

Teacher Guide

MICHIGAN ADULT EDUCATION

Contextual Education for the GED



LEADING A HEALTHY LIFESTYLE

Table of Contents

Introduction to the Teacher.....	3
LESSON PLANS.....	7
Lesson 1.1: Staying as Healthy as We Can Be – We All Have a Choice.....	9
Lesson 1.2: Medications - Over the Counter or Prescription.....	11
Lesson 1.3: ER vs Urgent Care – You’ll Just Have to Wait.....	15
Lesson 2.1: Sleep - Too Tired to Think Straight.....	17
Lesson 2.2: Decisions About Smoking - John’s dilemma.....	19
Lesson 2.3: Second Hand Smoke - Is it Fair to Ban Smoking? You decide.....	21
Lesson 2.4: Smokeless Tobacco – Scamper’s Mishap; Rudy’s Awakening.....	23
Lesson 2.5: What is the Real Cost of Smoking?.....	25
Lesson 2.6: Alcohol - Todd’s Journey to Freedom.....	27
Lesson 2.7: Drug Addiction – Before I Knew It.....	29
Lesson 3.2: Bulimia or Anorexia – Dying to Lose.....	37
Lesson 3.3: GERD – The Fire in the Gut.....	39
Lesson 4.1: Influenza – How Do You Know the Difference?.....	41
Lesson 4.2 Communicable Diseases: Shingles and Measles.....	43
Lesson 4.3: Staph Infection Infections – Edgar Thought it was a Spider Bite.....	45
Lesson 5.1: Cancer Diagnosis – You Can’t Ignore It.....	47
Lesson 5.2: Breast Cancer – And Yes, Men Can Get Breast Cancer Too!.....	51
Lesson 5.3: Colon Cancer – We Have to Talk About It.....	55
Lesson 5.4: Skin Cancer – Prevention, Prevention, Prevention.....	57
Lesson 6.1: Respiratory Problems: I Can’t Breathe.....	59
Lesson 6.2: Chronic Bronchitis - Coughing Too Much.....	61
Unit Six Lesson Three: Asthma – The Right to Breathe Right.....	63
Lesson 6.4 Pneumonia; Leo’s Lost Thirty Days.....	65
Lesson 7.1: Diabetes Type II - Going Forward, Rosa’s Story.....	69
Lesson 7.2: Heart Attack – 911.....	71
Lesson 7.3: Heart Disease - Are You at Risk?.....	75
Lesson 7.4: Renal Disease.....	77
Lesson 7.5: Arthritis – The Pain of It.....	81
Lesson 8.1: Oral Hygiene & Root Canal.....	85
Lesson 8.2: Gum Disease (Periodontal Disease).....	89
Lesson 9.1: Eye Examinations.....	91
Lesson 9.2: Glaucoma – You Are the Expert.....	95
Lesson 9.3: Macular Degeneration – Missing Part of the Picture.....	97
Lesson 10.1: Hearing Loss – Uh, What Did You Say?.....	99
Lesson Handouts.....	105

Introduction to the Teacher

Background

“Leading a Healthy Lifestyle” is an important addition to Michigan’s stable of adult education offerings. Every year the impact of lifestyle choices on our nation’s health becomes clearer. Many of the chronic conditions that make up a large portion of health care costs are fueled by choices people make. The obesity issue alone has led to predictions that the next generation may actually have a shorter life expectancy than what we enjoy today. These materials were designed to provide students with pre-GED skills exercises while they learn about choices which will likely lead to a healthier lifestyle.

This workbook and the teacher guide developed as a companion piece were written in the midst of the worst financial crisis our nation has seen since the Great Depression of the 1930s. We have learned that health care is one of the drivers of governmental costs as we work our way as a nation out of this recession. At the same time we know that our nation is coping with global competition on many economic fronts. Many international reports place the United States far down on the list of nations with strong health outcomes. The clear conclusion is that if we are to compete successfully economically we must also do a better job giving our people the tools to make lifestyle choices which will lead to healthier lives.

Michigan’s Office of Adult Education has had these materials developed to address precisely the issues described above. This is why “Leading a Healthy Lifestyle” was chosen for one of the sets of workbooks. Leaders also recognized that most people just don’t have time to study these issues even if they are important. A second great need was seen as the necessity to increase the number of Michigan residents who complete classes and subsequently pass the GED Test. Student retention is a critical element in GED attainment. Studies have shown that students who persist are more likely to have better attainment of skills. It is thought that by including GED type skills imbedded within a healthy lifestyle practices curriculum we can have the best of both worlds.

Theory

The idea is that reading, writing, and mathematics skills needed to pass the GED Test can be learned within a real-life curriculum which focuses on health issues. This dual focus is expected to yield a double-duty benefit to students. First, course content will provide an organized approach to the mastery of GED skills. Secondly, course content will also focus on issues central to effective health lifestyle practices. The goal is to provide a themed course designed to help Adult Ed students become better informed as consumers of health services while they improve academic (GED) skills needed to function effectively in life, school and the workplace. The workbook functions as a springboard for discussion of issues facing today’s health consumer while the exercises in the teacher guide provide practice on GED type skills.

Topics addressed

“Leading a Healthy Lifestyle” is all about providing students with the tools to build healthy, chronic illness free lives. There are ten units in the workbook. Unit 1 “Health Care” is clearly the most important issue in the workbook. The first unit is all about the need for the individual to take charge of his or her own health choices. This concept sets the tone for all of the remaining units in the course. Unit 2 focuses on “Health Protection” and covers smoking, alcohol, drugs and stress. The health problems that result from lifestyle choices not only have a direct impact on the user but also have costs to others and society in general. Unit 3 is all about “Digestive Health” and speaks to issues related to obesity including various eating disorders. Clearly “Communicable Diseases”, the topic of Unit 4, is important to us all. Fear of various epidemics has gripped many in our world over the past few years. Understanding disease and how it spreads is important to us all. Nothing strikes fear into our hearts as much as a diagnosis of “Cancer” which is covered in Unit 5. Three types of cancer are covered the severity of which can be lessened through early detection. Unit 6 has a focus on “Respiratory Problems” Our students are bombarded with TV commercials for various breathing

aids. This unit aims to rip away the mystery which surrounds such ailments. Unit 7 describes several “Chronic Medical Conditions” the impact of all of which can be lessened by changes in habits. We know that Unit 8 which covers “Dental Health” is often the most neglected area of our personal health. Many people only see a dentist after problems arise and long after prevention of complications is possible. Units 9 and 10 on “Eye and Ear Care” are also areas of our personal health which are often neglected until it is too late to address the underlying cause of the issue. These units are designed to raise the focus of our students relative to these issues.

The topics and content in these materials are nothing new. Most of the information contained here is readily available through the internet or shows on cable television. The value of this material is that in the class there are peers who all face the same issues and have thoughts on how to address the underlying lifestyle changes needed so all can lead healthier lives. The writers have done the research so discussion can proceed from a base point of knowledge. The students will have points of view which have been shaped by their own biases. It is important to have research on hand which will point to effective ways to address issues as they arise. There is an old saying, “without knowledge we can not act and with knowledge we can not help but act”. The problem is that most of us don’t have the time to do the research and so we continue to lead unhealthy lifestyles that make it likely that a health crisis is right around the corner. Many of our adult education students who come to class with the goal of attaining the GED credential do so because they believe the GED will help them improve their job prospects. Employers are becoming more cognizant of the cost to the bottom line of employees who lead fundamentally unhealthy lives. While the GED in such cases is a tool to improve economic status it may be of little use to the potential employee who has developed a lifestyle that ignores the potential health impact of unhealthful habits. Employment questionnaires which ask questions with regard to smoking or alcohol use and the like must be answered truthfully because lying on an application is cause for termination. Awareness is the first element as one looks to make changes in our lives. The content of “Leading a Healthy Lifestyle” is designed to help students achieve both academic and lifestyle goals at once. Each can improve in GED type skills while gaining tools to take control of issues facing their own families now or in the future.

Teacher Guide

This teacher guide was developed to provide the instructor with tools to enlarge the student’s understanding of topics which impact health while they are engaged in activities that will improve competence on pre-GED skills. Each lesson in the teacher guide begins with a list of the Pre-GED Skills to be acquired by the student. Instructors are then provided with ideas on Introducing the Lesson in such a way as to give students the necessary background information on the topic at hand. This information supports the topic as addressed in the corresponding workbook Scenario and should be covered before the class begins reading the scenario. As a part of the introduction the vocabulary listed at the start of each scenario should be reviewed. If there are questions on the meaning please consult the “Glossary” at the back of the workbook. The “Glossary” definitions were chosen to approximate the usage of the term in the scenario.

Most lessons also have handouts which should be copied and handed out to the class at the appropriate time. The work on these handouts is the kind of problem solving activity which mirrors pre-GED skill acquisition.

The plan is that each scenario will need about ½ hour of class time to cover with an additional hour to complete the work on handouts designed to address pre-GED skills and discuss any issues that arise from the handout activity. The idea is that during a 3 hour class two scenarios may be completed.

Each teacher guide lesson also contains “Going the Next Step – A Challenge Activity”. These supplemental activities are included to further enlarge the student’s understanding of the issue and are designed to require some out of class time to complete. Many “Challenge Activities” use the internet to accomplish the task. They are designated as “supplemental” since we know some sites are without classroom access to the internet. All instructors should encourage students to complete the activities if at all possible. Completion of the

supplemental activities will often require the students to come together to share results from their search. We know that internet search engines are critical to the solution of workplace problems. If at all possible please organize the class to facilitate student engagement in these activities.

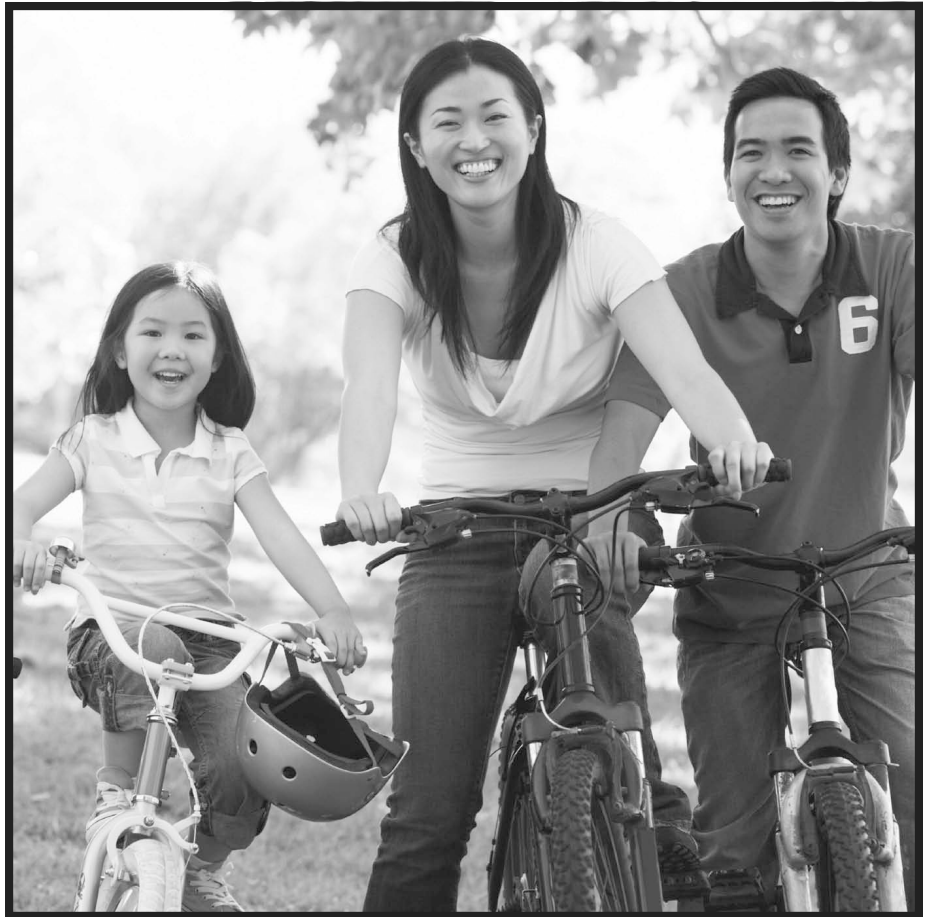
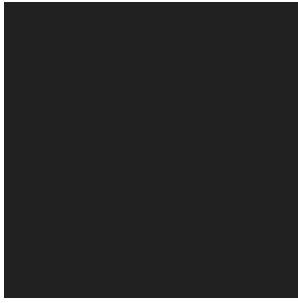
Course Length

When delivered as a stand alone course this curriculum was designed to be completed in about 60 hours. There are 36 scenarios in the workbook. If the planned schedule is workable a three hour class will finish two scenarios and the accompanying activities in the teacher guide. Adherence to this schedule takes 18 three hour class meetings. The additional hours to make-up a 60 hour offering would take care of orientation and assessment. The authors do not believe that this content is all a student will need to achieve pre-GED skill attainment but will provide most will a great start toward that goal.

Summary

These materials are designed to test the thought that reading, writing and mathematics skills can be learned within a real-life context that will yield a double benefit to students. “Leading a Healthy Lifestyle” was chosen as the real-life context for this course because of the negative impact that poor health life choices have on the individual as well as the larger society. It is hoped that “Leading a Healthy Lifestyle” will be a welcome addition to the Michigan Adult Education Program.

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LESSON PLANS

Lesson 1.1: Staying as Healthy as We Can Be – We All Have a Choice

Pre-GED Skills

- LAW 1: Organize information before writing, using prewriting strategies such as brainstorming and graphic organizers, according to the type and purpose of writing.
- SSS12: Identify a statement that accurately summarizes the main idea of a paragraph in a social studies selection.
- LARS1: Determine the main idea and identify relevant details, facts, and Patterns of organization in fiction, non-fiction, poetry, workplace, and community documents.

Introducing the Lesson

Discuss how we have options to do something or not do it, at all ages and stages of our lives. Point out that even as a small child we were extended the option to play a game, wear a particular shirt or eat a certain food. Explain that if we were properly guided and presented with options when we were young, we tend to have the ability to activate a logical and informed approach to make decisions. As we mature, the options we decide on can have an impact on our lives. If we decide out of habit, whim, or peer pressure, to name a few, without the logical consideration of alternatives or their potential consequences, we can potentially find ourselves in a unhealthy life style.

Read the scenario and discuss the options that were apparent in the scenario. Discuss what it means to be responsible for your own health and how potentially unhealthy habits can have a consequence on a person's health. Discuss the questions as a class.

Presentation of Targeted Pre-GED Skills

In a large group, discuss and list some healthy habits that promote a healthy life style. After listing and discussing their ideas, divide students into four groups. Explain to students each group will read one part from an information handout, “Staying Healthy”. Also explain that the information handout is covering only four topics – Eating Right, Physical Activity, Practice Prevention and Stress Management. Instruct students to analyze and evaluate the information in their group in order to draw conclusions that they will share with the class. Stress to the students that they are looking for the main idea of their selection along with any details that are listed and then will share this condensed information with the large group.

After sharing each part of “Staying Healthy”, students will then look at the original list that they made about healthy habits. Students will then decide where each of their listed items would be included in “Staying Healthy” or if a new topic needs to be identified.

Using the information gather from “Staying Healthy”, have students write a persuasive essay. Explain that they will write the essay to convince a friend, spouse, or parent to begin a healthy eating and exercise program. Tell them to give examples to support their position and to make sure they list the characteristics or statistic to make their point. Make sure students include an introductory paragraph, at least one body paragraph, and a conclusion.

Going the Next Step – A Challenge Activity

Using Handout #2, How Healthy are You?, students fill out the chart about their own healthy living habits, and then tally up their marks. Inform students that they can go to www.healthfinder.gov, which is sponsored by the National Health Information Center, to find out additional information about healthy living.

Lesson 1.2: Medications - Over the Counter or Prescription

Pre-GED Skills

- LAR 7 Recognize stereotypes, bias, persuasion and propaganda techniques in print and non-print messages.
- LAR 8 Check the validity of information, differentiate fact from opinion, and recognize how personal values influence conclusions.
- LA 11 Select appropriate language and word choice in written selections according to intended audience, purpose, and occasion.

Introducing the Lesson

Ask the students to raise their hand if they have used medicine. Ask what medicine they use the most. Usually this will be an over-the-counter medicine. Discuss their use of prescription medicines.

Ask students to divide a sheet of paper into thirds. Tell them to list what they know about over-the-counter medicines (OTC) in the left column. Ask students to then list what they know about prescription medicine in the right column. Tell them you want to know information such as how you buy this medication, why you buy the medicine, who is it used by, are there directions, etc.

Then tell the students to state in the middle column how both OTC and prescription medicines are the same. Then discuss as a class.

Some suggestions are as follows:

OTC – can be bought without a prescription; more than one person can use the medicine at the same time, it can be purchased in a store that is not a pharmacy, self diagnosed, etc.

Prescription – must be prescribed by a doctor, only one person can use the medicine, must be bought at a pharmacy, etc.

Both – Directions must be followed correctly, warnings should be followed, children should only take medication with the supervision of an adult, a pharmacist can answer questions about both, etc.

Ask students to read the scenario and discuss the questions.

Presentation of Targeted Pre-GED Skills

Explain to students that over-the-counter (Non-prescription) drugs play an increasingly vital role in America's health care system. Today, six out of every ten medications bought by consumers are OTC drugs. OTC drugs are defined as drugs that are safe and effective for use by the general public without seeking treatment by a health professional. They are safe and effective when you follow the directions on the label and as directed by your health care professional. OTC drug products are those drugs that are available to consumers without a prescription.

There are more than 80 therapeutic categories of OTC drugs, ranging from acne drug products to weight control drug products. As with prescription drugs, the Center for Drug Evaluation and Research, or CDER oversees OTC drugs to ensure that they are properly labeled and that their benefits outweigh their risks.

OTC drugs generally have these characteristics:

- their benefits outweigh their risks
- the potential for misuse and abuse is low

- consumer can use them for self-diagnosed conditions
- they can be adequately labeled
- health practitioners are not needed for the safe and effective use of the product

US Food and Administration <http://www.fda.gov/Drugs/default.htm>

Preparation: Bring in samples of empty boxes of over the counter (OTC) medications for flu, colds, sinus, allergies, pain, stomach relief, etc. along with the package inserts. If that is not feasible, go on the internet and print out different products labels.

Bring in empty prescription medication bottles along with any additional information given or you might have to ask at the pharmacy for written information about different medications. Try to have at least one antibiotic.

Ask students if they have bought different OTC medications at a pharmacy. Ask students if they have ever read the information provided on the packages of the OTC medications that they have bought at the pharmacy. Ask what they remember is listed on the packaging or product and list their answers on the board or on chart paper. Now ask what packaging comes with prescription medicines. Again ask what they think is on the packaging and list as well.

Divide students into small groups. Give each group an OTC and a prescription medicine. Pass out Handout #1 and explain to the students they will use the medicine information to fill out the information on the handout.

After the students complete the assignment, discuss as a class some observations the students may have made such as:

- the Drug Facts are listed in a consistent order for all medicines
- awareness of how medicine should be stored
- there is a phone number for questions and comments

Presentation of Targeted Pre-GED Skills if needed

Ask students to define “medicine” or “drug”. List their definitions on the board or chart paper. Tell them several of the following definitions and discuss.

A medicine or drug is:

1. a chemical substance that affects the processes of the mind or body.
2. any chemical compound used in the diagnosis, treatment, or prevention of disease or other abnormal condition.

The Free Dictionary by Farlex

4. any natural or artificially made chemical which is used as a medicine
5. The science or practice of the diagnosis, treatment, and prevention of disease (in technical use often taken to exclude surgery).
2. A drug or other preparation used for the treatment or prevention of disease.

Wikipedia - Dictionary.com - Answers.com - Merriam-Webster

Pass out Handout #2: What do You Know? to the students. Tell students they will have to decide if the type of product listed is a medicine or not. They will write yes or no. In the second part of the handout, students will decide if the statement is true or false. Tell students to be prepared to defend their answer.

Going the Next Step – A Challenge Activity

Discuss with the students about the different medicines that are advertised in magazines and on television. Ask if they think these ads are all approved by the Federal Drug Administration, FDA.

Tell them that no, the FDA does not oversee the advertising of over-the-counter (OTC) drugs. The Federal Trade Commission (FTC) is responsible for regulating OTC drug ads. The FDA regulates advertising only for prescription drugs. The FDA also oversees the advertising for certain kinds of medical devices, such as hearing aids, the lasers used in LASIK procedures, and contact lenses.

Explain that an ad names a drug, says what condition it treats, and talks about both its benefits and its risks. An ad must present the benefits and risks of prescription drugs in a balanced fashion.

Prescription drug advertisements can provide useful information for consumers to work with their health care providers to make wise decisions about treatment. However, your healthcare provider is the best source of information about the right medicines for you.

Ask the students to write an answer to the following questions. They can use the internet to research information if needed.

1. How do you feel about a drug company advertising their prescription product on TV?
2. Do you think this is a good idea? Why or why not?
3. Who does this kind of advertising benefit? Why?
4. Who do you think is the best source of information about the right medicine for you? Why?

Lesson 1.3: ER vs Urgent Care – You’ll Just Have to Wait

Pre-GED Skills

- LA 2 Draft and revise writing that shows completeness, provides logical progression, has clarity of ideas, and applies basic rules of grammar usage including capitals, punctuation, and subject-verb agreement.
- LA 3 Use the writing process to generate, organize, connect, express, and evaluate ideas applying basic rules of sentence structure.
- LARS 11 Recognize language that shapes reactions, perceptions, and beliefs.

Introducing the Lesson

Discuss why someone would call 911, (medical, fire or police emergency). Inquire what would be a medical emergency: heart attack symptoms, barely breathing, bad car crash, severe burns, severe allergy attack, someone unconscious, or any other life-threatening situations. Ask what kind of information is asked if there is a medical emergency: what is wrong with the injured party, what symptoms are being exhibited, name, address, etc.. Ask if anyone has ever called 911 and discuss their experience if they want to share why and what happened. Read the scenario and discuss the questions.

Presentation of Targeted Pre-GED Skills

Explain to the students that there are many different types of healthcare facilities.

List on the board or chart paper all of the student’s responses when you ask them for the different types of health care facilities that are available.

Discuss what students know about an emergency room (ER). Ask if anyone has ever had to go to the emergency room. Write ER on the board or chart paper. Ask why someone would go to the ER. List the student’s reasons. Discuss what students know about an urgent care clinic. Write urgent care clinic on the board/chart paper and list student’s responses. Ask if anyone has ever been to an urgent care clinic. Ask why someone would go to an urgent care clinic. Inquire where else would a person go to seek medical care. List the student’s replies to these two questions.

Pass out Handout #1: Where Do You Go and Why? Ask students to fill out the three sections. Give students an opportunity to share their answers with another student, then discuss as a class.

Make sure you cover the emergency room, urgent care centers, doctor’s office, specialty doctor’s office, pharmacy, or stay at home.

Stress to students that the Emergency Room is necessary when a person is suffering from a life or limb threatening condition, such as severe wounds, a heart attack, chest pain, signs of a stroke, severe shortness of breath, poisoning, uncontrollable bleeding, etc. Emphasize that going to an emergency room instead of scheduling an appointment with your doctor takes time and valuable emergency room resources away from a patient that may have a life threatening emergency. Going to the ER may be more expensive and it is well known for a long wait time if one does not have a true emergency.

However, Urgent Care Centers can sometimes takes the place of going to the doctor. They usually have more flexible hours so they may be more convenient if someone needs stitches, has a rash, eye, nose or throat infection, skin lesions, flu, broken bones, back pain, drug testing, physical, immunizations and vaccinations, x-rays, or lab tests, and their doctor’s office is not open. They cost less than the ER and they take most

medical insurance programs.

Family Doctor - is a doctor that you have scheduled appointments, usually once a year, for a physical or any other time if there is a need. It is always better to see your regular doctor that knows you and has your medical history, but sometimes their office is not open when you need to go.

Specialty Doctor- is a doctor you have been referred to for additional specialized treatment for an ailment. There are many different medical specialists, too many to list.

Pharmacist - fills prescriptions, is a great source of medical information and helps their customers in areas like with recommending or finding an over the counter medication.

Stay at home is sometime the best remedy for a lot of ailments.

Presentation of Targeted Pre-GED Skills if needed

Preparation: Using the Handout # 2 – Where would I Go?, cut the strips apart and hand one to each student.

Tell students that they are going to decide where a person should go depending on the ailment written on their slip. Sometimes there may be several places a person could go depending on the circumstances. Let the students give extenuating circumstances if they are so inclined. Students will then tell which facility they would go to and why. Tell students to be prepared to defend their answer if someone else disagrees.

Going the Next Step – A Challenge Activity

Tell the students to use the internet, the library, or other sources to research and write about the different health care providers in the area. Tell them to define what each one does, hours of operation, who can go, insurance and costs, as well as advantages and disadvantages.

If students are interested in finding urgent care centers, the following website has them listed by state and then by town.

<http://www.superpages.com/yellowpages/C-Urgent+Care+Centers/S-MI/>

Lesson 2.1: Sleep - Too Tired to Think Straight

Pre-GED Skills

- **LAW 1** Organize information before writing, using prewriting strategies such as brainstorming and graphic organizers, according to the type and purpose of writing.
- **LAW 8** Write text, notes, comments, and observations that demonstrate comprehension of content.
- **MS 7** Collect, organize and display data in tables, charts, and graphs, describing any patterns and relationships in the data.

Introducing the Lesson

Begin the discussion by yawning, shaking your head and rubbing your eyes. Say to the students, “I don’t think I got enough sleep last night. Does this happen to you?” Continue to ask the students if they think they get enough sleep every night and what happens when they don’t get enough sleep. Ask how they act the next day. Next ask how many hours of sleep are necessary each night. Record their responses on a chart on the board.

Ask the questions: If I am not able to breath (for several minutes), what happens? (I would die) If I am not able to drink water (liquids over several days), what happens? (I would die) If I am not able to eat (for weeks), what happens? (I would die), If I am not able to sleep, what happens? (I would die). Ask if sleep is essential to healthy living and survival.

Explain that sleep is essential just like breathing, drinking and eating. Ask why we think we can “get by” on less sleep than what is recommended. Explain that sleep deprivation affects our alertness, moods and decisions. It increases accidents at home, at work and while driving. Read the scenario and discuss the questions.

Presentation of Targeted Pre-GED Skills

Pass out Handout #1 Time Log. Explain to the students that they will fill out a log of their day’s activities. Explain that they may enter their usual activities from any day or for just today, beginning with the start of their day and ending with going to bed. It does not matter whether they work nights, days, or rotating shifts, they should still consider their day. They may include naps and other sleep times. Explain that they will give the time: 9 – 9:30/ ½ hour; driving to work, work, √ priority.

Give students a chance to record a day’s activities. Tell students that a priority is either a “must do” a “should do”, or a “want to do”, etc. activity. Have the students decide which priority each activity is and write it in this column. Tell students if it is a “must do” activity to highlight this activity.

Ask students if they checked sleep as a “must do” priority. Then say, if sleep is really something we must do in our daily lives, why do we suffer from sleep deprivation sometimes, or all the time? Ask students the following questions: Do you sometimes feel like you are in a gray fog? “Are you sleep deprived? How do you know?” Ask the students to think about the quality of sleep they are getting. Tell them the activity log is our first step in analyzing our sleep.

Ask what are the signs of sleep deprivation? Explain that some possible signs of a sleep disorder are excessive daytime sleepiness, insomnia, irritability, difficulty thinking, difficulty falling asleep, snoring, waking frequently, waking too early or falling asleep very quickly. Read the scenario and discuss the questions.

Have students make a pie chart on a separate sheet of paper showing their sleep time and how much time

they spend during a day on other daily activities: school, relaxation, work, exercise, family responsibilities, etc. Ask students to compare their graphs. Then ask if they need to make an adjustment to their daily routine, especially if they are not getting enough sleep. Ask how many students showed that they were not getting enough sleep and discuss why or why not. Let students give suggestions on how to get more sleep.

Tell the students that the American Academy of Sleep Medicine says there are 81 different sleeping disorders; for example, insomnia, narcolepsy, night terrors, REM sleep behavior disorder, restless leg syndrome, sleep apnea, sleepwalking, and snoring. Pass out Handout # 2 Sleep Disorders and Their Definitions. Have students match the different sleep disorders with the definition. Discuss these different conditions as a class and ask if any of the students are familiar with any of these sleep disorders.

Answers: a. 2, b. 6, c. 7, d. 1, e. 3, f. 8, g. 4, h. 5

If computers are available there are several websites that would help students obtain more information about the different sleep disorders and provide much more detailed or graphic information. Some Internet sites are: <http://www.nhlbi.nih.gov/about/ncsdr/index.htm> (National Center on Sleep Disorders Research), <http://www.webmd.com> and www.mayoclinic.com.

If students are interested in taking a sleep test to see if they might have a sleep disorder, refer them to the following website and let them take the Sleep Test. <http://www.sleepnet.com/>

Going the Next Step – A Challenge Activity

Choose one topic to research.

If you have a computer available there are many websites that will give you a lot of information, such as <http://psychology.about.com/od/statesofconsciousness/a/SleepStages.htm> , www.sleepdex.org/stages.htm , and <http://www.webmd.com/sleep-disorders/excessive-sleepiness-10/sleep-101?page=2> for Stages of Sleep and www.thehormoneshop.com/biologicalclocks.htm and www.essortment.com/biological-clock-58165.html for Biological Clock.

You can also get good resources from the school library. Even your classmates may have some knowledge about these topics that you could use.

- A. Stages of Sleep: Find out about the different stages of sleep. Explain what happened in each stage. Explain why researchers recommend healthy amounts of sleep. You might want to use a timeline format to show the stages of sleep.
- B. Biological Clock: Describe what is meant by the term “biological clock,” and research its history. How do organisms have internal timers? You may want to use a report style format with different heading titles for the information you have found. One example of a biological clock in the human body is the release of melatonin throughout the day. During the day, melatonin levels are low, but at night they increase and we get sleepy.

Lesson 2.2: Decisions About Smoking - John's dilemma

Pre-GED Skills

- SSS 9 Identify contrasting points of view and compare interpretations of issues from a social studies selection.
- SSS 03 Interpret and demonstrate comprehension of written and graphic information from Civics and Government selections.

Introducing the Lesson

Elicit discussion about how we all make choices in our lives. Talk about how some choices have little impact on our lives and how other choices alter our lives. Give examples of little impact choices: whether to wear the black shoes or brown shoes, go shopping or watch TV, etc.

Ask students if they smoke or smoked or know someone who smokes or has smoked. Inquire if smoking is a life altering choice.

Discuss:

- Why do people start to smoke? – (some answers could be: to look mature, to fit in, to be like their friends, to experiment, peer pressure, stress, pleasure, relax, control weight, energize, feels good, boredom)
- Does advertising entice people to smoke? How?

Have students read the scenario and discuss the questions as a class. List the pros and cons of John's dilemma – should he take the job or not.

Presentation of Targeted Pre-GED Skills

Pre-GED Skill – Contrasting Points of View

Explain when discussing or arguing about two or more different points of view, it is expected that the positive and negative aspects of each case are measured. This gives both sides the opportunity to evaluate the argument, consider the evidence and decide what set of standards the conclusion should be based upon.

Divide students into groups of four. Make available the handout Law Suits Against Big Tobacco for the students. Students will discuss two of the thousands of cases in which individuals have sued the tobacco companies. Two students will represent the plaintiff and two will take the side of the tobacco company. Students will write down their evidence, evaluate it and come to a conclusion.

Lukacs v. Philip Morris – John Lukacs was awarded \$37.5 million dollars after a jury found Philip Morris culpable based on false representation.

Cipollone v. Liggett Group – the jury awarded the widower of Rose Cipollone \$400,000 in damages, the first successful case against big tobacco in a smoker's death based on failure to warn of the dangers. The ruling was later overturned in appellate court;

Pre-GED Skill – Interpret and Comprehend Written Information

Elicit why it is important to be able to interpret and comprehend written information when trying to determine what would be the best program to pursue in order to quit smoking.

Have students identify different programs that might help a person quit smoking. Provide the Quit Smoking Support Group for each student. Read the descriptions about the Quit Smoking Support Group programs, then in small groups discuss and list what each support program offers. Compare what the groups found

and let them decide which group they think would be the most helpful and why.

Going the Next Step – A Challenge Activity

Students can find additional information about smoking or quitting smoking on the internet, and then share the information with the class.

Some Web pages that might have information are:

National Cancer Institute, www.cancer.gov/tobacco

Center for Disease Control and Prevention, www.cdc.gov/tobacco

Office of the Surgeon General, www.surgeongeneral.gov

Health and Human Services, www.smokefree.gov

Michigan Quit Line, <http://www.michigan.gov/mdch/0,1607,7-132--210613--,00.html>

Suggested topics students should search for:

- facts about smoking
- statistics on smoking
- how to quit smoking

Did you know?

One out of six deaths each year are tobacco related.

Lesson 2.3: Second Hand Smoke - Is it Fair to Ban Smoking? You decide.

Pre-GED Skills

- LARS 4 Use background knowledge to make simple and complex predictions about content, purpose, and organization of a reading selection.
- SSS 15 Describe the legal and ethical rights and responsibilities of an employee, an employer, and a citizen.
- LAW 1 Organize information before writing, using prewriting strategies such as brainstorming and graphic organizers, according to the type and purpose of writing.

Introducing The Lesson

Ask students what they think being fair (just, equal) means? Ask if it is a matter of perception? Could there be more than one fair choice? Pose the following questions and have students reply yes or no. (They could raise their hands or write yes or no on a piece of paper.)

1. I treat all people equally.
2. I don't take advantage of people.
3. I consider all facts, both pros and cons, before making a decision.
4. I make my decisions by evaluating consistent rules and criteria.

Ask if they think if someone, who answered yes to all those questions, would be a fair person? Discuss if they think they are a fair person. Ask if what is fair to them could be possibly not fair to someone else?

Read the scenario and discuss the questions. Extend asking the questions to include other places that do or do not ban smoking. Elicit from students how many smoke, how many have tried to stop and how many have never smoked. Let them share stories of starting to smoke or trying to quit.

Presentation of Targeted Pre-GED Skills

Pre-GED Skill – Using background knowledge to make simple and complex predictions

Give students the Matching Words and Definitions handout. Ask students to match the vocabulary word with the definition on the worksheet. Go over the pronunciation of the words and definitions. Ask students to give additional definitions of the vocabulary words if they are familiar with the word.

Answers to the Matching Words and Definitions:

1. f, 2. a, 3. h, 4. e, 5. j, 6. b, 7. c, 8. g, 9. d, 10. l, 11. i, 12. n, 13. r, 14. p, 15. q, 16. k, 17. o, 18. m

Pre-GED Skill - Describe the legal and ethical rights and responsibilities of an employee, an employer, and a citizen.

Have students divide into pairs. Use the worksheet; Really, I Didn't Know That. One person will read the script for Lela and the other person will read the script for Lou. Discuss if the students knew of the ingredients found in cigarettes. Discuss the students' reactions to learning about the ingredients found in cigarettes and the fact that these deadly ingredients are found in second hand smoke also. Ask if this changes anyone's mind about why it is necessary to ban smoking in public places. Ask if a person has a right not to be exposed to second hand smoke especially if they are a non-smoker or a child.

List on the board some reasons to ban smoking in public places. Ask who has the authority to implement the ban in a public building? Ask if they think that laws can actually change the behavior of our citizens?

Going the Next Step – A Challenge Activity

Discuss what is a fact and what is an opinion (fact- something that can be proven) ;(opinion - something that cannot be proven to be true or false).

Pass out the handout “Defying a No Smoking Sign”. Let students read the questions and discuss them as a class. Let students read some facts from the American Cancer Society. Ask students to respond in writing how they feel about this statement; whether they agree or disagree.

Lesson 2.4: Smokeless Tobacco – Scamper’s Mishap; Rudy’s Awakening

Pre-GED Skills

- SSS5: Interpret and demonstrate comprehension of written and graphic information from Economics selections.
- SSS6: Understand, analyze and interpret visuals/graphics such as political cartoons, graphs, diagrams, posters, maps, charts, tables, and videos.
- MS13: Analyze and interpret the real-world data found in charts, graphs, and tables from newspapers or magazines.

Introducing the Lesson

Ask students if they are familiar with smokeless tobacco. From those who aren’t, ask what they think smokeless tobacco is. From those who are, elicit some of their experiences with it.

Survey the students about their smoking habits.

- For those students who smoke, ask if they would consider smokeless tobacco to be an alternative to smoking?
- For those students who do not smoke, ask if they have or if they would you try smokeless tobacco?

Survey the students to see who thinks smokeless tobacco is safer than smoking?

Have students read the scenario and discuss the questions as a class. Ask the students to look at the scenario from the perspective of Rudy, Scamper, and their mother. Discuss how this calamity might have been avoided.

Presentation of Targeted Pre-GED Skills

Divide the class into small groups. Pass out Information Sheet #1 to each student. Have students read Information Sheet #1. Tell students in their groups to:

1. Discuss the future of Orbs and other dissolvable tobacco products.
2. Discuss what they think about the \$354 million budget for advertising dissolvable tobacco products? Let them tell what else might be done with some of that money?
3. Discuss if all health safety information on dissolvable tobacco products has not been accumulated, what do they think the findings will tell us?

Have a one person record the findings in each group. Have another person selected to report back to the large group their findings from the recorded notes.

Discuss as a class all the groups findings and record highlight group consensus.

Pass out Information Sheet #2. Discuss the findings on the chart, The Toll of Tobacco in Michigan. Have students then figure out the answers to the following questions.

1. According to the chart, what was the approximate population of high school students in Michigan?
Answer: (whole = part ÷ % = $111,200 \div 0.19 = 585,263$)
2. Approximately how many male high school students used smokeless tobacco?

Answer: (part = whole x % = $585,263 \times 0.15 = 87,789$)

3. If we estimate that a pack of cigarettes cost \$6.00, how much money was spent by kids according to the chart?

Answer: (# of packs x cost of pack = $26.1 \times 6.00 = \$156.6$)

These are extra questions that can be used.

4. Approximately how many adults were living in Michigan at the time of the survey?

Answer: (whole = part \div % = $1,492,100 \div 0.20 = 7,460,500$)

5. Approximately what percent of adults in Michigan die as a result of smoking tobacco?

Answer: (part \div whole = $14,500 \div 7,460,500 = 0.19\%$ rounded to the nearest hundredth)

Going the Next Step – A Challenge Activity

Have each student survey 10 people outside of class. Explain they will ask the following questions and record the survey results:

- Do you smoke now?
- Have you ever smoked?
- Have you ever used smokeless tobacco?

Students will then bring the survey results to class and combine them with the other students' results.

As a class, compile the survey results on a graph and discuss the findings.

Data Bars:

1. How many smokers?
2. How many smokers also use smokeless tobacco?
3. How many former smokers?
4. How many former smokers use smokeless tobacco?
5. How many non-smokers?
6. How many non-smokers use smokeless tobacco?

Suggestion: Bar graph

Vertical axis – number of smokers

Horizontal axis - 6 bars, different color bar for smoker and smokeless

Lesson 2.5: What is the Real Cost of Smoking?

Pre-GED Skills

- MS1 Add, subtract, multiply, and divide with whole numbers, common fractions, decimal fractions, and percents.
- MS17 Use estimation to predict results of a calculation and check the reasonableness of the solution.

Introducing the Lesson

Explain that being aware of our daily activities, whether it is spending money, eating the correct foods, or tracking calories that are burned from exercising can produce some unexpected results. Ask students if they keep track of their daily spending. Inquire what items they spend the most on every day (coffee, coke, cigarettes, or snacks). Inquire if they add this daily spending to their budget along with their monthly bills. Then talk about how much money they save each day. Ask where they put their savings on a daily basis. They will probably say they spend money daily, but rarely save money daily.

Read the scenario and discuss the questions. Have students share their experiences when answering the questions.

Presentation of Targeted Pre-GED Skills

Pre-GED Skill – Add, Subtract, Multiply and Divide, with Estimation to

Predict Results and then Check the Solution

Students will be estimating and calculating the dollar amount of the cost of smoking. They will also calculate the cost of smoking as a percentage of a person's income. Ask students if a pack of cigarettes cost \$5.79, estimate quickly about how much money is spent each week if someone smokes one and half packs per day at that price. Record the answers. The amount is \$60.80 so the estimate should be somewhere around that price. Find out who got the closest and let that student explain how they figured the estimate.

Pass out the handout The Real Cost of Smoking to each student. Students will then figure out the cost of cigarettes per week, per year and for five years. Students will also figure the cost of cigarettes as a percentage of a person's income.

Going the Next Step – A Challenge Activity

The following activity is to encourage students to reflect on their learning. It helps students review what they have learned and it helps to identify areas that may need further clarification.

Pass out 3 x 5 index cards or post-it notes. Ask students to write one thing that they learned from the last activity on one side. On the other side they write one question they still have.

Collect the index cards or place post-it notes on a chart. Review the students' responses.

Use the questions for a review the next day.

Lesson 2.6: Alcohol - Todd's Journey to Freedom

Pre-GED Skills

- SSS 9 Identify contrasting points of view and compare interpretations of issues from a social studies selection.
- SSS 03 Interpret and demonstrate comprehension of written and graphic information from Civics and Government selections.

Introducing the Lesson

Write some key words on the board – alcohol, inebriated, alcohol dependence, drinking problem, alcoholic, withdrawal. Discuss what these words mean to the students. Jot down their definitions next to each word. Ask if they know of someone who has a problem with alcohol. Ask how they can tell the person has a problem with alcohol. Ask if they know of someone who drinks and does not have a problem with alcohol. Ask how they know the difference.

Read the scenario and discuss the questions. Ask if they know someone like Todd. Inquire if they have tried to help a friend that has alcohol dependence. Let them explain how and what they did to help and what was the result. Inquire if they have let someone who has had too much to drink get in their car and drive. Ask if they would do something different now.

Presentation of Targeted Pre-GED Skills

Explain that most people receive mixed messages about alcohol consumption. It is displayed as a desirable lifestyle in movies, media, and advertisements and is considered to be socially acceptable. On the hand, alcohol is portrayed as dangerous to our health and well being and should be avoided. Continue to explain that alcohol has been used for centuries in social, medical, cultural, and religious settings and that most people think alcohol can be used responsibly.

However, alcohol can also be used in excess resulting in health, social, legal and other problems.

Discuss with students where they have found out information about the effects of alcohol. They will generally answer what they know comes from their family, peers, the media, and personal experimentation. Explain that often their information contains errors, half-truths, and opinions and they are going to do an exercise that will debunk some of the misconceptions that people have about alcohol use. Explain that sometimes because we have conflicting messages, combined with misunderstandings and misinformation, we do not make responsible decisions about alcohol use.

Prep work for exercise: Duplicate “Myths About Alcohol” for each group of students. Cut the “Myth” statements apart and put the strips in an envelope labeled “Myths”. Duplicate the same number of “Truths About Alcohol”. Cut the “Truth” statements apart and put in a separate envelope labeled “Truths”.

Divide students into groups so each group will have a “Myths” envelope and a “Truths” envelope. Instruct students to match the myth with the truth.

Answers to Myths and Truth:

1 – E, 2 – K, 3 – H, 4 – M, 5 – F, 6 – B, 7 – D,

8 – I, 9 – L, 10 – G, 11 – N, 12 – C, 13 – A, 14 – J

Discuss if they know how someone can tell if they have an Alcohol Problem. Using Information Sheet #3, let students read and discuss the four questions. This was developed by Dr. John Ewing.

Answer: A good first step is to answer the brief questionnaire below, developed by Dr. John Ewing. (To help remember these questions, note that the first letter of a key word in each question spells “CAGE.”)

Explain if they think they know someone who would need help, there is information about Alcoholics Anonymous (AA) included.

Going the Next Step – A Challenge Activity

Ask students if they think there is a cost to alcohol abuse. Ask what those costs would be. Handout Information Sheet #4 to the students. Let them brainstorm and then list some items that would cost a family, or the government, or the state, or victims of a crash. (alcohol treatment facility cost, hospital visit, mental impairment, ER visits, car crashes, injuries, pre-mature deaths of babies, fires, imprisonment, DUI, court, employer costs of loss of productivity, etc.

For additional information, students can go to the web.

<http://www.suite101.com/content/the-economics-of-alcoholism-and-drug-abuse-a85770>

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1478160/>

<http://alcoholism.about.com/cs/alerts/1/blnaa11.htm>

Lesson 2.7: Drug Addiction – Before I Knew It

Pre-GED Skills

- LARS 2 Apply additional information to presented text, such as current events, diaries, biographies, historical, social, economic, ethical, and legal documents.
- SS 5 Apply the scientific method to reading material and graphics to predict possible outcomes and solve problems.
- SSS 15 Describe the legal and ethical rights and responsibilities of an employee, an employer, and a citizen.

Introducing the Lesson

Ask the students, which is worse; taking a dose of a prescription medication that is higher than what is prescribed or using illegal drugs? Both are dangerous and shouldn't happen.

Which is safer, an over-the-counter (OTC) drug, prescription drug, or an illegal drug? If OTC or prescription drugs are misused, they are just as harmful as illegal drugs.

What OTC or prescription drugs do you think are most often misused? Cough and cold medicines.

What do you think influences someone to take illegal drugs? (maybe the image of movie stars and rock stars using drugs, or pressure from friends or classmates, etc.)

Read the scenario and answer the questions.

Presentation of Targeted Pre-GED Skills

Ask students if they can name the different drugs that are used today. Write the names of these drugs on chart paper or the board. Discuss the different drugs by asking the following questions:

What does the drug look like? What kind of effect would a certain drug have on your mind or body? (LSD – hallucinate) Why do people use drugs? Who uses drugs? Where do people get drugs? Do drugs scare you? Why?

Note to the teacher: The drugs are broken into different categories. The most common ones are:

Category Name – Street Name – Effects

Cannabinoids – Hashish, Marijuana: Euphoria; relaxation; slowed reaction time

Opiate – Heroin, Opium (morphine, codeine, papaverine) Semi-synthetic Opioids are hydromorphone, oxycodone, and hydrocodone: Euphoria; drowsiness; dizziness; impaired coordination

Stimulants – Cocaine, Amphetamine, Methamphetamine: increase heart rate, blood pressure; feelings of exhilaration; increased energy, mental alertness; anxiety; panic

Club Drugs – MDMA (methylenedioxy-methamphetamine)(ecstasy, speed, uppers) flunitrazepam (roofies, Mexican valium) GHB (liquid ecstasy, scoop): mild hallucinogenic effects; lowered inhibition; chills; impaired memory

Dissociative Drugs – Ketamine (cat valium) PCP and analogs (angel dust, peace pill) Salvia divinorum (magic mint, Sally-D), Dextromethorphan (found in cough and cold medications): feelings of being separate from one's body and environment; impaired motor function; anxiety; tremors; memory loss

Hallucinogens – LSD, Mescaline, Psilocybin (magic mushrooms): altered states of perception and feeling; hallucinations; nausea; perception disorder

Other Compounds – Anabolic steroids: no intoxication effects/ hypertension; blood clotting and cholesterol changes; liver cysts; hostility and aggression

Inhalants – (solvents, gases, nitrites, laughing gas): varies by chemical; stimulation; loss of inhibition; loss of motor coordination

After the class discussion, pass out Handout #1: How much do you know? Have students select their answers individually then discuss as a class to see how much they know about the different drugs.

Answers: 1 – d, 2 – d, 3 – b, 4 – d, 5 – d, 6 – c, 7 – a, 8 – c, 9 – a, 10 – d, 11 – c, 12 – d, 13 – false, 14 – a

Presentation of Targeted Pre-GED Skills if needed

Engage in a discussion about drug addiction. Tell students that it is very difficult to predict who and who won't abuse drugs. Make it very clear that addiction is a very complex disorder. It is self-destructive and very hard to stop. Emphasize drug addiction only happens if you use drugs. Repeated drug use alters the brain. These brain changes interfere with your ability to think clearly, exercise good judgment, control your behavior, and feel normal without drugs. At this point there is now a physical and psychological need for drugs. This is true with both legal and illegal drugs.

Ask students if they are aware of someone who uses drugs. Ask how they know someone is using drugs or is addicted to drugs. Discuss the “signs” or warnings that someone may be abusing drugs.

Preparation: Cut up Handout # 2: What Are the Warning Signs of Drug Abuse?, into strips. Give each student a strip. Designate a place where a student would go if their strip indicated a student might have a drug problem. Designate another place to stand when the behavior described indicates that the person is not likely to be suspected of drug abuse.

Each student will read their strip aloud and the class will decide if the behavior described May Be a warning sign of drug abuse. (Some behaviors may be signs of other issues such as mental illness.) The student will go and stand in the designated place.

Going the Next Step – A Challenge Activity

Ask students to think about a person who uses marijuana. Tell them that this drug affects the heart rate, the emotions, the memory and the judgment of the person. Now ask them how marijuana might specifically affect the performance of a person who is an airline pilot, or a dentist, or a truck driver, etc.

Divide the class into groups and assign each a different type of commonly abused substances: Cannabinoids; Opiates; Inhalants; Hallucinogens; Stimulants. Have them research the characteristics of each category of substance, including the ways they affect the brain and body, and which commonly known drugs fall into which category. Encourage students to find videos, power point presentations and articles. Have students present their findings.

Lesson 2.8: Stress – It’s Part of Life

Pre-GED Skills

- LA 8 Write text, notes, comments, and observations that demonstrate comprehension of content.
- LA 11 Select appropriate language and word choice in written selections according to intended audience, purpose, and occasion.
- SS 8 Interpret scientific concepts through the application of comprehension skills and visual processing skills to life science selections.

Introducing the Lesson

Ask students to make a list of things they consider stressful, whether the stress comes from home, work, school or community. Then tell students to take a separate sheet of paper and to decide on one item that causes the stress (stressors) in their life that they can share and write down with some details about why this situation is so stressful. Tell students, because someone else will read about your stress, do not sign your name. This activity will be anonymous.

Tell the students to wad up their sheet of paper and then exchange their wadded paper at least three times or they could put these wadded up papers in the front of the room and you then distribute them.

Each student should now have a new wadded up paper (not their own). Tell the students to read the new stressor and reflect on what they have read. Ask if this would be a stressful situation to them. Ask them why or why not without going into details about what was read. Example: I am a passive driver and aggressive drivers do not bother me. I do not relate to this person’s stress.

Try to bring out to the class the conclusion that one person’s stress may not be stressful to someone else. Tell students what is important is how we cope with stress. Read the scenario and answer the questions.

Presentation of Targeted Pre-GED Skills

Explain to students that everyone faces multiple and challenging situations that create stress and everyone reacts to stress in different ways. Explain that we can not avoid stress, it is part of life. However, most of us have never had guidance as to how to handle and manage our stress. Sometimes by identifying our source of stress and then learning strategies to deal with that stress we can make positive changes in our lives that lead to a healthier life.

Ask students to define stress (your body’s response to a change or a difficult situation). Ask what some physical effects of stress on the body are and then discuss. Ask what some psychological effects of stress on our minds are and then discuss. Finally ask what some behavioral responses that we exhibit to stress are and discuss whether they are positive or negative. Explain that stress affects people in three different areas: our body’s response (physical) and that then triggers thoughts and feelings in our mind (psychological), and that triggers a response to how we behave (behavioral), whether it is positive or negative. Emphasize that our body and mind are connected. When our body is healthy, our feelings are more positive, and then when confronted with a stressful situation, our behavior is more positive.

Pass out Handout #1: Stress – How It Affects Us. Tell students that they will look at the headings: Body, Mind or Behavior and decide which “response to stress” will go under which heading.

Presentation of Targeted Pre-GED Skills if needed

Explain that not all stress is bad (getting married, having a baby, a promotion), but your body still reacts the same, whether it is good stress or bad. Explain that whether stress is good or bad, being able to manage stress can help improve your health. Sometimes we have to accept the stress that comes with the situation. When someone close to us dies, we have to accept the situation and then cope with our feelings. There are some stressors, such as a person or particular place that we should avoid. You might need to make a change in the way you do things if it causes a lot of stress, for instance if your job is too stressful, you might need to change jobs. Sometimes we have to change the way we think about a place, person or situation and use self-talk to change thinking negative thoughts to positive thoughts.

Explain that it is important to identify areas that are out of balance in our lives. Pass out Handout #2: Finding Balance in Life to the students. You might want the students to make a pie chart that illustrates how their lives are divided up between the demands at home, work, school and personal. Tell them it is important to care for ourselves and identify where we are out of balance in lives. Explain that in order to manage our stress better, it is very important to find ways to relieve the stress.

Going the Next Step – A Challenge Activity

Explain to students that managing stress can be difficult because there are different kinds of stress.

Tell them the American Psychological Association identified 3 different types of stress:

- Acute
- Episodic
- Chronic

Each one of these types of stress has their own characteristics, symptoms, duration, and treatment approaches.

Explain that there is also Complex Post Traumatic Stress Disorder that comes from stressors that happened a long time ago but continue to negatively affect the immune system because of emotional and cognitive issues that have their own characteristics, symptoms, duration and treatment.

Pass out Handout #3: Different Types of Stress. Ask students to use the internet, library or other sources, to research the different types of stress and write a short description of each including the characteristics, symptoms, duration, and treatment. When students are finished, they should report their results back to the class. Discuss their research.

Lesson 3.1: Obesity – It’s Time, Today is the Day!

Pre-GED Skills

- MS 1 Add, subtract, multiply, and divide with whole numbers, common fractions, decimal fractions, and percents.
- LARS 8 Check the validity of information, differentiate fact from opinion, and recognize how personal values influence conclusions.
- LAW 3 Use the writing process to generate, organize, connect, express, and evaluate ideas applying basic rules of sentence structure.

Introducing the Lesson

Note: Students will need a blank sheet of paper.

Ask students to pretend that their paper is a plate. Ask students to draw their favorite meal from their favorite restaurant and label the food. Encourage students to estimate the size of their portions and then draw them on the plate. If they chose steak, say to draw the size of the steak they would be served. If they chose French fries, say to draw the serving size of fries they would be served, etc. Compare drawings and size portions.

Ask students if they have any idea how many calories would be in their favorite meal. Inquire again if they know how many calories they consume each day. Find out if students know how many calories they should have each day. Ask students if they are over-eating and why.

Explain that over 60% of Americans are overweight. Elicit discussion about why this would be the case in America. Discuss how Americans expect to have a lot of food served at a restaurant and at home. Discuss how this problem could be eliminated and what the result might be.

Discuss with students how to relate portions to everyday items so they can estimate servings. For example:

Woman’s fist or baseball –serving of vegetables or fruit,

Rounded handful - about one half cup cooked or raw veggies or cut fruit, a piece of fruit, or ½ cup of cooked rice or pasta - this is a good measure for a snack serving, such as chips or pretzels,

Deck of cards - a serving of meat, fish or poultry or the palm of your hand (don’t count your fingers!) - for example, one chicken breast, ¼ pound hamburger patty or a medium pork chop,

Golf ball or large egg - one quarter cup of dried fruit or nuts,

Tennis ball - about one half cup of ice cream,

Computer mouse - about the size of a small baked potato,

Compact disc - about the size of one serving of pancake or small waffle,

Thumb tip - about one teaspoon of peanut butter,

Six dice - a serving of cheese,

Check book - a serving of fish (approximately 3 oz.)

Read the scenario and discuss the questions.

Presentation of Targeted Pre-GED Skills Overweight or Obese?

Before we go any further, we really need to be sure we know the difference between obese and overweight. We will also want to know what morbid obesity is. Have students determine the definitions from a group consensus and confirm their information by referring to a computer or dictionaries.

NOTE: Any discussions need to be sensitive, especially if there are students in the class who are visibly overweight or obese.

See Handout #1: Body Mass Index Chart. It is an easy and very visual way to tell if you are overweight or obese. (There are many variations available online and also in brochures at healthcare centers.)

There are many ways to determine if a person is overweight, but experts believe that a person's body mass index (BMI) is the best way to assess an adult's weight in relation to their height.

How Your BMI is Calculated

- Multiply your weight in pounds by 703.
- Divide that answer by your height in inches.
- Divide that answer by your height in inches again.

For example, a woman who weighs 270 pounds and is 68 inches tall has a BMI of 41.0. BMI is not always an accurate way to determine whether you need to lose weight. Here are some exceptions:

Body builders: Because muscle weighs more than fat, people who are unusually muscular may have a higher BMI.

Elderly: It is often better to have a BMI between 25 and 27, rather than under 25, for the elderly. If you are older than 65, for example, a slightly higher BMI may help protect you from osteoporosis.

Children: While an alarming number of children are obese, do not use this BMI calculator for evaluating a child. Talk to your pediatrician about the appropriate weight for your child's age.

Have each student calculate their BMI. Use the chart to compare their calculations.

Let's look into the life of an obese person. When we say we need to be sensitive to the feelings of others, we also need to be sensitive to the underlying reasons why people can become obese. Discuss:

1. problems obesity causes
2. reasons why people become obese
3. the various ways obese people can get help
4. information needed for an obese person to change

Encourage students to write notes during your class discussion or have a couple of students be the scribes on the board as the points are made. The following are some suggestions:

Problems that Obesity Causes	Reasons for Obesity
shopping for clothes	Overeating
getting / keeping a job	Cushing's Syndrome
exercise	medications that make you gain weight; e.g., steroids
using airplanes	where employed – may get "free" food, maybe work at a resort, a candy factory, a restaurant, etc.
discrimination	Prader-Willi Syndrome
poor service at stores or restaurants	Hypothyroidism
capacity to walk or climb stairs	genes

Problems that Obesity Causes	Reasons for Obesity
medical / life insurance	environment – family behaviors, habits
life expectancy	uneducated about good diet
Health issues: Difficulty breathing, Sleep apnea, Skin problems, Diabetes, Different diseases	metabolism
	very low esteem and self-image, depressed

Support Programs to Lose Weight	
e-Diet program	Celebrity sponsors
Nutri System program	Nutritionist services
Bariatric surgery, gastric bypass	Weight Watchers
Cutting off fat, plastic surgery	Weight Loss Clinic
Jenny Craig program	Fitness centers such as Curves
TV program “The Biggest Loser”	Personal trainers

A Healthy Diet Is

The website www.mypyramid.gov has the best and most complete information about recommended daily allowances (RDA) in our diet, daily calorie needs, choices and amounts, and other excellent information and support for healthy eating and living. However, there are many other websites on nutrition and healthy eating for healthy weight management.

Pass out Handout #2: A Healthy Diet Is. Discuss what is included in a healthy diet. Discuss “triggers” and how to identify a trigger. Discuss the questions and what someone can do to start being healthier.

Then pass out Handout #3: It’s Time – Today’s the Day. Have students record their day’s food consumption and compare how their diet relates to the variety and portions of what is recommended. Point out that your food and beverage consumption is INTAKE. Ask what would OUTPUT be? Exercise! If your intake is more than your output, you gain weight.

In conclusion you want the students to become aware of how these factors influence society and influence our perceptions about obesity.

Going the Next Step – A Challenge Activity

Read All About It!

Imagine seeing these headlines of the following articles in the newspaper one day:

- Obesity Cure Found
- Village in Peru Wants Spouses to be Overweight
- Airlines Making Ticket Prices Based on Body Weight
- No More Junk Food Produced in the State
- Fat People Found to Live Longer and are Healthier
- Obesity Becomes a Thing of the Past
- State Government Passes Health Law – Obesity is Illegal

Work alone, with another student, or in a small group. Develop one of the stories.

What are the possibilities that the topic you chose might become a reality? What would be the pros and cons if your topic did become true?

Lesson 3.2: Bulimia or Anorexia – Dying to Lose

Pre-GED Skills

- LARS 11 Recognize language that shapes reactions, perceptions, and beliefs.
- LARS 10 Ask questions and make comments and observations that reflect understanding and application of content, processes, and experiences.
- LAW 1 Organize information before writing, using prewriting strategies such as brainstorming and graphic organizers, according to the type and purpose of writing.
- LAW 2 Draft and revise writing that shows completeness, provides logical progression, has clarity of ideas, and applies basic rules of grammar usage including capitals, punctuation, and subject-verb agreement.

Introducing the Lesson

Perceptions and Sensitivity - Show the students the pictures of women and men on Handout #1: People Pictures or use pictures from a magazine or newspaper to illustrate various body types. Have the students write what comes to mind as quickly as possible in a list under each picture without censoring their thoughts, or writing their names on their papers.

Gather the papers from the students. As you read out some comments, have a student(s) list these comments on the board for all to see. Discuss:

- Is there anything positive about being fat?
- Is being labeled “obese” different than being labeled “overweight” or being labeled “fat”?
- Is being thin the same as being “underweight”? Are there negatives associated with “thin”?
- Which body image is healthier?
- Is there a difference in our perceptions of the body images of men versus women?

Tell the class that these are perceptions we have of different body images. From where did we get these views? Is it good to have these perceptions? Should we challenge the truth of them? Why? Read the scenario and discuss the questions.

Presentation of Targeted Pre-GED Skills

Divide the class into pairs and pass out Handout #2 Compare Anorexia and Bulimia - Venn Diagram. Tell the students to re-read the scenario again and then using the Venn Diagram they will write the characteristics that belong to an anorexic in the left circle and write the characteristics that only belong to a bulimic in the right circle. Finally write the characteristics that both an anorexic and bulimic share in the middle.

At the bottom of the page answer the question: What conclusions can be made when comparing these two eating disorders?

Ask students to think about what their perception is of their body image. Give them a moment to think. Ask where they think these perceptions come from in our society. Ask if they think the media has an influence on our perceptions of how we should look, eat and act.

Using an assortment of magazines, newspapers or posters, have students find examples of advertising’s influence on our society’s view of eating, both over indulgence or dieting, body image, self-esteem, how to

look younger, etc. Tell them to cut these items out and be prepared to share with the class how they influence us on a daily basis as to how we perceive ourselves and others. You may want to make a collage with comments underneath and display in the classroom.

They could find ads about “all you can eat”, decadent desserts, healthy eating, diets, exercising, looking your best, success, cosmetic surgery, being natural, aging gracefully, etc.

Ask if the messages in the ads can be conflicting messages, for example we need to eat healthy but we are enticed with decadent desserts. Let them explain their reasoning. Ask if this can lead to eating disorders. Again let them explain. Ask what positive messages and behaviors they can exhibit to counteract the mixed messages. Examples:

- Recognize the mixed messages in our society
- Appreciate themselves and others for who they are, the talents they have and not just on physical appearance
- Practice good healthy eating and exercising
- Try to achieve balance in their lives to alleviate stress
- Seek out help if needed

Going the Next Step – A Challenge Activity

Beauty is...

“Beauty is skin deep.” “Beauty and the Beast.” “Beauty is as beauty does.” “The inside is what counts, not the outside.” “Beauty is in the eye of the beholder.”

We have heard beauty talked about a lot, throughout history. Perceptions, right?

Without thinking of anyone else’s idea of “beautiful”, write down the name of someone you know who you believe is beautiful. It could be you or someone else. Write the person’s relationship to you, for example, yourself, husband, daughter, grandfather, friend, neighbor, etc. Yes, you could write about yourself!

Underneath make a list of all the characteristics that make this person beautiful.

Number the list in order of importance to you. Group your characteristics into three categories. Think why this person should be considered “beautiful” to the world.

Now you are ready to write an essay about this beautiful person.

Start by writing about the person you believe is beautiful and his/her relationship to you. Then keep writing about all the characteristics of this person, keeping your writing to three paragraphs. Finally, end your essay with a paragraph about why the world should appreciate this person living in it and why others should see this person as “beautiful”.

This first writing is called your “draft”. Go over it again to make sure you have correct grammar, complete sentences, and proper spelling. Now write your final story.

Lesson 3.3: GERD – The Fire in the Gut

Pre-GED Skills

- SS 6 Understand, interpret and explain graphic models and stimuli such as diagrams, photographs, drawings, maps, graphs, charts and tables.
- LA 3 Use the writing process to generate, organize, connect, express, and evaluate ideas applying basic rules of sentence structure.
- SS 8 Interpret scientific concepts through the application of comprehension skills and visual processing skills to life science selections.

Introducing the Lesson

Ask students why digestion is so important. Make sure they cover that through the process of digestion, our food and drink are broken down into small molecules of nutrients, then absorbed through the blood stream and carried throughout the body for nourishment and energy.

Note to the teacher: When beginning this lesson we want to find out what the students know about the topic and if they have ever had some personal experience with GERD. Start by asking the students if they have ever stuffed themselves at a meal. Inquire how they felt afterwards. Ask if anyone has ever had indigestion or “heart burn”. Ask them to describe how it feels. Then inquire if anyone knows why or how we get indigestion. Ask if anyone takes any medication for indigestion or heart burn. Ask what products are available for this stomach disorder.

Discuss and list on the board or chart their answers. Tell students to read the scenario and discuss the questions.

Presentation of Targeted Pre-GED Skills

Discuss what the students know about the “digestive system”. Have either chart paper or the board to record their answers. Note: Decide ahead of time specific categories (choose only three or four) that you want to discuss without putting any headings on the chart paper/board. These categories might be the: parts of the digestive system, role of the digestive system, the procedure of digestion, any malfunctions/ diseases, symptoms of diseases, treatments or diagnosis of diseases that happen to the digestive system. As students respond, write their answers in the different columns without the category heading. When students have finished responding, ask them if they could put a category heading for each column.

Pass out Handout #1: The Upper Digestive System. Divide students into small groups and have students read the information. Explain that this is from Discovery Health and they are only reading about the upper digestive system. If they want to read the rest of the article they can go to the website. When students have finished reading, have them discuss the information to see if the group can come up with additional information to add to the class chart discussing the digestive system. Then as a class add the new information to the chart.

Presentation of Targeted Pre-GED Skills if needed

Begin by reviewing the digestive system – esophagus, stomach, small intestine, large intestine, and colon, emphasizing that they are only studying the upper digestive system which is the esophagus and stomach.

Ask if they know the symptoms of GERD. Add a column to the board or chart paper. Then ask if they know the recommended treatment for GERD. Again record what they say on the board or chart paper.

Divide students into small groups and pass out Handout # 2: Symptoms and Treatment for GERD. Allow time for students to read the handout. Let students discuss the material read in their group. Have one student report out the additional information they learned to add to the class chart about GERD.

Going the Next Step – A Challenge Activity

Explain when the recommended treatment for GERD does not work, a doctor needs a further evaluation of the situation. Pass out Handout #3: Diagnosis of GERD to each student. Inform students they need to do some research on the different tests that may be used by a doctor. Tell students that they will look up at least two of the tests on the internet and report back on their findings. Let them know that they need to describe the test and the procedure with as many details as they can find. Advise students that each test has at least one website listed that can be used to obtain information; however, there are many websites that they can go to for information about this particular test. Encourage the students to be tenacious in their research and remind them to write down where they found their information including the website.

Reconvene as a class. As individual report back, have them discuss the process and the findings that found and the various websites. Add to the categories on the board or on charts. Review all the information they have found out about the digestive system and GERD.

Lesson 4.1: Influenza – How Do You Know the Difference?

Pre-GED Skills

- LAW3: Use the writing process to generate, organize, connect, express, and evaluate ideas applying basic rules of sentence structure.
- LAW10: Write critical responses to logical, ethical, and emotional appeals in written and oral communication.
- LARS1: Determine the main idea and identify relevant details, facts, and patterns of organization in fiction, non-fiction, poetry, workplace, and community documents.

Introducing the Lesson

Ask if anyone has had a cold. Inquire if they knew how they caught a cold or how to prevent getting a cold. Find out if anyone has had the flu. Ask how they caught the flu. Ask students if they know what communicable diseases means. See if they can name some communicable diseases (measles, chicken pox, AIDS, flu, mumps, polio, etc.). Give the students the definition that a communicable disease is an illness or infection that can be spread from person to person, animal to person (rabies, avian influenza, etc.), animal to animal or person to animal. Explain that communicable disease is the leading cause of sickness and death worldwide and is the third leading cause of death in the United States.

Read the scenario and discuss the questions.

Presentation of Targeted Skills

Pre-GED Skills – Making wise decisions about communicable diseases and protecting yourself and your family against contagious diseases.

Give students “Cold vs. Flu” handout. Let students either read the information with a partner or in a small group. Allow time to answer the questions in complete sentences.

Answer Key for Cold vs. Flu handout.

1. Chills and headache are uncommon symptoms for a cold.
2. Stuffy nose and sneezing are uncommon symptoms for the flu.
3. Fever is rare with a cold.
4. The flu has a rapid onset within 3-6 hours. The flu hits hard and includes sudden symptoms like high fever, aches and pains.
5. The answer is false.
6. Any three of the “Six Ways to Fight Flu”.

Students will be able to write with an emotional appeal to another person. Discuss the writing assignment. Explain that each student will write a persuasive letter to another student convincing them they need to get vaccinated against the flu this year. Tell students the letter must be at least three paragraphs. Remind students to indent the paragraphs, include an introductory paragraph, at least one body paragraph, and a conclusion paragraph. Make sure the paragraphs have complete sentences and use transition words. Ask students to check their grammar, capitalization and punctuation.

Going the Next Step – A Challenge Activity

Tell students that they can find some additional information on how to prevent the spread of communicable

diseases and pandemic influenza and how to take care of someone who catches the influenza on the following web site:

http://www.michigan.gov/documents/mdch/Stay-At-Home_Toolkit__291651_7.pdf

- Look at page 10 of the Stay at Home Toolkit: Seasonal and Pandemic Influenza, the “Influenza Stay at Home Toolkit”. Check your home to make sure you have all the items you need to combat influenza.
- You may also want to read page 12, “How to Care for Someone with Influenza”.

Another web site you might like is the Center for Disease Control. It explains who should get a flu vaccine.
http://www.cdc.gov/flu/pdf/freeresources/general/take3_step_vac.pdf

Lesson 4.2 Communicable Diseases: Shingles and Measles

Pre-GED Skills

- LAW1 Organize information before writing, using prewriting strategies such as brainstorming and graphic organizers, according to the type and purpose of writing.
- LARS1 Determine the main idea and identify relevant details, facts, and patterns of organization in fiction, non-fiction, poetry, workplace, and community documents.
- LARS14 Locate, organize and interpret written information for a variety of purposes, including classroom research, decision making, performing a school or real-world task, and to develop personal preferences in reading.

Introducing the Lesson

Inquire if anyone has had chickenpox or measles. Mention the letters “CDC” (Center for Disease Control and Prevention, <http://www.cdc.gov/>) and ask if they know what the initials stand for. Explain that the CDC is one of the major operating components of the Department of Health and Human Services and that its’ mission is to collaborate to create the expertise, information, and tools that people and communities need to protect their health – through health promotion, prevention of disease, injury and disability, and preparedness for new health threats. Explain that the CDC has studied measles and shingles to attempt to eliminate the diseases.

Discuss the following words:

- Contagious (when a disease or infection can be easily passed from one person to another through infection.)
- Immunity (the body’s defense system, which helps protect it from disease, bacteria and viruses.)
- Infection (an invasion to a part of the body by an organism which can grow and produce toxins which can harm the body)
- Virus (a small infectious agent that can replicate only inside the living cells of organisms)
- Infectious (you can give someone the disease you have during this time)

Presentation of Targeted Skills Pre-GED Skill

Ask students the definition of a communicable disease. They should be able to explain, it is an illness that is transmitted from one infected person to another. Ask students if they think measles is a communicable disease. Have students explain why measles would be easy to spread. Ask if they think shingles is a communicable disease. Ask why or why not.

Divide the students into small groups. Explain to students that they are going to read about two communicable diseases; measles and shingles. Pass out Information Sheets #1 Measles and #2 Shingles.

Answering the questions:

1. Ask students what was the consensus of the group for question #1?
2. Ask students what the consensus was about how they would educate people about communicable diseases.

Using Information Sheet #1 and #2, ask students to use a dictionary, computer or context clues to define any of the words in bold print they do not know.

Pass out Handout #4 Graphic Organizer. Instruct students to write “Measles” in one box at the top of the organizer and “Shingles” in the other top box. Ask students to then write three details about each disease from their Information Sheets. Check as a class to make sure they have written important details.

Ask students to put away their Information Sheets and Graphic Organizer. Pass out the Handout #4 Shingles Quiz. Check answers and discuss.

Shingles Quiz – KEY 1- B, 2- D, 3- C, 4- True, 5- B, 6- C, 7- D, 8- A

Going the Next Step – A Challenge Activity

Be a concerned citizen. The following are websites about communicable diseases. Learn as much as you can about these health risks. Report to the class about something you learned.

This website is a list of communicable diseases. Click on them to find more information.

<http://www.health.ri.gov/disease/communicable/diseaselist.php>

This website lists diseases in Michigan.

http://www.michigan.gov/documents/Reportable_Diseases_Chart_136393_7.pdf

This website shows how the Michigan congress voted on a bill about communicable diseases.

<http://www.michiganvotes.org/2009-HB-4899>

Lesson 4.3: Staph Infection Infections – Edgar Thought it was a Spider Bite

Pre-GED Skills

- LARS1 Determine the main idea and identify relevant details, facts, and patterns of organization in fiction, non-fiction, poetry, workplace, and community documents.
- LARS3 Analyze text organization to understand the presentation of ideas in materials, which illustrate cause and effect, compare and contrast, and relating events in chronological order.

Introducing the Lesson

Ask if anyone has ever had impetigo or a boil or if they have known someone who has.

Inquire how someone gets these infections. Make sure to explain that this is a form of staphylococcal bacteria, often referred to as “staph”. Ask if they think a staph infection is serious and let the students explain why. Remind students that MRSA, which stands for methicillin resistant staphylococcal aureus, is a strain of staph that is resistant to most antibiotics. Discuss what they have heard about MRSA.

Have students read the scenario and discuss the questions.

Discuss how contagious diseases spread? Explain that some diseases, such as colds or a staph infection, are spread by contact. Explain this activity simulates how diseases can spread.

This is an adapted activity from Curtis Schneider from the National Teacher Training Institute showing how diseases can spread.

Place 10 squares of each color of paper, yellow and blue, in envelopes for each person in your class. Place an “X” on the inside flap of one envelope. The student that gets this envelope will have a contagious disease.

Pass out an envelope to each student, letting the students know that one person will receive an envelope with a special marking. State that there will be one person that will be infected. Ask the students to not disclose if they are infected or not. Explain that the person who gets the envelope with an “X” on the inside flap is the infected person.

Instruct students to shake hands with another student. At that time they will pass one of the squares of colored paper – blue paper there is no infection – yellow paper they are infected. With the first hand shake, the only person infected (“X” on the flap) will now infect another person by giving them a yellow square.

Students continue to shake hands with each other. Each time they will pass a blue square if they are not infected, but if they have received a yellow square from an infected student, they must then pass out only yellow squares from then on.

After about four hand shakes, have students sit down. Ask for the first infected student to stand up. Then ask all the other infected students to stand up.

Ask students to hypothesize what would happen if they were allowed to shake hands one more time. Discuss how contagious diseases can rapidly spread. Exponential growth is possible when one person infects one other person, those two persons infect two other persons, those four infect four other persons, etc.

In small groups, have students read Information Sheet #1. Let students discuss the information. Ask students to then re-read the following passage from Information Sheet #1, (the second paragraph):

Unfortunately, with the overuse of antibacterial cleansers and sprays, some bacteria strains are becoming immune to the products making the soaps and sprays ineffective. The more antibacterial products we use the more certain strains of bacteria become immune to them. Some bacteria have actually become stronger and more difficult to control!

Have the group discuss what they think the writer is trying to say in the passage. Have students discuss the following questions:

How does the writer feel about antibacterial cleansers? What is he trying to suggest? Do you agree with the writer? What can be done about the problem? Is there a problem? Is using antibacterial cleansers and sprays doing us more harm than good?

Students in their groups should compile their answers and then discuss as a class.

Going the Next Step – A Challenge Activity

Students often have the vocabulary for one definition in health terminology, but may not identify a synonym related to the terminology.

Distribute *Worksheet #1* and discuss definition of synonyms. Allow students to refer to *Information Sheet #1* and a dictionary or thesaurus.

Answer KEY: 1. G, 2. E, 3. H, 4. A, 5. K, 6. B, 7. J, 8. L, 9. F, 10. C, 11. I, 12. D

Lesson 5.1: Cancer Diagnosis – You Can't Ignore It

Pre-GED Skills

- LAW 8 Write text, notes, comments, and observations that demonstrate comprehension of content.
- LAW 11 Select appropriate language and word choice in written selections according to intended audience, purpose, and occasion.
- LARS 13 Use a variety of reference materials, such as glossaries, magazines, newspapers, journals, and computer manuals, to gather information.

Introducing the Lesson

Announce to the class that current research shows that approximately 1 in 3 Americans will have cancer sometime in their life. Many students may already be personally involved with it somehow. Be aware that some students may be particularly sensitive to this topic.

Ask students if they mind telling if they have had some experience with cancer with family, a friend, or themselves. Give any student the opportunity to share with the class. This should not be a lengthy discussion, but rather a simple sharing of the facts that cancer has occurred in the lives of some students or individuals with whom they are close.

To make some statistics on cancer very obvious, have students number off in sets of 6. Ask all number 1 and 2 students to stand. Tell them that if this class population is representative of the American population, about 2 in 6 of the people in this room will develop cancer sometime in their life. Ask if this is a surprise? Ask why or why not?

Next have students number themselves in sets of 4. Ask all number 4's to stand. Explain that $\frac{1}{4}$ of the American population will die of cancer. Tell students that years of data have shown the number of people who now get cancer is less than in the past and the number of people who die from it is also less. Tell the class that they are going to discover the factors that have contributed to a longer life and a healthier life after cancer.

Presentation of Targeted Pre-GED Skills

Did You Know

Pass out Handout #1: Did You Know? You Can't Ignore It so students can read some pertinent information about cancer in general. As a class go through the facts presented and allow for some questions and sharing of students' background knowledge.

Everyday Health Problems

Review together some of the everyday health symptoms that a person might have that could be caused by cancer. As the students read through the list together, ask them why we might ignore some of these symptoms. See if students can realize that it could be due to the following factors:

- The media (TV, magazines, etc.) makes us think there is a simple over the counter solution.
- The media makes us think by going to the doctor we can get a prescription for anything and we will be okay.
- Life is busy and we are stressed, so such symptoms may be just “nerves” or “all in our head”.
- No health insurance; a visit to the doctor and medical tests may cost too much money.
- We are not training ourselves to “listen” to our own bodies and to know what is changing, and we are

not persistent in getting to the root cause of our health problem.

“Silent Killers”

Mention the idea that some cancers are referred to as “silent killers”. Ask students if they know what that means. Ask if they can relate the term silent killer to any of the everyday symptoms on the list and how that might be a silent killer. (The word silent refers to the fact that the symptom and the cancer may not seem at all related, such as jaundice and pancreatic cancer or stomach pain and liver cancer, or ‘silent’ can mean that the symptoms go on for a long time before the cancer becomes inoperable and fatal.) Together read the list of symptoms from the bottom of the handout. Discuss the following questions:

What do you think the problem is?

What should you do? Why would you choose to do this?

Do you know which cancer might be causing such symptoms?

Suggest that students may want to research different kinds of cancer. There are several excellent websites for information on any and all kinds of cancer and statistics, such as The American Cancer Society at www.cancer.org. It is important to find the most current statistics and notice the dates on any information found.

Life is like a Möbius Strip

Materials needed: scissors, tape, and a paper strip for each student by cutting

8 ½” x 11” sheets into 6 strips the long way. (Taping 2 strips together end to end to make longer paper strips may be easier to handle, especially for adult hands.)

Once each student has a paper strip tell them that they are going to twist the strip, match the top and bottom ends, and tape them together to make a ring.

If they need more specific directions, tell students to write an “A” on the top left corner, a “B” on the top right corner, a “C” on the bottom left corner, and finally a “D” on the bottom right corner of their strip. Then have students twist the paper strip bringing the ends together so that “A” touches “D” and “B” touches “C”. Then they need to tape the ends to make a loop. Students should draw a line down the middle of the strip starting at one end all the way to the other end before attaching. Tell students a line drawn starting from the seam down the middle will meet back at the seam but at the “other side”. Explain that if continued the line will meet the starting point and will be double the length of the original strip.

Ask if anyone has ever made such a strip or discussed this in a math class before. Inform the class if they do not know that what they have constructed, it is called a “Möbius strip”. A Möbius strip is a one-edged, one-sided loop. This single continuous curve demonstrates that the Möbius strip has only one boundary. (Look up on the Internet “Möbius strip” for a more information and activities)

Ask the students why this continuous loop, the Möbius strip, is a good analogy to use to compare the relationships among preventing cancer, getting cancer, and going on with life after cancer. In other words, ask if the students see that there is a continuous link in our lives between being healthy and dealing with health problems and recovering our health. Life is on-going and so are its problems with which we must deal.

Have students think about what they know about cancer now. Ask them to think about the various sites cancer can affect our bodies. List their responses about cancer sites (kinds of cancers) on the board.

Some kinds of cancer: brain, skin, retina, lung, bone, oral, pancreas, liver, stomach, colon, genital, breast, blood, and more

Divide the students into groups of 3. Instruct them to determine a list of things to do to prevent cancer, to notice it, and “catch it” before it becomes fatal. Students do not need to list the kinds of cancer.

Their list should be common advice tips for cancer. The advice should be expressed positively (do) as opposed to negatively (don't). The list may include the following:

Eat fresh fruits and vegetables and fiber, maintain a healthy weight.

Limit alcohol, caffeine, and sugary drinks.

Keep hydrated with water.

Exercise every day; keep moving.

Examine your body at least once a month to see if there are changes.

Develop a sense of what is normal for your body functions; "listen" to your body so you know when something is wrong.

Get regular screenings to know what is normal and good for your body.

Get regular checkups by a doctor.

Get informed and be aware.

Ask the students how they could present this advice in a way that would cause people to pay attention. Have students develop one of these ideas – a "deck" of cards that could be used in one-on-one information sessions with a healthcare provider, a poster to display, or a popular magazine sidebar for readers.

Going the Next Step – A Challenge Activity

Give students the opportunity to research cancer. There could be many reasons why this topic is of special interest. Remember, there were many times in the lessons that students could have had questions, but did not get answers addressed at that time.

Encourage students to make notes and keep a record of sites used as well as other resources. This is a good practice to learn when gathering data. Notes and resources/sites can be saved on a separate Word document and printed out.

This writing can be made into a research report to share with others. Revising writing is easier when using a word processing program, but the importance of the basics of effective sentence structure, good grammar, and proper spelling cannot be overlooked. Students can have other students do a peer review to give each other a better perspective of their work.

The skills of using Word, researching, saving a document, referencing sources properly are excellent computer skills to acquire.

Lesson 5.2: Breast Cancer – And Yes, Men Can Get Breast Cancer Too!

Pre-GED Skills

- LARS 2 Apply additional information to presented text, such as current events, diaries, biographies, historical, social, economic, ethical, and legal documents.
- LAW 3 Use the writing process to generate, organize, connect, express, and evaluate ideas applying basic rules of sentence structure.
- MS 13 Analyze and interpret the real-world data found in charts, graphs, and tables from newspapers or magazines.

Introducing the Lesson

Ask, “If I say the word “chest”, what do you think about?” Briefly discuss the word chest and any associations with “chest”. Hopefully the students will associate a man and his chest or even associations such as; treasure chest, chest of drawers, etc.

Ask “If I say the word “breast”, what do you think about?” Usually people associate a female with breasts. Discuss why they think that is true. Ask if men have breast, then discuss their answers.

Finally ask, “If I say “breast cancer”, what do you associate with this kind of cancer?” Discuss with the class that usually when we think of breast cancer, we first think of women, not men, and certainly not children. Tell students that it is a fact that men can also get breast cancer.

Lead the students into a discussion of what they know about breast cancer. You may need to be particularly sensitive to this topic because students may be personally involved with someone who has or has had breast cancer. Read the scenario and discuss the questions.

Presentation of Targeted Pre-GED Skills

Preparation: Cut out strips on Handout #1: Cancer Information and give a set to each student.

Begin the lesson on breast cancer by giving students some background information. Explain that you are going to give the students a short overview that is very simplistic about cancer. Instruct students as you go through the overview; the students need to put the strips in order. Explain that we are made up of cells and most cells have a nucleus, cytoplasm and cell membrane. The nucleus holds the cell’s DNA (deoxyribonucleic acid). Cells divide in our bodies by a process called mitosis, in which only healthy cells are allowed to multiply. This process allows the damaged cell to repair itself so that it can continue to multiply or destroy the damaged cell.

Explain that damage to our cells happen all of our lives. Sometimes, though, when a few genes in one cell become damaged or mutated, this can lead to cancer. Explain that usually there are tumor-suppressing genes, but when damaged, these genes tell the cells to multiply at the wrong time, creating mutations. This is how cancer starts.

There are many reasons why the genes become damaged, such as preventable lifestyle factors like smoking, unhealthy diet, lack of exercise and exposure to environmental elements known to carry a cancer risk. However, there are also unpreventable factors such as age and heredity that is known to be a risk factor for

cancer.

Make sure to explain that cancer is quite complex and that it is a combination of risk factors that lead to cancer, but once the cells become abnormal and begin to divide out of control they can develop into “tumors” or what we feel as lumps. We call cancerous tumors malignant (life threatening). Explain that not all tumors are cancerous. There are also benign (not life threatening) tumors.

Sometimes cancer cells break off from the main tumor and enter the blood stream or the lymphatic system, both of which are in constant proximity to the tissues of the body. When cancerous cells are carried between the various parts of the body, this process is called metastasis. Nodes in the lymph system can trap the cancer cells and if they are not successful in destroying the cancer cells, the nodes themselves may become sites of secondary tumors. Once the cancer has metastasized, it becomes more difficult to treat.

Early detection helps with the success of survival from cancer, which is why self-breast exams, medical screenings and mammograms are recommended. Check to see if students have put their strips in the correct order.

Ask students to answer the following questions:

1. What is cancer?
2. What are some preventable measures that a person can include in their lifestyle?
3. What are some unpreventable risk factors?
4. Why is it important to detect cancer early?

Additional information on mitosis:

- It is the division of the mother cell into two daughter cells, genetically identical to each other and to their parent cell. You can watch the process of mitosis on: <http://www.youtube.com/watch?v=VIN7K1-9QB0>

Additional information on genes:

- Each cell contains about 25,000 to 35,000 genes, which contain the characteristics of heredity. Cancer is a disease of genes gone awry. Genes that control the orderly replication of cells become damaged, allowing the cell to reproduce without restraint and eventually to spread into neighboring tissues and set up growths throughout the body.
- All cancer is genetic, in that it is triggered by altered genes. However, just a small portion of cancer is inherited: a mutation carried in reproductive cells, passed on from one generation to the next, and present in cells throughout the body. Most cancers come from random mutations that develop in body cells during one’s lifetime - either as a mistake when cells are going through cell division or in response to injuries from environmental agents such as radiation or chemicals.

<http://www.cancer.gov/cancertopics/understandingcancer/genetesting/page1>

Additional information on DNA:

- DNA, or deoxyribonucleic acid, is the hereditary material in humans and almost all other organisms. Nearly every cell in a person’s body has the same DNA. Most DNA is located in the cell nucleus (where it is called nuclear DNA)

Additional information on the lymphatic system:

- The lymphatic system aids the immune system in destroying pathogens and filters waste so that the lymph can be safely returned to the circulatory system.
- The lymphatic system xxx to remove excess fluid, waste, debris, dead blood cells, pathogens, cancer cells, and toxins from these cells and the tissue spaces between them.
- The lymphatic system also works with the circulatory system to deliver nutrients, oxygen, and

hormones from the blood to the cells that make up the tissues of the body.

Discuss why so many people make jokes about breasts and some people make up (pet) names for them. Discuss if the students think that they get images about breasts from what the media shows us. Ask if they think breasts are an important part of the identity that makes a woman a woman. Ask what else besides the physical parts of our bodies makes us who we are? (personalities, skills, likes, family, occupation, friends, activities, etc.) Ask if these traits are just as important as our physical body parts when identifying a person.

Ask if breast cancer is important to men also. (Make sure they are aware that men can get breast cancer too. Discuss why when thinking of men's bodies, there is reference to the chest instead of breasts.

Then mention that men's awareness about breast cancer also develops a sensitivity towards women in any of their relationships, whether the relationship is intimate or in the workplace.

Move the conversation to a more serious note and ask the students if they are aware of the risk factors or symptoms of breast cancer. Discuss what they know. Ask and discuss with the students what they know about mammograms and types of screenings to detect breast cancer. Pass out Handout #2; Breast Cancer Information. Instruct students to read the information and put the different information under the correct heading. Answers are below:

Risk Factors of Breast Cancer

- menopause at a later age
- changes in the tissue of the breast or armpit including lumps and swelling
- family history of breast cancer
- redness, scaliness, or thickening of the nipple or breast skin
- menstruation before the age of 12
- nipple discharge
- have been treated for other types of cancer
- skin redness or puckering in the breast
- nipple retraction (turning inward)

Mammograms

- Types of Breast Cancer Screenings
- need one every one to two years decided by your doctor
- physical exams by a health professional
- all women after age 40
- monthly self-breast exam
- an x-ray of the breast that is a little uncomfortable
- clinical breast exam by a health professional such as a doctor, nurse practitioner, or physician assistant

Going the Next Step – A Challenge Activity

Tell the students that they are going to examine a graph that shows information about the number of women who have had breast cancer in different cultures.

Ask the students if they know what culture means? Explain that culture is basically our whole way of life. It is the beliefs and behaviors of a people that show in their buildings, language, diet, sports, government, education, entertainment, social activities, and more.

Explain that the students will need to think about the culture of a group of people in order to make some statements about this graph.

See Handout #3: Breast Cancer Rates by Race and Ethnicity

Place the students into small groups to complete the assignments on the handout.

Explain that “incidence rate” means how many women out of a given number get the disease each year. The graph shows how many women out of 100,000 got breast cancer each year during the years 1999–2007. The year 2007 is the most recent year for which numbers have been reported in this graph. The breast cancer incidence rate is grouped by race and ethnicity.

Point out the names of the various groups of people, if the students were not able to read that on their own: White, Black, Hispanic, Asian/Pacific Islander, and American Indian/Alaska Native.

Tell students to complete the assignments; reading the information properly, seeing relationships, and making statements about the findings on the graph. Discuss as a class.

Additional information:

Breast Cancer Research Foundation® www.bcrfcure.org.

American Cancer Society <http://www.cancer.org/index>

PubMed Health <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001911/>

Susan G. Komen <http://ww5.komen.org/>

Lesson 5.3: Colon Cancer – We Have to Talk About It

Pre-GED Skills

- LARS 14 Locate, organize and interpret written information for a variety of purposes, including classroom research, decision making, performing a school or real-world task, and to develop personal preferences in reading.
- LAW 7 Select and use appropriate formats for writing, including persuasive and expository formats to develop cover letters, résumés, and communicate consumer concerns.

Introducing the Lesson

Tell the students the topic will be colon cancer and colorectal cancer (colon and rectum). Explain that when discussing colon cancer it means that the topic will focus on fecal waste and issues related to the digestive system and elimination. Find out what the students know about colon cancer and discuss their feelings towards talking about the colon. (Many people cannot bring themselves to go to the doctor about issues with their elimination system because of such personal emotional feelings.)

Tell the class that today they are going to put aside their personal issues for awhile to become aware of colon cancer, get informed, and learn how important it is to live a healthy life to prevent future health problems, because this type of cancer has a high cure rate if detected early. Read the story and answer the questions.

Presentation of Targeted Pre-GED Skills

Tell the students that in our digestive system, the small and large intestine play a major role in digesting our food and removing waste material from our body. If possible, project a diagram of the digestive system and go through the parts. http://www.genesishealth.com/services/bariatric-surgery/digestive_diagram/ or <http://www.annecollins.com/images/digestion.jpg> or <http://www.contmediausa.com/shop/app/products/Human3D/Images/V051.jpg>

Say, “We are not the same. Our bodies are not identical. We do not feel the same. Everyone knows what is right and normal for his or her own body. We must be on the lookout for signs that are telling us that something is wrong with our colon and waste elimination. We have to talk about it, because screenings, a healthy lifestyle, and early detection can save our lives.”

Before passing out the handout, explain that this handout is for their own personal use. It will not be shared. Pass out Handout #1: Colon Cancer – We Have to Talk About It, and explain that there are known risk factors and symptoms associated with colon cancer. A knowledge of these risks and symptoms and then taking proper action can not only help with early detection, but may help to prevent cancer. Tell students to read through the risk factors and symptom. Explain that if they checked any of the items that they should let their family doctor or gastroenterologist know to see if they need to make an appointment for a colon check up.

If the Internet is available, have students research additional information about colon cancer or colorectal cancer (cancer of the colon and rectum). Access to the internet is going to provide them with current information and plenty of visuals in the form of diagrams, images, and videos which will take students from a viewpoint of “this is not my favorite subject to discuss” to understanding how important noticing changes to all of our bodily functions is and realizing how important healthy lifestyle practices are.

Encourage students to write notes and make sure they have a specific, accurate list of risk factors and screenings and identify what they should be doing for screenings based on their personal history.

Discuss the screening the students found associated with colon cancer:

Fecal blood occult test or stool blood test

Colonoscopy

Sigmoidoscopy

Barium enema X-ray

Also discuss the different treatments that are available depending on the stage of the cancer and the extent to which it has spread. Make sure the students document where they have found the information.

Specifically, direct students to Dr. Oz's encounter with surprising results following a colonoscopy, and to Katie Couric's campaign against colon cancer. Tell students to search for: Dr. Oz Cancer Scare and Katie Couric Colonoscopy.

Have students read the information about a good diet for best health, especially for colon health on Handout #2: Say High Fiber (High Five) to Diet! Goodbye to Fats! Suggest that students work in pairs to share information and make searching more efficient.

See if students can pick up on the idea that "a healthy diet is a healthy diet" and therefore it is good for us no matter what health problem we are targeting. Add that, of course, there may be specific vitamins and other components in a diet for colon health that we can research and that a doctor may prescribe.

Going the Next Step – A Challenge Activity

A Little Research, a Lot of Sharing

Say that we have been using the term colon cancer when it is often referred to as colorectal cancer. Ask why? Have students find a diagram of the digestive system, or the intestines in particular and locate the colon and the rectum and find out what each area does for the body.

http://www.genesishealth.com/services/bariatric-surgery/digestive_diagram/ or

http://www.lesontutor.com/jm_digestive.html - a quiz

Have students think about the fact that they are not a celebrity like Dr. Oz* or Katie Couric* who can influence the public to get colonoscopies and to learn about colon health. So have students think about how they could actually do something proactive to influence more people than just their family and friends to learn about the importance of colon health.

Using provocative questions, and sentences, write a persuasive informative bulletin for a newspaper, magazine, or newsletter to publish during March which is National Colorectal Cancer Awareness Month.

Think about how you were affected by this lesson.

Perhaps a list of questions people should be faced with about this health issue would get them to think and act. Perhaps a personal revelation you could share will affect people.

Challenge: Make your writing relatively short, to the point, and powerful.

*Search for Additional information on the Internet:

Dr. Oz Cancer Scare and Katie Couric Colonoscopy – there are numerous articles on these two celebrities highlighting their awareness of colon cancer.

Lesson 5.4: Skin Cancer – Prevention, Prevention, Prevention

Pre-GED Skills

- LARS 1 Determine the main idea and identify relevant details, facts, and patterns of organization in fiction, non-fiction, poetry, workplace, and community documents.
- LARS 14 Locate, organize and interpret written information for a variety of purposes, including classroom research, decision making, performing a school or real-world task, and to develop personal preferences in reading.

Introducing the Lesson

Standing in front of the class, say in a formal fashion, “You must stand naked in front of a full length mirror.” Wait for some reaction. Let it pass.

Then, without waiting for answers or discussion say, “Did I get your attention?” Ask why. See if they think it sounded like a silly or weird statement.

Then ask the students to think about how they feel when you tell them to regularly stand naked in front of a full length mirror and examine their bodies top to bottom, side to side, front to back, in every crease, between each finger and toe, around the outside of their ears, and all through their hair.

Ask if you got their attention this time too? (Wait for reaction.)

Ask if that also sounded silly or a little weird? (Reaction may be ‘yes’ or ‘no’.)

Ask students to tell if they can figure out why they should do what you are asking them to do - even if they think it is silly or weird?”

If answers are not forthcoming that this is a self examination for skin cancer, tell them. Ask the class if they know why they should check their skin, all over their bodies regularly. (By regularly checking yourself, you become aware of what is normal for you and you will notice changes that could be signaling you to see a dermatologist.)

Tell the students that they are not qualified to determine what lumps, bumps, and marks on their bodies are skin cancer and what are not skin cancer. Make sure to stress to the students, that if they see changes or something new appears on their skin, they should see a dermatologist. Say that some skin cancers can be deadly. Tell students that they do not want to take a chance on life by not being informed and responsible for your health. Read the scenario and discuss the questions.

Presentation of Targeted Pre-GED Skills

Ask if students can identify how to detect skin cancer and what are the 3 types of skin cancers. List what they say on the board or chart. Pass out Handout #1: Skin Cancer Is... for the students to learn more about them. Discuss the information and compare it to the information that had been written on the board. Be open to students who wish to share more information or experiences about skin cancer.

Pass out Handout #2: Cancer Risk. Have students read this press release from the World Health Organization for students to help them see how dangerous tanning salons, sunbeds, and sunlamps (and the sun) can be, since the practice of getting a tan is fashionable to many (young) people in society today. Have students complete the activity and when they have finished, discuss as a group.

Since prevention is the best practice to be safe from skin cancer Handout #3: Prevention – Sun Savvy Survey will help students see what the risk factors are in general and specifically for them. Distribute the handout for the students to work through a series of questions and develop a plan for becoming more responsible for preventing skin cancer in their lives. When they are finished, discuss as a group.

Going the Next Step – A Challenge Activity

Be a “Mythbuster”

There are several myths people have about the sun’s affect on us. Here are some. List these myths on the board or chart paper.

Myth #1: Tanning is OK.

Myth #2: Tanning beds are safer than the sun.

Myth #3: Darker skinned people don’t get skin cancer.

Myth #4: Clouds block UV radiation.

Ask students to do some research to find out what the truth of the matter is about these myths. Tell them to be prepared to share their findings with the class. See if they know of any other myths and then find out the truth.

Some useful sources of information about skin cancer are:

American Cancer Society www.cancer.org

American Academy of Dermatology www.aad.org

Centers for Disease Control www.cdc.gov/

Cancer Quest www.cancerquest.org

Myth #1: Tanning is OK. **FALSE**

Tanning provides excessive exposure to harmful UV radiation, which can cause skin cancer.

The tanned color on the skin’s surface is actually a response to possible DNA damage and is the body’s way of trying to shield the skin from additional harmful ultraviolet (UV) rays. Even though the color may fade in just a few days, the damage remains and it accumulates with every UV exposure throughout your life. A tan is actually the result of skin injury.

Myth # 2: Tanning beds are safer than the sun. **FALSE**

Tanning salon exposure causes DNA alterations. Experts have now found that all types of ultraviolet radiation are carcinogenic. According to the American Cancer Society, individuals who tan indoors before the age of 30 increase their risk for melanoma by 75%.

Myth # 3: Darker skinned people don’t get skin cancer. **FALSE**

Although the pigment in darker skinned people filters more UV radiation than lighter skinned people, dark-skinned people do get skin cancer. Because of this false perception most cases aren’t diagnosed until they are in more advanced—and difficult to treat—stages.

Myth #4: Clouds block UV radiation. **FALSE**

Clouds do block some UV rays, but some rays still get through and can cause damage to the eyes and skin. Light cloud cover can still let up to 90% of UV radiation through.

Lesson 6.1: Respiratory Problems: I Can't Breathe

Pre-GED Skills

- LARS # 1 Determine the main idea and identify relevant details, facts, and patterns of organization in fiction, non-fiction, poetry, workplace, and community documents.
- LARS # 10 Ask questions and make comments and observations that reflect understanding and application of content, processes, and experiences.
- LA #1 Organize information before writing, using prewriting strategies such as brainstorming and graphic organizers, according to the type and purpose of writing.

Introducing the Lesson

Ask students if they think having a cast on their leg and using crutches would make it difficult for them to get around. Have them name some places that could be real challenging with a cast and crutches – stairs, taking a bath, etc. Ask if they know of anyone who has to carry an oxygen tank with them. Ask what places would be exceptionally challenging to bring an oxygen tank - on an airplane, bus, etc. Ask why they think someone would have to carry an oxygen tank.

Have students read the scenario and then discuss the questions.

Presentation of Targeted Pre-GED Skills

Ask the question, “What do you know about COPD?”

Have a KWL chart posted on the board and give the Handout #1 KWL to each student. Tell the students that together they are going to assess how much information they already know.

Give the students a few minutes to list what they know about COPD. Suggest to them that they may have knowledge from family, friends, reading material in doctors’ offices, television, or personal experience. Then have students share aloud what they know, while you list the information in the larger KWL chart.

Next, write what students want to know in the middle column of the chart and have students write on their personal copies at the same time. Make sure students keep this chart handy in order to add to the third column, “What I Learned”, as the lesson progresses and/or at the end.

Pass out the Information Sheet # 1 to each student. Let students take turns reading through the information. If needed, draw a diagram on the board of the trachea and lungs. Consider the level of comprehension and attention span of your students to pace the speed and amount of discussion time spent.

Ask the following general discussion questions:

Is COPD preventable?

What are there warning signs of the disease?

Is it contagious?

Is it fatal?

How might you remember what COPD means? What mental tricks would help you know what the letters represent?

What emergencies might you have to deal with if you have, or someone close to you has COPD?

Instruct students to develop a vocabulary list from this information and have students record the list on the back of their KWL handout. Then return to the KWL chart, third column, “What I Learned”, and instruct students to write in this column. Allow sharing aloud time of students’ findings. Add some of these to the larger, posted chart.

Remind the students of the vocabulary referred to in the introductory scenario and the reading. Pass out the Handout #2 COPD Vocabulary. Use the vocabulary handout to help students acquire a larger personal vocabulary.

Answers:

1. Chronic 2. Obstructive 3. Pulmonary 4. Respiration 5. Pulmonologist 6. Incurable 7. Oxygen 8. Deteriorate 9. Emphysema 10. Prescription

Going the Next Step – A Challenge Activity

Have students work in pairs to take notes about COPD by reading the information sheet again. If computers are available students may read more information by doing a search for COPD on the Internet. Remind students to refer to their KWL chart notes for information as well.

Present an outline format of: main idea, subtopics and important points. Explain that they should take notes as they read. Have students copy this format on a sheet of paper and fill in the appropriate information.

Explain the outline format for notes, the use of Roman numerals, and perhaps, if using the computer, the use of MS Word processing format feature. Explain to students that writing in an outline for note taking may not require complete sentences.

Lesson 6.2: Chronic Bronchitis - Coughing Too Much

Pre-GED Skills

- SS 11 Interpret scientific concepts through the application of comprehension skills and visual processing skills to environmental science selections.
- LAW 6 Apply critical thinking and problem solving skills to analyze and respond to written work, including history, government, and science documents.
- SS 3 Interpret scientific concepts through the application of comprehension skills and visual processing skills to physical science selections.

Introducing the Lesson

Find out how many students have had a cold with a cough. Ask which ailment - a stuffy nose, watery eyes, or coughing was harder to control with over the counter medication. Inquire as to how long it took for the stuffy nose to go away compared to the cough. (Usually the cough lasts much longer than the stuffy nose.) Take a poll to find out if everyone thinks a cough is irritating. Now discuss their reactions and find out how they would feel if they had a cough that did not go away. Read the scenario and discuss the questions.

Presentation of Targeted Pre-GED Skills

Tell the class that from the scenario we read we know that bronchitis is a kind of respiratory problem. In the story, was it acute (short term) or chronic (long term) bronchitis? Did you know that if you let bronchitis go on (become a chronic situation) without getting medical help, it could become pneumonia or COPD (Chronic Obstructive Pulmonary Disease)?

Our respiratory system takes in air so we can breathe. Why is clean air so important – for us, the environment, vegetation, bodies of water, animals, etc.? How does air pollution affect us, and other parts of our environment such as trees, plants, crops, animals, and water?

If a computer lab or LCD projection facility is available, set up a presentation from the following government website, Environment Protection Act:

http://www.epa.gov/acidrain/education/site_students/acid_anim.html. This is an excellent, clear and simple, animated slide presentation of how the air can become polluted with acid rain. It is possible to forward the slides at your own speed, so discussion can take place as needed. Elicit from students and list new information that the students learned from the presentation.

Tell the class that they are going to experience what it is like to have a respiratory problem like bronchitis.

Materials needed: regular plastic drinking straws and plastic coffee stir-stick-straws, (one of each for every student).

Give each student a regular straw. Before continuing, advise any student who has asthma or any other respiratory illness to NOT participate in this experience because it may trigger an attack. Ask the class to breathe through the straw in their mouths for 30 seconds, and say you will time them. They may choose to hold their noses. Make sure students understand that they may stop at any time if they feel dizzy, have shortness of breath, or feel scared.

Record the students' comments about their thoughts, feelings and effects on a dry erase board, chalkboard, or chart paper.

Repeat this exercise, with the same cautions, using the thinner coffee stir-stick-straws.

Record the students' comments about their thoughts, feelings and effects on a dry erase board, chalkboard, or chart paper.

Compare the two lists. Point out the comments which represent what it would feel like to have a respiratory disease. Explain that breathing through the regular straw represents initial stages of respiratory problems (acute); breathing through the coffee stir-stick-straws represents more severe problems (chronic).

Question the students about what they and others do that adds to the problem of poor air quality. Some examples are: fertilizing lawn, spraying insecticide, mowing the lawn, burning trash and yard waste, using sprays from health and beauty products, and cleaners or using cleaning products, soaps and detergents that have phosphates, etc.

Then have students determine ways to perform everyday activities with awareness of protecting our environment and air quality. Suggestions may include reading the labels on products we use to eliminate incorrect usage and to eliminate using specific harmful components and actually not using or doing some things at all.

Going the Next Step – A Challenge Activity

Pre-GED Skills:

Have students think about the question, “How do bronchitis and other respiratory illnesses affect the economy?” The following statements may be simple discussion starters to round out more complete answers to the question. When people are sick, and cannot go to work, they suffer loss of income. There are costs for chronic care. Industry loses productivity. Tourism decreases in areas reputed to have polluted air. Students will then write a report of their findings, listing the references they found.

If computers are available, websites abound for researching the economic effects of illness on society. At the same time students will gain more information about bronchitis and air quality and government involvement in helping to improve the environment.

Some good sites to go to are:

www.healthgoods.com

www.epa.gov

<http://www.airnow.gov/>

Unit Six Lesson Three: Asthma – The Right to Breathe Right

Pre-GED Skills

- SS6 Understand, interpret, and explain graphic models and stimuli such as diagrams, photographs, drawings, maps, graphs, charts, and tables.
- LA10 Write critical responses to logical, ethical, and emotional appeals in written and oral communication.

Introducing the Lesson

Discuss how Asthma is one of the most chronic and long term health conditions in America. Explain that it is an autoimmune disease where certain “triggers” cause the immune system to send an alarm to the lungs, which then overreacts by shutting them down and making it difficult for the person with asthma to breathe. Inquire why someone with asthma would need to be alerted to how much pollution would be in the air. Explain there is a calculation, known as the Air Quality Index (AQI) that reports the air quality. Continue to explain that the quality of our air affects not only people with asthma, but people with healthy lungs as well.

Read the scenario and discuss the questions.

Presentation of Targeted Pre-GED Skills

Share this table Handout #1 Air Quality Index (AQI) with the class. Mention that it is available on the internet. Explain to the students that many weather reports often refer to the air quality of our local communities and sometimes general areas of concerns in the United States. It is important to pay attention to these reports.

Review the chart cell by cell:

Tell students this table is from a link on the website Air Now, <http://www.airnow.gov/>, which explains Air Quality Index (AQI). The AQI uses colors to represent the levels of health concern to make the chart easier to read. Explain since there are millions of people in the United States who have asthma, the government “pays attention” to air quality and reports it to the public.

Ask and discuss the following questions:

- What makes pollution in our air? (burning fuels which in turn causes acid rain)
- What creates this situation? (e.g. transportation, factories, power plants, wild fires)
- What can each of us do to be an “environmental steward” to decrease air pollution?

Show Handout #2: A Letter – Format.

Discuss why everyone in a community is responsible for the quality of the air. Discuss the role of a local community such as the local government operations, the school district/school board, or the workplace.

Divide the students into groups of 3, unless there are some students who are confident to work alone, to write a letter to their local community government, or school district/school board, or their place of employment explaining how concerned they are about the AQI in the US in general and specifically, in their own community. Addresses may be found on the internet or in phone books. In the letter they should ask what the organization is doing to insure good air quality and to improve the AQI.

Take time to explain the parts and purpose of the letter with appropriate spacing, indentations, and punctuation. Students may suggest some sentence starters for the body.

Going the Next Step – A Challenge Activity

Talk about how living with asthma is a long-term disease that requires long-term care. Discuss that a successful asthma treatment requires a person to take an active role in their care and follow an asthma action plan. Since there is no cure for asthma; asthmatics need to learn how to take control of their situation in order to live a successful life.

To make an action plan one has to use problem solving skills. Look at the following problem solving steps and make an action plan for an asthmatic.

List the following problem-solving steps:

Step 1: What is the problem?

Step 2: List the alternative ways to deal with the problem.

Step 3: Describe the consequences for each alternative.

Step 4: Make a decision on the action you want to take. Act on that decision.

Step 5: Evaluate your decision. Modify your plan if necessary.

Have the students work through these steps once regarding asthma and the second time considering another problem. This can be done orally or in writing, together as a class, in small groups, or individually.

Additional resources:

Living with Asthma:

http://www.nlm.nih.gov/health/dci/Diseases/Asthma/Asthma_LivingWith.html

Asthma Action Plan:

http://www.nlm.nih.gov/health/public/lung/asthma/asthma_actplan.htm

Lesson 6.4 Pneumonia; Leo's Lost Thirty Days

Pre-GED Skills

- LARS10 Ask questions and make comments and observations that reflect understanding and application of content, processes, and experiences.
- SS 10 Identify the adequacy and appropriateness of information to substantiate a generalization.
- LARS 8 Check the validity of information, differentiate fact from opinion, and recognize how personal values influence conclusions.

Introducing the Lesson

Ask the students what they think the following saying means: “The more you know, the more you know”. After they have had a chance to respond, explain it simply means how knowledge builds on itself or one thing leads to another. Explain that we get smarter and smarter every day we learn something. Ask students what they know about pneumonia. Ask if they knew there were different kinds of pneumonia? Explain that pneumonia could be caused by a variety of viruses, bacteria and sometimes a fungal infection. Share with the students that we all need to be aware of how we can reduce our risk of getting pneumonia and recognize the symptoms in order to know when we need to go to the doctor.

Read the story about Leo's Lost Thirty Days and discuss the questions.

Presentation of Targeted Pre-GED Skills

Explain to the students that this activity is going to mix them up and match them up. Explain that each student will have a part of a sentence about pneumonia. They will have to search for another student who has the correct match to the rest of the sentence. See Handout #1 Mix 'n' Match.

Use the handout to cut up the sentences. Save one copy to use as an “answer sheet”. Encourage the students to read and engage in discussion with each other to sort out the sentence structure and content of their sentence parts to match correctly rather than telling them the true match. After all the students feel confident they have made the correct matches, have the sentences read aloud one at a time. Allow for some discussion. After all the matches have been made, ask the class to sort the sentences into categories about pneumonia.

Categories:

What is pneumonia? Symptoms Causes Prevention

Tell the class that a debate is basically a kind of speaking contest that makes the listeners or audience believe opinions. Ask the students if they have ever listened to a debate in person or on TV. Have the students share their experience. Make sure the students are able to understand the purpose and procedure of a debate by covering the following questions.

Why do people have debates? On what occasions would there be a debate?

e.g. in politics – during election time, in education – about changes in students' schools, in the community – when the local government is instituting a by-law, etc.

Who listens to debates? Who would be in the audience?

How does a debate proceed?

1. The topic or issue is presented.

2. There are 2 (or more) sides to each issue and the people in the debate take a side.
3. There are moderators who lead the debate by presenting each issue and calling on each side, one person at a time.
4. Each side or team speaks about the issue with information that makes the audience believe what they say is the best information, the truth.
5. Sometimes there are points given to each side to see which team was the best at presenting the information as the truth and winning over the audience to their way of thinking. This is persuasive speaking!

Divide the class into 3 groups – Team 1, Team 2, and Moderators (2 or 3 students). Explain their roles. Review the procedure of the debate. Give the moderators their portion of Handout # 2 Debate of Truth. Give Team 1 and Team 2 their portions respectively. Give the students time to get together and read over their parts as a group. To the whole class, go over the responsibility of the moderators. Tell each team that they have a viewpoint about each issue already written for them on their paper. They need to help each other think of what they can say, one at a time, when called on, to add more comments about this point. Give the class time to do this together while you circulate to each group to help them.

After the debate, debrief with the students by discussing the questions:

1. Who was the most persuasive speaker? Why?
2. What was the hardest part of this debate for you? Why?
3. What did you learn about pneumonia from our debate?
4. Do you think you might go to a debate in your community, at your child's school or during election time now that you have been in a debate yourself?

Going the Next Step – A Challenge Activity

Plan to have some samples of community service brochures one can find in healthcare centers and/or doctors' offices to show students before asking the following question, "Have you been at a hospital or in a doctor's office and noticed informational brochures?"

Ask: What are some other terms used to describe these? (e.g. flyers, handouts

What is their purpose? - important information about diseases, disorders, and health situations)

Explain to students that they are going to make their own information brochure about pneumonia. Materials needed: 8 ½" x 11" sheet of paper, folded into thirds and pen or pencil and/ or colored markers

Help students determine what information should be on the brochure and how that information can be divided into the 6 panels of the folded paper. Encourage students to use diagrams and small pictures, if they are so inclined. Here is where access to the internet would help students with more information about pneumonia and an opportunity to see the visual aspects of websites.

Show this illustration and an actual piece of paper folded in thirds to clarify the presentation of information on a brochure. The information mentioned here is only for sample purposes. Students should be free to develop their own style.

Outside of Brochure		
contact information of help and resources for pneumonia	Map	This is the front cover
Inside of Brochure		
Personal story of someone's situation with pneumonia	List of symptoms and what to do if you think you have pneumonia	List of causes and how to decrease the risk of getting pneumonia

Lesson 7.1: Diabetes Type II - Going Forward, Rosa's Story

Pre-GED Skills

- LARS 8: Check the validity of information, differentiate fact from opinion, and recognize how personal values influence conclusions.
- LARS1: Determine the main idea and identify relevant details, facts, and patterns of organization in fiction, non-fiction, poetry, workplace, and community documents.
- LARS5: Synthesize and separate collected information into useful components using a variety of techniques, such as source cards, note cards, spreadsheets, and outlines.

Introducing the Lesson

Discuss how our bodies change over the years – we sometimes are acutely aware of the changes, like a bleeding cut, and we take care of it immediately, but sometimes we think the symptoms will go away and we just ignore them. Inquire why we think that way. Are we frightened that we have some terrible illness? Is it our fear of doctors? Have students give some examples like an itch, a scratch, sore muscle, or a headache. Ask if there has been something that they ignored that didn't go away. Elicit examples and the consequences of not acknowledging something different (a symptom) within our bodies.

Read the scenario and discuss Rosa's situation. Discuss the questions. Below are listed are some additional warning signs students should know if they do not come up with these in class:

Some Additional Diabetes Warning Signs Include:

Extreme and frequent thirst	Irritability
Frequent urination	Bruises & cuts that take a long time to heal
Excessive hunger	Risk Factors for Young People
Low energy	Family history
Light headedness	Being over-weight
Tingling or numbness in the extremities	High blood pressure
Unexplained weight loss	Low HDL cholesterol
Blurred vision	High triglycerides
Dry, itchy skin	

Presentation of Targeted Pre-GED Skills

Pre-GED Skill – Differentiate fact from opinion.

Discuss briefly the difference between a myth and a fact. Explain that a myth usually embodies a belief regarding some fact or phenomenon and that over time this belief version becomes the accepted standard and is then passed on as being the truth. Cut out the ten numbered statements. Cut out the ten numbered myths with the fact and put these in an envelope with the number on the outside of the envelope and display on a desk. Explain to the class you are passing out ten statements about diabetes to ten students. Each student with a statement will read the statement and the class will discuss if they think the statement is a fact. After having the discussion, ask another student to find the envelope on the desk with the corresponding number and read again the myth along with the fact. Make sure all of the misconceptions are covered. Continue until all 10 myths have been discussed. Explain that the American Diabetes Association lists these myths and facts on their website because there are so many misconceptions about diabetes.

Pre-GED Skill – Interpret and demonstrate comprehension of written material.

Have students read Information Sheet #1 about Pre-diabetes. Discuss as a class and include in the discussion the following questions:

1. Name four warning signs of diabetes.
2. What can you do everyday to help prevent the onset of Type 2 diabetes?
3. Why is it important to see your doctor if you have some of the warning signs for pre-diabetes?
4. If you need more information about this topic where would you look?

Going the Next Step – A Challenge Activity

- Read How a “Diabetes Diet” Protects Your Health. Using the information in the article: Plan a menu – breakfast, lunch, dinner, and snack for a Type 2 diabetic with normal weight. For a sample menu go to: <http://diabetes.webmd.com/guide/sample-meal-plan>
- Suggest that students take this on-line test to see if they are at-risk for diabetes. http://www.diabetes.org/diabetes-basics/prevention/diabetes-risk-test/?utm_source=WWW&utm_medium=DropDownDB&utm_content=RiskTest&

Lesson 7.2: Heart Attack – 911

Pre-GED Skills

- LAW 7 Select and use appropriate formats for writing, including persuasive and expository formats to develop cover letters, résumés, and communicate consumer concerns.
- LAW 11 Select appropriate language and word choice in written selections according to intended audience, purpose, and occasion.
- LAW 4 Produce a final document that has been edited and revised to include correct mechanics, word usage, effective sentences, and appropriate text divisions.

Introducing the Lesson

Write the word “ATTACK” on the board. Ask the students what this word usually means to us in everyday circumstances. If ideas are not forthcoming suggest that they think about what goes on in the news about people being assaulted, or how we may think of really bad storms effecting out area. (Some responses may be: sudden, aggressive, without warning, immediate, emergency, no time to react/think/wait, vicious, or brutal.) Once students have run out of associations from their point of view or from the media, then ask, did you associate the words “sneaky” or “silent” with attack? Talk about this until the class arrives at a consensus that normally these words do not go with “attack”.

Tell the students that sometimes the signs or symptoms of having a heart attack can be so subtle that they can sneak up on you. Explain that you might not realize what is really happening. Make clear that it could be deadly! Ask why. Read the scenario and discuss the questions.

Presentation of Targeted Pre-GED Skills

Have students share any experiences about heart attacks. If some students bring up heart disease, accept what they share, see if anything about their story can relate to the topic of heart attack, focus on that, and then move on. This is activating the students’ prior knowledge. Pass out Handout #1: Our Heart. Discuss how the heart works and then instruct students to take notes in order to answer the questions at the bottom of their handout. You can discuss the following questions and answers or you can have students do research to find out the answers and then discuss as a class.

1. Ask what is a heart attack? Explain that a heart attack, or also known as a myocardial infarction, occurs if the flow of oxygen-rich blood to a section of heart muscle suddenly becomes blocked. If blood flow isn’t restored quickly, the section of heart muscle begins to die.
2. Are there different kinds of heart attacks? Yes, heart attacks most often occur as a result of coronary heart disease (CHD), also called coronary artery disease. CHD is a condition in which a waxy substance called plaque builds up inside the coronary arteries. These arteries supply oxygen-rich blood to your heart. A less common cause of heart attack is a severe spasm (tightening) of a coronary artery. The spasm cuts off the flow of blood through the artery. Spasms can occur in coronary arteries that aren’t affected by atherosclerosis.
3. How do you know when you are having a heart attack? Lead the class into discussing what students know to be warning signs that someone may be experiencing a heart attack. List them on the board. Explain that acting fast at the first sign of heart attack symptoms can save a life and limit damage to the heart. Treatment works best when it’s given right after symptoms occur.

Heart attack symptoms include:

- Chest pain or discomfort. This involves uncomfortable pressure, squeezing, fullness, or pain in the

center or left side of the chest that can be mild or strong. This discomfort or pain often lasts more than a few minutes or goes away and comes back.

- Upper body discomfort in one or both arms, the back, neck, jaw, or upper part of the stomach.
- Shortness of breath, which may occur with or before chest discomfort.
- Nausea (feeling sick to your stomach), vomiting, light-headedness or sudden dizziness, or breaking out in a cold sweat.

Additional symptoms could be:

- Numbness or weakness in the face, arm or leg, especially on one side of the body.
 - Confusion, trouble speaking or understanding
 - Trouble seeing in either one or both eyes
 - Trouble walking, dizziness, severe headache
 - Fullness, indigestion (may feel like heartburn), or a choking feeling
 - Extreme weakness or anxiety
 - Rapid or irregular heartbeats
4. When should 911 be called? Heart attack (myocardial infarction) remains the leading killer of both men and women in the United States. More than 400,000 Americans die from heart attacks each year. Getting emergency medical help immediately can dramatically increase your chances of survival and recovery. Waiting can result in dangerous delays. Only skilled medical professionals can determine if someone is having a heart attack. Your responsibility is to recognize the warning signs and act quickly.

Going the Next Step – A Challenge Activity

See Handout #3: I Love Exercising My Heart / Thanks to Others Who Love My Heart

Have students use materials available and possibly the internet to research exercise programs for heart attack survivors or find out the kinds of healthcare providers there are that deal with the heart.

Handout #1: I Love My Heart Forever (BFF)

What are the signs that you could be having a heart attack? When should you go to a doctor to get your symptoms checked? When should you call 911?

Design a small poster that could be on your refrigerator, beside your telephone, larger to be in a doctor's office, or perhaps small enough for you to keep in your wallet. You may use the back of this paper for your rough plans, but get a fresh blank paper for your good copy.

Make sure you check your spelling and have capital letters used properly. Be consistent in your writing. If you use sentences, use all sentences; if you use point form, use all point form. You may use color

Lesson 7.3: Heart Disease - Are You at Risk?

Pre-GED Skills

- LAW 6 Apply critical thinking and problem solving skills to analyze and respond to written work, including history, government, and science documents.
- LAW 10 Write critical responses to logical, ethical, and emotional appeals in written and oral communication.
- LARS 11 Recognize language that shapes reactions, perceptions, and beliefs

Introducing the Lesson

Are You at Risk?

Ask the students to think about how healthy they think they are. Have them use comparatives, such as, as healthy as an athlete, as I ever was, as the doctor says I can be, as the rest of my family, healthier than ..., not as healthy ..., etc.

Then direct their attention to their hearts. Ask them how healthy do they think their hearts are and how do they know. Read the scenario and discuss the questions.

Presentation of Targeted Pre-GED Skills

Discuss with students that we can control some factors in our way of living that encourage good health. Go on to say that we also have some uncontrollable factors that affect our good health, our genetics. State that because we cannot alter our family history, we are going to focus on what we can do to promote good health, thus decreasing our risks for heart disease.

Pass out Handout #1: Are You at Risk? Explain that there are risk factors that we can sometimes control to help prevent heart disease. Ask students to think that if they don't do something now, what their health will be in twenty years. Ask if they think they will have good health. Now go over the list on the handout. Go through each of the risk factors and then discuss preventable measures that they can control to help decrease these factors.

Make sure the following are discussed and that students add to the list.

- aim for a healthy weight
- strive to develop a healthy diet
- eat less salt and sodium
- exercise daily – take the stairs, walk further to your car in the lot, go dancing
- stop smoking, don't start
- limit alcohol use
- get blood pressure checked once a year, understand your numbers
- get blood sugar levels checked once a year, understand your numbers

Going the Next Step – A Challenge Activity

Pass out Handout #3: Tough Choices – Persuasive Thinking

Divide students into small groups. Give time for students to read and discuss the 2 issues about health insurance and heart transplants. Let them decide which one to debate as a group. Suggest they might want to make some brief notes to remember important points only. Then have students write a persuasive essay to

support their decision.

Lesson 7.4: Renal Disease

Pre-GED Skills

- LAR 10 Ask questions and make comments and observations that reflect understanding and application of content, processes, and experiences.
- LAR 3 Analyze text organization to understand the presentation of ideas in materials, which illustrate cause and effect, compare and contrast, and relating events in chronological order.
- LAW 4 Produce a final document that has been edited and revised to include correct mechanics, word usage, effective sentences, and appropriate text divisions.

Introducing the Lesson

Ask students what they know about kidney failure or renal disease. Make sure to cover these important facts: it is a medical condition in which the kidneys fail to adequately filter toxins and waste products from the blood. Explain there are two forms of renal failure – acute kidney injury and chronic kidney disease. Acute kidney injury usually occurs suddenly and can usually be reversed if caught early. However, chronic kidney disease develops slowly and initially there may be few symptoms.

Show a diagram of the renal system found on <http://www.stockmedicalart.com/medicalartlibrary/urinary-system-diagram.html> website. Either draw this on the board, chart paper or use a LCD projector to project the diagram. Ask students to point to where their kidneys and bladder are found inside their bodies. Read the scenario and answer the questions.

Presentation of Targeted Pre-GED Skills

Divide students into small groups. Pass out Handout #1: Symptoms, Questions and Action. Have students discuss each symptom and question, then decide as a group what their action plan would be for each. Encourage students to think of all illnesses that would have that particular symptom. Emphasize that many of the symptoms can be due to other illnesses, so it is important that when you see the doctor, you can describe the symptom or symptoms in detail which helps the doctor decide upon the best treatment plan.

After the groups have their action plans, explain that these symptoms are the most common of renal disease. Tell them depending on how advanced the kidney failure is, some other symptoms could be:

- Rapid heart rate
- Loss of appetite
- Feeling confused, anxious and restless, or sleepy/sleep problems
- Pain on one side of the back, just below the rib cage and above the waist
- Abnormally dark or light skin
- Bone pain
- Easy bruising, bleeding, or blood in the stool
- Frequent hiccups
- Low level of sexual interest and impotence
- Menstrual periods stop

By this time in the lesson students should see that it is important to recognize the symptoms of any disease and to determine when it is important to seek professional help before it is too late, as in acute kidney failure or first stage of chronic renal disease.

Divide students into pairs or small groups. Explain they will read about Renal Disease and answer the following questions. Ask these questions to the students before handing out Handout #2 Renal Disease. Encourage students to discuss the answers to the questions before reading the handout. Explain that after they read the handout, they should check to see if they were correct.

Ask the following questions;

1. What is the function of our kidneys?
2. What are some causes of renal disease? Have the students think back to the function of the kidneys and then ask, what could be wrong in our bodies that would cause kidney failure?
3. What can a person do to help prevent renal disease? Discuss some lifestyle activities that can help prevent problems with our kidneys.
4. What are some treatments for renal disease? Now help students think through ways to help make the kidneys improve their function. Ask what can be done to help the kidneys work better again?
5. Why would someone need dialysis?
6. Why would someone need a kidney transplant?

After asking and discussing the questions, pass out Handout # 2 Renal Disease. Go over the answers and check with the students to see if they changed any of their original answers.

Going the Next Step – A Challenge Activity

Ask the class to name the 4 different kinds of sentences and the correct punctuation.

1. Interrogative (?) – asks a question
2. Exclamatory (!) – expresses some kind of emotion
3. Declarative (.) – makes a statement
4. Imperative (.) - orders or commands

Divide students into small groups and explain that they are going to design the cover of a newsletter about renal disease. Let the students know that every health disease/condition has a website and a newsletter or magazine to provide information and support about symptoms, causes, prevention or treatment. Inform students that they are highlighting the topics people should know about to keep their kidneys healthy.

Inform students that they will make up the titles of related articles that will appear on the cover of their newsletter. Let them know they must write article titles to peak the interest of a reader to learn about renal disease. Explain, if they only have four titles, each title must be one of the four different kinds of sentences with the correct punctuation that was just discussed. Tell them to give the magazine a title and maybe an illustration. Suggest they might want to show a large kidney shape right in the middle of your cover, or find a clip art or a picture cut from a magazine, or add an original drawing.

Start the exercise by allowing students in their groups to write sentences on the topic of renal disease and then, changing these sentences into interrogative, exclamatory, declarative or imperative sentences to use for titles on the cover of their newsletter.

Examples:

1. What is renal disease? Does renal disease have anything to do with kidneys? Do you know what renal disease is?
2. You can die from renal disease! Stop fooling yourself! Get help!
3. I have a cousin who has renal disease. Kidney transplants are possible.
4. Find out about renal disease. Follow your doctor's orders.

Pass out Handout #3: Newsletter About Renal Disease. After students have completed their newsletter cover, let each group share their completed project.

Lesson 7.5: Arthritis – The Pain of It

Pre-GED Skills

- LA 4 Produce a final document that has been edited and revised to include correct mechanics, word usage, effective sentences, and appropriate text divisions
- LA 11 Select appropriate language and word choice in written selections according to intended audience, purpose, and occasion.
- LARS 11 Recognize language that shapes reactions, perceptions, and beliefs.

Introducing the Lesson

Ask students if they have ever had an area of their body that has become stiff and sore. Ask them to describe what they did that caused the stiffness and soreness. Ask if anyone has ever had a body part that was injured and then became swollen. Ask them to describe what it felt like. Ask how long it took for the swelling to go away and if the swelling impaired the use of that body part. Tell students that this describes how someone with arthritis would feel, but those symptoms do not go away. Arthritis symptoms may temporarily subside, but they can flare up at any time.

Inquire what students know about arthritis. List their answers on the board or chart paper. While discussing arthritis, explain that there are over 100 different types of arthritis and related conditions. Tell them that this lesson will only cover a few of the most common types of arthritis. Continue to explain that arthritis is a joint related problem that includes pain, stiffness, inflammation and damage to the joint cartilage (the tough, smooth tissue that covers the ends of the bones, enabling them to smoothly glide against each other) that results in limited movement. However, other forms of arthritis can also affect other parts of the body and cause damage to virtually any bodily organ or system, including heart, lungs, kidneys, blood vessels and skin. Read the scenario and discuss the questions.

Presentation of Targeted Pre-GED Skills

Pass out Handout # 1A: Arthritis. Tell students to listen as you read about arthritis. Tell students to fill in the blank spaces with the correct word. Read the following:

People of all ages can have arthritis, but it occurs more often in older people. There are four symptoms that are most often associated with arthritis which are: pain, stiffness, swelling and difficulty moving a joint. However, these symptoms vary among individuals. Symptoms could develop slowly, pain could be constant or could come and go, and often the pain and stiffness are more severe in the morning or after a period of inactivity. Arthritis is usually chronic, making it difficult to perform a lot of daily tasks, which can have a negative psychological impact on a person as one thinks about being always dependent.

There are different types of arthritis that can affect one or more, different joints around the body, such as rheumatoid arthritis, juvenile arthritis, fibromyalgia, psoriatic arthritis, gout, osteoporosis, Sjogren's syndrome, (two dots need to go over the "o" in sjogren) etc.. The most common arthritis is osteoarthritis.

In order to prevent arthritis, it is recommended that a person should not be overweight. It has been found that people, especially women, with excess weight have a higher frequency of osteoarthritis. Other preventative measures are to try not to abuse the joints by avoiding injury and staying away from excessive repetitive motions as found with ballet dancing, being a baseball player, a construction worker, etc. It is important to make sure diet includes adequate amounts of calcium and vitamin D to protect against bone fractures.

There are several treatments that can help with arthritis, however it depends on the precise type of arthritis, which joints are affected, the severity, and how the condition affects daily activities. An accurate diagnosis increases the chances for successful treatment. Sometimes medication for the inflammation is prescribed (Tylenol, Advil, Aleve, sleeping aids or prescription medication). The medication will not cure arthritis, but aims at reducing pain and discomfort and preventing further disability. Medications, though, can have side effects such as, stomach pain, bleeding, or thinning the blood that can cause a person to bleed excessively. Some other treatments are hot and cold compresses, as well as specific forms or exercise. Exercise is one of the best treatments for arthritis. The types of exercise that are recommended are:

- range of motion – every day gently moving each joint through all possible ways it can move, maintaining flexibility
- strengthening – lift weights in sets of 8 to 10 repetitions every other day
- endurance – walk or do something that increases the heart rate, at least three days a week.

Discuss and check their answers. Instruct the students to put away handout #1A. Pass out Handout # 1B: Arthritis. Have students answer the questions and then check themselves using their first handout.

Presentation of Targeted Pre-GED Skills if needed

Reiterate that there over a hundred different kinds of arthritis. Explain that the students will look at three of the most common kinds of arthritis to see the similarities and differences. Tell students they can use the internet, the library or other resources to complete the chart on Handout #2: Finding out More. Explain that they will be looking at Osteoarthritis, Rheumatoid Arthritis, and Fibromyalgia. Tell the students they will be looking up information about the symptoms, the joints affected, the risk factors, the diagnosis, and the treatment. Divide the class into small groups and then distribute the handout. Suggest that the students divide up the research within their groups. Report results back to the class.

An answer sheet with some information is provided for the teacher. Look for Handout #2: Finding out More – Teacher Answer Sheet

Going the Next Step – A Challenge Activity

Have students think: What can they do to make people aware of arthritis? In addition, what can they do to inform the public about arthritis, and for those who need support, what can they do to support them? Have students work in pairs or small groups and choose one of the following to make the public aware of arthritis. Share with the class.

- write a letter to a health insurance company or to a school, or to a local newspaper or to a “health business”
- write a letter to a friend or relative
- create a piece of art
- write a song and present the lyrics
- make up a public service announcement
- design a commercial for television

Some websites are:

<http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0002223/> ; <http://www.arthritis.org/exercise-intro.php> ; <http://www.medicinenet.com/arthritis/article.htm>

Handout #2: Finding Out More Teacher Answer Sheet

	Osteoarthritis	Rheumatoid Arthritis	Fibromyalgia
Symptoms: What would you notice if you had this disease?	Pain in joint(s); Swelling, tenderness, and stiffness; loss of flexibility; bony lumps and bumps; degenerative joint disease	Pain in joint(s); swelling, stiffness; loss of motion in joint; loss of strength in nearby muscles; fatigue; maybe fever	Muscle pain; chronic fatigue; stiffness; restless sleep; psychological distress
Joints Affected: What part of your body would it affect?	Usually the fingers and weigh-bearing joints – knees, feet, hips, spine	Affects the immune system; same joints on both sides of the body; starts with hands, wrists, feet, knees, ankles, shoulder, neck and jaw. Can affect tear and salivary glands, lining of lungs and heart	Affects muscles and the points where attached to bones, ligaments and tendons; creates tender points in body; pain throughout the entire body;
Risk Factors: What increases your likelihood of getting this disease?	Older than 45; overweight; having injuries from sports or physical activities	Women more than men; young to middle age; smoking; genetics	Women more than men and children; middle age; maybe associated with heredity or environment
Diagnosis: How does a doctor determine what disease you have?	Physical exam, blood tests to rule out other types of arthritis and x-rays, or other imaging techniques to look for worn down cartilage, lessening of joint space, or bone fragments	Physical exam, blood tests looking for signs of inflammatory response in your body or antibodies. X-ray to rule out osteoarthritis	Based on symptoms which are presented and on a physical examination; Often misdiagnosed; mimics or overlaps symptoms associated with other rheumatic diseases; takes years to get an accurate diagnosis of fibromyalgia
Treatment: How does a doctor treat this disease?	No cure but treatments can help lessen the pain and maintain joint movement. Treatments include medicine to lessen pain and inflammation, and surgery to replace joints or flush out the segments of bone or cartilage inside the joint.	No cure but treatment available. Most treatments are medicines which help to relieve symptoms and slow down progression. Sometimes surgery is necessary to replace joints.	No cure but can be lessened by physical therapy, exercise, and methods for reducing stress, anti-depressants, and sometimes cognitive behavioral therapy to help with coping skills.

Lesson 8.1: Oral Hygiene & Root Canal

Pre-GED Skills

- LARS 1 Determine the main idea and identify relevant details, facts, and patterns of organization in fiction, non-fiction, poetry, workplace, and community documents
- LARS 6 Identify the author's purpose and/or point of view in text and use the information to construct meaning.
- LA 11 Select appropriate language and word choice in written selections according to intended audience, purpose, and occasion.
- LARS 13 Use a variety of reference materials, such as glossaries, magazines, newspapers, journals, and computer manuals, to gather information

Introducing the Lesson

Ask the students “Who has seen a dentist this year? Why did you go to the dentist? Involve the students in a class discussion of the terms ‘dental health’ (having to do with teeth) and ‘oral health’ (referring to all parts of the mouth – teeth, gums, tongue, bones, lips, inside the mouth walls). Present the idea that when a dentist looks into a mouth, it is like looking through a window to see how the healthy the body is: “Healthy Mouth, Healthy Body”. Clarify that keeping your body healthy can lower the risk of having oral and dental health problems; however, specific steps need to be taken to maintain good oral hygiene. Not taking proper care of your mouth and teeth can lead to being unhealthy overall!

List on the board or a large paper what the students identify as best practices for keeping your teeth and mouth healthy.

Read the scenario and discuss the questions.

Presentation of Targeted Pre-GED Skills

Explain to the class that they are going to read a newspaper article that shows how good dental health matters to the economy of a state. Teacher Note: Although this article is not current, use it to point out the relation between dental healthcare and the economy, and responsibilities for our health need to be assigned

Give each student a copy of the news article Handout #1: Dental Health Costs Money But Saves Money! Divide the students into pairs or small groups of 3 to take turns reading the article which is about the importance of maintaining dental health care for all citizens in the state. Have students share their thoughts and write answers to the following questions on the back of their paper. Explain that question words are used for understanding what you have read.

Who authored this article? What is it mainly about? Where is this news happening? Why is there a problem? How can this situation be improved?

Once the students have read and discussed the article, tell them that they are going to do an exercise to help improve their understanding and retention of the information. Say, “This is an active reading technique that can be applied to any reading material you need to understand and remember, such as documents at work, contracts and business material, as well as studying for educational courses.”

Students will need: colored highlighter(s) or markers. Tell students they are going to practice following directions. Instruct students that they can help each other. Have students do one direction at a time. Confirm the correct answers together.

1. What is the main idea of the article? Highlight the sentence(s). Answer:
Michigan's move to restore dental benefits for adults on Medicaid will not only save thousands of people from needless pain and suffering, it will also save taxpayers money.
2. What does MDA represent? Underline the all words for this acronym. Answer: Michigan Dental Association
3. Underline the social assistance program we have in America that gives some citizens healthcare. Answer: Medicaid
4. Draw a colored box around the 2 opposite terms or ideas that are pointed out in the news about this problem. Answer:
5. Put a colored check on top of the number of people who depend on help from the state for dental health care. Answer: Care for potentially $\sqrt{1}$ million people depends on it.
6. Make a colored star beside the 3 ideas to help improve the dental health situation. Answer:

Other key findings focus on the need for:

- *1. Prevention services such as the Head Start Dental Home Initiative, which ensures disadvantaged children, see a dentist regularly;
- *2. Partnerships between dentists and other health professionals, including development of an oral health curriculum for physician residency programs; and
- * 3. Education efforts, including expanded use of social media, to educate the public and policy makers on the link between oral health and physical health.
7. Highlight the conclusion. Answer: Failure to treat dental disease, which is almost entirely preventable, can trigger much more severe health problems. In both human and fiscal terms, it simply makes good sense to provide dental care for disadvantaged children and adults in Michigan.

To summarize this comprehension activity, ask the students why ER costs more for dental care than dental care supplied by Medicaid? (more services involved, less time for general ER situations it was designed for, costlier premises) How does dental care provided by the state plan, through Medicaid, cost less than ER dental care? (specific dental equipment and personnel ready for needs of the patient, offer specialized care) Why is it important to know who is writing/saying this information to you, the reader? (credibility)

Say to the class that in this next exercise they are going to “get to the root of the problem”. Explain what this expression means and ask how it applies to dental health.

Tell the students that in the past when a tooth became damaged or diseased it usually had to be removed (pulled out). Now dentists can perform a ‘root canal’ to save teeth. Ask if anyone has personal experience with this. If so, let the students share their stories and have others ask questions and make comments as the discussion processes. From this discussion (perhaps while it is happening), write on the board or large paper under the headings: Root Canal – Symptoms, Causes, Process. Add necessary points to complete the information needed to understand “root canal”.

If no one has anything to share about root canals, then find a diagram or draw a picture of a tooth that shows simply what is inside and explain what can happen to a tooth that requires this procedure. The inside pulp can become damaged and cause harmful bacteria to create an abscess – infection – which is painful and can affect the bone that holds the tooth and affect your general health, to the point of being fatal – yes, infections can be fatal!. Pain, bad breath, a warm or hot area on the cheek or in the mouth, pus near a tooth are signs (symptoms) that something is wrong and you should see a dentist, to have the best chance of saving your tooth and staying healthy. The process of a root canal is: anesthetic is given, a hole is made in the crown, the pulp is removed, the root is cleaned and medicated, a temporary filling is done, and antibiotics are often prescribed. Then later, a permanent filling is made. Remind the students of the adage: “Healthy Mouth, Healthy Body”.

Divide students into groups of four. Tell them that each group is going to play the role of either: a) a parent, b) a spouse (husband or wife), or c) a friend. The whole group will be assigned only one role. Then tell the class that they must individually compose a speech talking to a) a child, b) a spouse, or c) a friend, who needs to have a root canal performed and who is afraid, and is unsure of the procedure, and who has questions about the visit to the dentist. Even though each student needs to compose a separate talk, the group of students may help each other with ideas. A suggestion for dividing the task among the four students in the group could be to have the topic spoken about in sections: symptoms, causes, process, and good oral health advice. Students need to be reminded of the kind of language and tone of voice to use depending on their “audience” – a child, a husband, a wife, or a friend. Have students present their role play.

Going the Next Step – A Challenge Activity

Pre-GED Skills:

Provide the students with as much of the following resources as possible. Internet access, library resources, and actual realia related to toothbrushes and toothbrush packaging. Ask the students to consider why brushing your teeth is a simple common way to practice good dental health. Say that it is really important to make a wise choice when buying a toothbrush. Set the students up for a comparative study. See Handout # 2: All Toothbrushes are NOT the Same. Limit research to the time available.

Before starting, ask the students to identify the two different types of a toothbrush – manual and electric, the basic parts of a toothbrush (brush head, handle), and special features (e.g., angles, grips). Say that this is how they will compare toothbrushes in their research and record their findings on the table. Doing this kind of comparing makes us wiser buyers and in a case like this (comparing toothbrushes) provides us knowledge with which should lead to better dental health. Remind students that it is recommended that a toothbrush should be replaced every three months.

Lesson 8.2: Gum Disease (Periodontal Disease)

Pre-GED Skills

- LA 8 Write text, notes, comments, and observations that demonstrate comprehension of content.
- LARS 3 Analyze the text organization to understand the presentation of ideas in materials, which illustrate cause and effect, compare and contrast, and relating events in chronological order.
- LARS 10 Ask questions and make comments and observations that reflect understanding and application of content, processes, and experiences.

Introducing the Lesson

Presentation of Targeted Pre-GED Skills

Revisit the adage “Healthy mouth, Healthy body” from Lesson 31. What does this mean to us? Our oral health (good or poor) effects the over all health of our body. What should we be on the lookout for in our mouths?

Tell the students that in this next exercise, they are going to discover how poor dental care can affect our overall health. Why is it important to keep all of our teeth? By finding the correct vocabulary to fill in the blanks, they are “closing” the sentences. This activity is called a “cloze” activity. See what you can learn about gum disease.

See Handout #1: “Clozing” in on Gum Disease. Answers:

What is gum disease?

periodontal disease gingivitis inflammation tissues bone plaque bacteria

What are the symptoms? How do you know if you have gum disease?

red, swollen, and bleeding teeth bad loose bite partial

What can I do to prevent gum disease?

twice once twice regularly professionally brush smoke

Explain that this activity will be a demonstration. You will need the following materials for the demonstration. (Note that it is not intended to actually use these products in the mouth for the demonstration.)

toothbrush

toothpaste

floss and another inter-dental cleaning device (such as a pick)

several paper cups, perhaps small 3 oz. size

water

mouthwash

Ask and discuss if students think that cleaning your mouth and teeth regularly and properly is necessary for good dental health, oral health and ultimately for good general overall health? Ask why?

Elicit from students the various steps one should take to clean the mouth and teeth properly. Point out the

related products as the students refer to them.

Ask the students if they can list all of the steps in order that should be taken to do this job. Tell them to visualize themselves in the bathroom as they would go about the process of cleaning their teeth and mouth, then list the process step by step. When they are finished, have them trade lists with another student to see if their process is complete and if the steps are in logical order.

See Handout #2: How to Clean Your Teeth

Gather the lists from the students. Have individual students take turns reading the directions of the process from another student's list, while you or another student act out the steps as if it were a script, handling the products to demonstrate the process.

By doing this, the students should see clearly if they have the steps in order and if they were able to describe the steps accurately and in a logical sequence. Be prepared for some fun and silliness as the acting out, according to the students' directions, may not be the proper way to do it!

For additional information, visit the website <http://www.ada.org/2624.aspx> for proper cleaning of teeth and gums.

Going the Next Step – A Challenge Activity

The American Dental Association (ADA) website, www.ada.org has excellent information about research, statistics, and other information that students can find to further their knowledge of dental procedures and best practices to obtain good dental health.

Visit the ADA, Oral Health Topics; Disease, Gum (Diseases, Periodontal) website: <http://www.ada.org/3063.aspx> to find out more information about periodontal disease, some factors that increase the risk of developing periodontal disease, several warning signs that can signal a problem, and frequently asked questions and answers.

Lesson 9.1: Eye Examinations

Pre-GED Skills

- LARS 8 Check the validity of information, differentiates fact from opinion, and recognize how personal values influence conclusions.
- LARS 4 Use background knowledge to make simple and complex predictions about content, purpose, and organization of a reading selection
- LA 8 Write text, notes, comments, and observations that demonstrate comprehension of content.
- LARS 14 Locate, organize and interpret written information for a variety of purposes, including classroom research, decision making, performing a school or real-world task, and to develop personal preferences in reading.

Introducing the Lesson

Tell the class that according to the American Academy of Ophthalmology (op-thal-mol-o-gy: the medical study and treatment of the eyes), more than 100,000 people experience eye injuries each year and more than half are children. While September is “Children’s Eye and Health Safety Month”; every month should be about the importance of taking care of our eyes.

Invite the students to close their eyes and to imagine a world without sight. Tell them to keep their eyes closed as they respond to the next questions. Give the students time to quietly reflect before replying.

How different would your world be? What would you miss seeing? What would you miss seeing the most? What activities would be very difficult to do, to accomplish? Which activities would be impossible?

Show the class a simple diagram of the eye. The website of the National Eye Institute (NEI - www.nei.nih.gov) and the American Optometric Association (AOA – www.aoa.org) have excellent diagrams that could be projected on a screen or drawn on the board or a large paper for the class to see. Students may draw a diagram of the eye or you may distribute copies of a drawn eye and have students label the basic parts as you go along.

Just how does the eye help us to see? Mention the parts of the eye and their functions:

lens - focuses image of object

retina - contains cells that detect light, helps us see color and shades of black and white

ciliary muscle - controls shape of lens by contracting it or relaxing it

optic nerve - transmits information to the brain

pupil - opening to the inner eye

cornea - outermost transparent layer of eye, begins focusing process. Contact lenses lay (fit) on the corneas

iris - controls the size of the pupil, is the “color of the eye”

Presentation of Targeted Pre-GED Skills

Ask the students how they know their eyes are functioning well (possible answers are: clear vision day or night, no discharge/“crusts”, no pain). Tell the class that there is more to know about our eyes in order to

keep them healthy, so they are going to take a test, an “Eye – Q” test.

See Handout #1: “Eye Q” Test for students. The sentences may be read aloud by students who feel confident to do so and some may be read by the teacher. Give students time to decide if the statement is true or false, then discuss. Or students may work through this T/F exercise independently and come together at the end to discuss it. See below the test with answers.

Eye-Q Test and Answers – Tell students to: FIRST, fold your paper up on the line below the 20 questions! The twenty statements will give you an idea of how well you understand your eyes. Write “T” for True or “F” for False on the line next to each statement. Grade yourself when you are finished.

1. T At a distance of 10” my eyes can detect an object as small as 4 thousandths (0.004) of an inch.
2. F My eyes can distinguish only four colors.
3. T My eyes can see a candle 14 miles away.
4. F Ten percent (10%) of what I know comes through my eyes.
5. F Reading in dim light can put a strain on my eyes.
6. F When viewing the TV, I should sit a distance equal to twice the width of the screen.
7. T A lack of vitamin A in my diet can cause reduced night vision.
8. T Dilation of the pupils allows my doctor to see a better view of the inside of my eyes. Dilation is accomplished with special eye drops.
9. F The best color for sunglasses is blue.
10. T Tears contain substances that slow down bacterial growth.
11. T My eyelids work much like a car’s windshield wipers.
12. F Sunglasses will allow me to look directly at the sun.
13. F Many prescriptions for eyeglasses are identical.
14. T Smoking can affect my vision.
15. F If I have 20/20 vision, I definitely do not have any eye problems.
16. F Air pollution affects only my lungs and breathing.
17. T If I am nearsighted, I see near objects more clearly than distant objects.
18. T If I am farsighted, I see distant objects more clearly than near objects.
19. T Glaucoma is a serious eye disease that can cause blindness.
20. T Regular eye examinations can help protect my eyes and my general health.

Allow some time to discuss incorrect answers and then encourage students to find out more on their own, especially if there are computers available in class to check out the website of the American Optometric Association (AOA – www.aoa.org) to learn more about the statements they did not understand.

- 19-20 - I understand my eyes very well
- 17-18 - my view of my eyes is pretty clear
- 15-16 - my concept of my eyes is a little fuzzy
- 13-14 - the way I see my eyes could use a little correcting
- 12 or less - my eyes need much more understanding

After this exercise, refer to statement #20: Regular eye examinations can help protect my eyes and my general health. This sentence states one of the best ways to keep our eyes healthy.

Question the class, “What should we do to keep our eyes healthy. Elicit their answer:

1. eat a nutritious diet (following the Food Guide Pyramid from United States Department of Agriculture – USDA – www.mypyramid.gov)
2. get regular rest and sleep
3. be aware of any changes in your body and state of health
4. get regular eye examinations

Point out to the students that these same healthy practices keep our whole body healthy as well.

Ask if students know what is involved in a typical eye examination. By asking a series of questions, get the students to respond and together make an outline of information about an eye and vision examination, you on a board or large paper and the students on their own note paper,. This is an outline format that can be used to show subordination of information.

What Happens in an Eye Examination

- A. Patient History
 1. symptoms
 2. other health problems
 - a. any medications
 - b. workplace environment
 - c. previous eye or health conditions – yourself or family
- B. Vision and Eye Tests
 1. visual acuity
 2. depth perception
 - a. eye focusing
 - b. pupils response to light
 3. color vision
 4. eye muscle movements
 - a. eye movement
 - b. eye teaming
 5. peripheral or side vision
 6. eye pressure
- C. Eye Doctors
 1. optometrist
 2. ophthalmologist
 3. optician
 4. orthoptist
 5. ocularist

Work through the following questions and comments to enable students to develop the sample format of an outline above.

We need a title when we write notes. What should we call our note? What Happens in an Eye Examination Since our note is going to have main ideas and subordinate ideas (ideas that belong to the bigger idea) this

kind of note is called an outline.

In order to understand you and any problems you may have, the doctor needs some information about you. What can we call this part of your visit to the eye doctor? Patient History

Write a list of the following words under Patient History: symptoms, other health problems, any medications, workplace environment, and previous eye or health conditions – yourself or family. Ask the students why might these topics be discussed when you visit the eye doctor? Add, in simple point form, any brief information students can give about each subordinated topic. For example, workplace environment –“polluted with sawdust particles” or “eyestrain from strong chemicals”.

What kinds of tests do you think will be conducted on your eyes to check your vision? Visual Acuity, Depth Perception, Color Vision, Eye Muscle Movements, Peripheral Or Side Vision, Pupils Response to Light. List these tests under the heading Vision and Eye Tests. As you write the tests in a subordinated list see if the students can contribute any prior knowledge of these tests to the class and add their ideas. Make sure the students understand the meaning of the test vocabulary, the test, and its purpose: i.e., why is it important to our vision and eye health. For instance, peripheral vision is necessary to be able to see vehicles beside us when we drive, alerting us to potential dangers.

(The following information is useful to explain visual acuity and its measurement.) Reading charts are often used to measure it. The measurements evaluate how clearly each eye is seeing. You are asked to read letters on distant and near reading charts. The results of visual acuity testing are written as a fraction such as 20/40. When testing distance vision, the top number in the fraction is the standard distance at which testing is done, twenty feet. Note: Have you noticed a special place marked on the floor in the room where you have participated in this test? The bottom number is the smallest letter size you were able to read. A person with 20/40 visual acuity would have to get within 20 feet of a letter that should be able to be seen clearly at 40 feet. Normal distance visual acuity is 20/20.)

We have been talking about ‘eye doctors’. Add Eye Doctors to the outline. What specific eye doctors can we visit for examinations? optometrist (eye examiner, lens prescriber, laser vision specialist), ophthalmologist (surgical care), optician (glasses and contacts), orthoptist (straighten ‘crossed eyes’), ocularist (artificial eyes)

Have the students note in an outline how ideas are shown to be sub ideas by indenting the lines to “step” inwards. Ask if students have ever seen an outline. Say that this is a way of writing notes to help you remember big, main ideas about a topic and smaller detail ideas that are related. Suggest other lettering/ numbering styles such as:

1. for A. and i., ii., iii., iv. for a., b., c., etc.

Going the Next Step – A Challenge Activity

Invite students to take the Lens Trivia Challenge at the Optima Web site. Point out that all of the answers can be found on other pages of the site and encourage students to scroll to the bottom of the page, read the table of contents, and explore the site to find the answers. <http://www.optima-hyper.com>

Lesson 9.2: Glaucoma – You Are the Expert

Pre-GED Skills

- LAW 1 Organize information before writing, using prewriting strategies such as brainstorming and graphic organizers, according to the type and purpose of writing
- LAW 8 Write text, notes, comments, and observations that demonstrate comprehension of content
- LAW 3 Use the writing process to generate, organize, connect, express, and evaluate ideas applying basic rules of sentence structure

Introducing the Lesson

Materials: paper towel or toilet tissue rolls or rolls made with 8 1/2 x 11 paper.

Ask the students if they have ever heard of glaucoma. Ask if they know why the most common type of glaucoma is referred to as the “Silent Thief”, the “Sneak Thief of Sight”. Explain that it is because this kind of glaucoma (chronic - on-going – Primary Open Angle Glaucoma - POAG) “steals” your vision without you experiencing symptoms to warn you that something is wrong. On the other hand, the acute type of glaucoma is a sudden attack of symptoms that lets you know something is wrong with your eyes and you need emergency care right away.

If glaucoma is left unattended, your vision can become “tunnel vision”. This is like looking at the world through a small tunnel. Tell the students that they will now have a chance to experience what this would be like. Hand out the paper rolls and have students look through them with one eye while covering up the other. Have students walk around the room. Tell them to imagine how life would be if this is how they saw things. Allow some time for students to overcome their initial feelings of caution so that they can really experience what tunnel vision is like. Have the students return to their seats and ask them to share what the “experience” of glaucoma was like. Ask students to read the scenario and answer the questions.

Presentation of Targeted Pre-GED Skills

Remind students that just like we take steps to protect our homes and cars from theft, we must take steps to protect our eyesight. Announce to the class, “You are going to become an “expert” in one area about glaucoma and then you are going to teach others what you know. Each one of you will be pieces of the “jigsaw puzzle” of information about glaucoma”. Teacher Note: This is a cooperative group learning strategy.

Materials needed: see Handout #1: Glaucoma Information and any other resources about glaucoma from the library, brochures, pamphlets from eye doctors’ offices, or other information found on the Internet. Note: Glaucoma Research Foundation at www.glaucoma.org – free brochures available. Students will also need note paper and writing supplies, perhaps even colored markers, etc. (to help visual learners, and others, to categorize the information that they record).

“Jigsaw Puzzle Pieces” – Cut the glaucoma information sheet into the six topic areas and place the different topics in six “Information Stations” around the classroom. Assign each student to one of the six “information stations” and instruct them to look over the resources at their “Information Station” together. The six topics will be: What is glaucoma, Cause, Who is at risk, Types of glaucoma, Symptoms, Treatment. Additional resources can be provided for each topic, because the more information the students will have, the better “experts” they become on their specific topic about glaucoma.

Next, tell the students that they will need to write notes to remember what they are learning from the resources they are reading and talking about within their group at the “Information Station”. Explain that

the notes are NOT to be sentences, but just words, phrases (parts of sentences), and ideas about what they are learning. As long as they understand what they are writing, neatness and perfect spelling do NOT matter at this time. Finding information and being able to note it quickly are what matter, because they will be able to use their notes to share what they know about their topic on glaucoma. Circulate among the groups to reassure the students about this fact, so that they do not get bogged down in being “perfect”. Encourage talking and cooperative writing.

“Jigsaw Puzzle Picture” – Now the “pieces” come together to create the “whole” picture: After the groups have had enough time to gather data at their “Information Station”, bring them together to form new groups. There must be one person from each “Information Station” in each of the new groupings. In other words, each new group of 6 will consist of one “expert” on causes, one expert on symptoms, one expert on treatment, and so on.

If the numbers are uneven, it is better to have 2 experts from the same “Information Station” than none at all; this may happen due to the relative number of stations to number of students.

Once the new groups are formed, have the students take turns sharing their “expertise” with the others in their new group. Students should now add new topic information to their notes. Have students in their new group transpose their notes to a graphic organizer that suits their preference, or another organizer that they create. See Handout #2: Glaucoma Graphic Organizers for samples to use. Continue to encourage everyone to keep their notes brief and NOT to concern themselves with super neatness and proper spelling if that is slowing them down. Share the completed graphic organizers with the notes from the six different topic with the class.

Going the Next Step – A Challenge Activity

“The Emotional Impact of Vision Loss”

Ask students to imagine the feeling of what would it be like if the glaucoma “thief” stole their vision one day and they could not see? Ask them to imagine that they just went to the Emergency Room because they could not see. The ER doctor tells them that they have acute glaucoma and time would tell if the treatment would restore any of their eye sight. Write about going to the ER, and then continue to write further about going home and getting through the rest of the day. Describe how your day would go. What would you do? What would be going through your mind? What would you be thinking as you lay in bed that night?

Allow some quiet reflection and have students write about their imagined experiences, thoughts, and feelings. Remind students to separate their paragraphs by the different topics they cover in their writing. Remind students to re-read and edit their story.

Lesson 9.3: Macular Degeneration – Missing Part of the Picture

Pre-GED Skills

- LAW 3 Use the writing process to generate, organize, connect, express, and evaluate ideas applying basic rules of sentence structure.
- LA 11 Select appropriate language and word choice in written selections according to intended audience, purpose, and occasion.
- SS 6 Understand, interpret and explain graphic models and stimuli such as diagrams, photographs, drawings, maps, graphs, charts and tables.

Introducing the Lesson

Show a picture of the parts of the eye. Either project it using a LCD projector or give a copy of a diagram of the eye to students. Review the anatomy of the eye. Give the example that if the human eye is considered a camera, then the retina is the photographic film that receives the images coming through the lens. The macula sits at the back of the eye in the center of the retina, the light-sensing nerve tissue that lines the back of the eye. All parts of the retina contribute to sight, but only the macula provides sharp, central vision.

Continue to explain that the macula -- a tiny area 5mm in diameter -- is the point on the retina where the light rays meet as they are focused by the cornea and the lens. If the macula is damaged, the central part of the images is blocked out. Vision is distorted or reduced.

To illustrate the effects of the disease, place a black circle (made of black construction paper) in the center of a colorful poster or picture. Read the scenario and discuss the questions.

Presentation of Targeted Pre-GED Skills

Materials needed: tablespoons

Ask students to define macular degeneration or to give some symptoms associated with having macular degeneration. Make sure to cover that some of the symptoms of macular degeneration are noticing wavy lines on objects, blurriness, or a blind spot in your vision. Announce to the students that they are going to experience what a blind spot is like. Tell students to find a partner. Pass out one spoon to each pair. Have the students take turns holding the spoon about 6” in front of the open eye of their partner, while that student covers one eye. Tell the students to stay close and move slowly around the room to look at things, but the spoon must always be directly in front of the partner’s open eye wherever they are looking, always about 6” from the eye. They may not “look around” the spoon. Circulate among the students to make sure they have the spoon in front of the open eye’s line of vision. Allow enough time for any nervous laughing and talking to subside, so partners can concentrate and “see” a blind spot.

After awhile, bring the students together to share their experience, thoughts, and feelings. Ask them if they have experienced someone sitting in front of them in a meeting, at the theater, at a sports event, in church, or in a class where the person’s head was in direct line with what they wanted to see. How does this feel? What do they do when this happens? Can you actually do anything about it? Read the scenario and discuss the questions.

Ask the students if they have ever experienced sore eyes or some particle in their eyes that caused them to not see clearly? What is that like? Now imagine always having something in front of your eyes that is blocking your vision of the whole picture, or something is wrong with your eyes that makes the picture you see look blurry. Explain that this is how macular degeneration can affect your vision.

Emphasize that if you notice any of these symptoms, you should see an eye doctor (ophthalmologist) as soon as possible. Macular degeneration occurs when the macula—the central portion of the retina that is important for reading and color vision—becomes damaged. Early detection and treatment can help you avoid severe vision loss.

Explain the risks associated with macular degeneration which are: Age — people aged 60 or older have a higher risk, family history — if it runs in your family, or if you have a certain abnormal gene, you may have a higher risk, gender — women are more likely to get it than men, and race — more common in Caucasians with light colored eyes, life style – smokers, people with high blood pressure, high cholesterol, poor nutrition, excessive exposure to sunlight.

Explain to the students they are receiving a handout about macular degeneration in outline form. Pass out Handout #1: An Outline of Macular Degeneration.

Divide the students into pairs. Explain that they will take the outline and use it to make three paragraphs about macular degeneration. Tell the students they can combine sentences using connecting words such as: for, and, nor, but, yet, so, because, before, until, since, while, if, even though, in addition, consequently, however, as result of, etc. Make clear they can add words to be more descriptive and more creative. Share paragraphs as a class.

Going the Next Step – A Challenge Activity

Think, Pair, Share

Think. Ask the students to take 3 to 5 minutes to think and complete the sentence, If I had vision loss, I would ...(need, want, do/not do, have to, change, etc.) with as many comments as possible that come to their minds, then list their sentence completions.

Pair. Have students quickly pair with each other. Combine their partner's ideas and see how many more they can think of in another 3 to 5 minutes.

Share. Gather the students together and share their comments on a master list on the board or a large paper. You and/or the students may do the writing. Ideas may be organized at the time of sharing or after all responses are given. Any graphic organizer may be used or write in a series of lists, a flow chart, or use an outline format. Invite students to add all other ideas shared onto their original lists.

Lesson 10.1: Hearing Loss – Uh, What Did You Say?

Pre-GED Skills

- SS 6 Understand, interpret and explain graphic models and stimuli such as diagrams, photographs, drawings, maps, graphs, charts and tables.
- SS 8 Interpret scientific concepts through the application of comprehension skills and visual processing skills to life science selections.
- LARS 1 Determine the main idea and identify relevant details, facts, and patterns of organization in fiction, non-fiction, poetry, workplace, and community documents.

Introducing the Lesson

Using a radio, turn to a radio program that does not have a strong signal. Make sure you also turn down the volume. Ask the students what they hear. Ask what happens when you turn the volume up. Make sure the radio program is still not too clear, due to a bad signal.

Explain that this is how someone, who is hard of hearing, is able to hear. Go on to say, even with hearing aids, it is difficult to distinguish all the sounds. Ask students what they think would be the best way to communicate with someone who has a hearing loss or is deaf and list their suggestions. Make sure that the following is listed: always face each other, do not cover your mouth when you talk, speak normally, do not shout, and do not exaggerate movements of the mouth and use facial expressions naturally. Ask students to read the scenario and discuss the questions.

Presentation of Targeted Pre-GED Skills

Ask students if they can describe the process of how we hear and discuss student's input. Pass out Handout #1: How the Ear Works.

The diagram is from: <http://www1.appstate.edu/~kms/classes/psy3203/Ear/Structure.htm>

Have the students watch the following video, if you have access to the internet, project the following video for the class to watch. Or, if there are individual computers for the students, have them watch the video individually. "How the human ear works." By Simmons

<http://www.youtube.com/watch?v=dCyz8-eAs1I&NR=1>

If you are unable to access the internet, make sure you describe "the process as: the ear has three main parts: outer, middle, and inner. Sound waves come in through the outer ear. They reach the middle ear, where they make the eardrum vibrate. The vibrations are transmitted through three tiny bones in your middle ear, called ossicles. The vibrations travel to the inner ear, a snail-shaped organ. The inner ear makes the nerve impulses that are sent to the brain. The brain recognizes them as sounds. As an additional note, the inner ear also controls balance.

Discuss the process as a class and then ask students to describe in their own words on their worksheet, how we hear. Also discuss if hearing is the only way we receive communication. Students should be able to say that communication also consists through writing, sign language, gestures, body language, pictures, etc..

Another useful website to use to see a diagram and description of the ear is: http://www.michigan.gov/documents/mdch/DCH0519A_201145_7.pdf

Make sure students understand that hearing loss comes in many forms. It can range from a mild loss in which a person misses certain sounds to a total loss of hearing. Sometimes hearing loss is due to heredity or it can be the result from disease, infections, accidents, certain medications, or long-term exposure to loud noises.

Explain that conductive hearing loss results from damage to the outer or middle ear. This occurs when sounds are unable to pass through the ear. It could be due to a blockage from earwax, an ear infection or a punctured eardrum. These can be treated.

Tell the class that sensorineural hearing loss is the result of damage to the hair cells in the inner ear. This is the most common cause of hearing loss. It can be caused by age, heredity, illness, injury, trauma, toxic substances or noise.

Explain that the potential for accidents and the existence of hazards imposes the need for safety precautions and recognition of harmful sources to our hearing. The most common damaging source is loud noise levels which include noisy music, motorcycles, lawn and maintenance equipment, power tools, gun use, firecrackers, and even hair dryers. The intensity, duration, and proximity of sound to the listener determine whether or not damage occurs. Loud noise can permanently damage the inner ear and could cause tinnitus, which is a ringing or a buzzing sound in the ear.

Explain that by protecting your ears, noise-induced hearing loss is 100 percent preventable. One should avoid loud noise or when involved in a loud activity, use ear protective devices.

Visit the website: Wise Ears. Since 1999, WISE EARS!® has been a popular national public education campaign to prevent noise-induced hearing loss (NIHL). <http://www.nidcd.nih.gov/health/wise/>

Pass out Handout #2: Ten Ways to Recognize Hearing Loss. Tell the students these questions come from the website: <http://www.nidcd.nih.gov/health/hearing/10ways.asp>

It is an Excerpt from NIH Publication No. 01-4913 . For more information, contact the NIDCD Information Clearinghouse.

Make sure it is known that the material on the handout is for general information only and is not intended for diagnostic or treatment purposes. A doctor or other health care professional must be consulted for diagnostic information and advice regarding treatment.

Going the Next Step – A Challenge Activity

Divide the class into four groups. Assign each group one video to watch on the internet. The group will then summarize the material and report back the results to the class.

Watch a video: “Getting Your Hearing Tested” [4 min 49 sec]

http://nihseniorhealth.gov/hearingloss/symptomsanddiagnosis/video/hb2_na_intro.html

“Hearing Aids” [4 min 37 sec]

http://nihseniorhealth.gov/hearingloss/treatmentandresearch/video/hb3_na_intro.html

“Older Adults and Hearing Loss” [4 min 27 sec]

<http://nihseniorhealth.gov/hearingloss/hearinglossdefined/02.html>

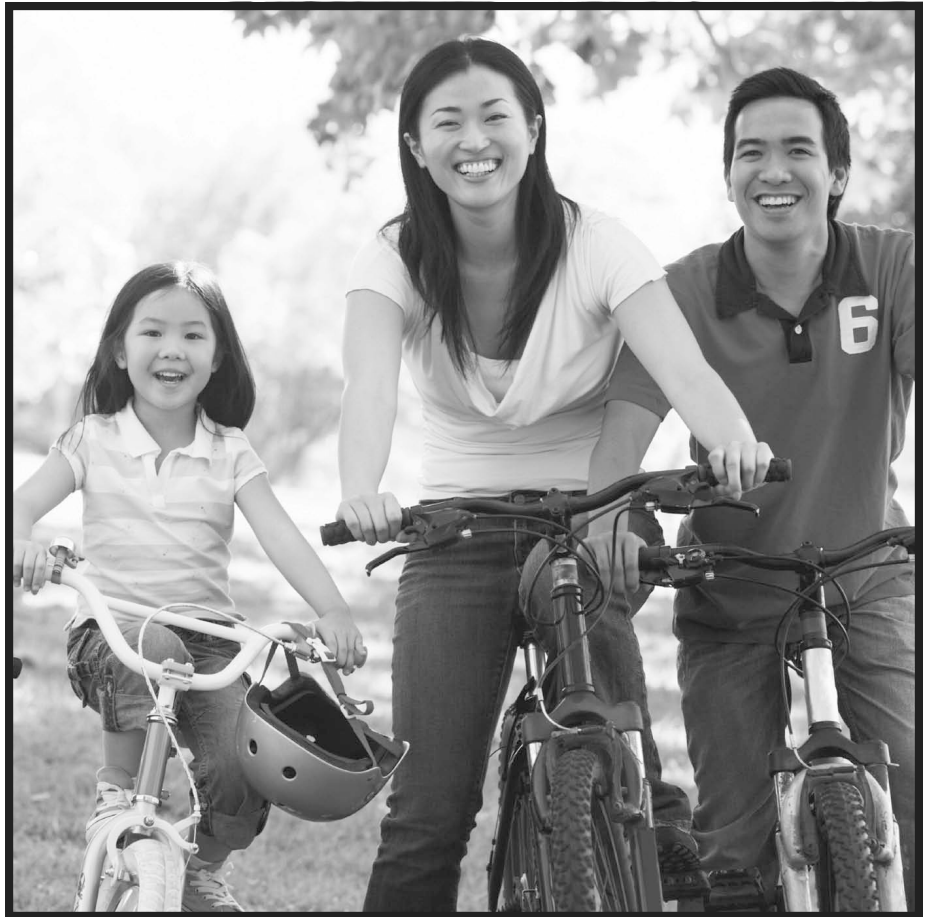
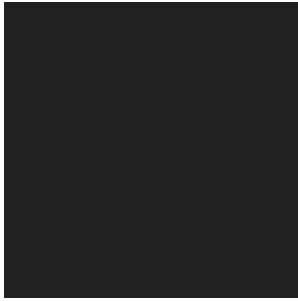
“Protecting Your Hearing” [4 min 12 sec]

http://nihseniorhealth.gov/hearingloss/causesriskfactorsprevention/video/hb4_na.html?intro=yes

These are some additional websites for information about hearing :

<http://nihseniorhealth.gov/hearingloss/hearinglossdefined/03.html>

<http://www.mayoclinic.com/print/hearing-loss/DS00172/DSECTION=all&METHOD=print>



Lesson Handouts

- Lesson
- Lesson
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- Lesson
- Lesson
- Lesson

Name: _____

Date: _____

Information Sheet #1 – Staying Healthy

Part 1 – Eating Right

Evidence shows that some of the leading causes of death in the United States, such as heart disease, cancer, stroke, some lung diseases, and injuries can often be prevented by improving personal health habits. Eating right can help you stay healthy.

Eating the right foods and the right amounts of foods can help you live a longer, healthier, life. Research has proven that many of the illnesses listed above can be prevented or controlled by eating right. Getting the nutrients you need, such as calcium and iron, and keeping your weight under control can help. Try to balance the calories you get from food with the calories you use through physical activity. It is never too late to start eating right. Here are some helpful tips.

- Eat a variety of foods, especially: Vegetables, Fruits, Dry Beans, Whole Grain Breads, and Cereals
- Eat foods low in fat, saturated fat, and cholesterol, especially: Fish, Poultry prepared without skin, Lean meat, and Low-fat dairy products.

Controlling Your Weight

Weighing too much or too little can lead to health problems. After age 45, many people gain too much weight. You can control your weight by eating healthy foods, keeping track of your weight, and being physically active.

Ask your health care professional:

- What is a healthy weight for me?
- What are some ways I can control my weight?

Part 2 - Physical Activity

Research shows that physical activity can help prevent at least six diseases: heart disease, high blood pressure, obesity, diabetes, osteoporosis, and mental disorders, such as depression. Physical activity also will help you feel better and stay at a healthy weight. Research suggests that brisk walking can be just as good for you as jogging. Try to do a total of 30 minutes of constant physical activity, such as fast walking, 5 days a week. Being active is important for both your physical and mental health. Start slowly and keep at it.

Before you start being physically active:

- Speak with your doctor about what activities are right for you.
- Choose something that can fit into your daily schedule.
- Choose an activity you like to do.
- Don't be afraid to try a new activity.
- Ask a friend to start with you or join a group.

Part 3 – Practice Prevention

Another method for staying healthy over the course of your lifetime is to practice prevention. Get regular health exams and follow the doctor's instructions. Instead of waiting until you get sick and searching for a cure, do things to prevent facing illness. If your goal is to keep your body strong enough to resist sickness and disease, you can avoid a number of illnesses that would otherwise be a problem. Have a healthy attitude, get plenty of rest and fresh air, and visit your doctor to prevent minor illness and serious diseases. A long and healthy life will be your reward, and you will save time, money, and a great deal of pain by adopting a preventative attitude toward your health.

Immunizations are not just for children, adults need immunizations also. Your need to protect your health doesn't end when you become an adult. You must get and maintain protection against diseases which can be prevented by vaccines.

Be an Advocate!

Encourage other adults in your family to check with their doctors for any immunizations they may need. Remind your friends and co-workers to get vaccinated every year. Make sure they understand that their childhood vaccinations will not protect them for the rest of their lives. Keeping friends and family healthy protects them and those around them stay healthy.

Part 4 – Stress Basics

According to the Mayo Clinic, stress is a normal psychological and physical reaction to the demands of life. Your brain comes hard-wired with an alarm system for your protection, such as when your brain perceives a threat; your body releases a burst of hormones to fuel your “fight-or-flight” response. When the threat is gone, your body returns to normal. Unfortunately, the nonstop stress of modern life means that your alarm system rarely shuts off.

That's why stress management is so important. Stress management gives you the tools to reset your alarm system. Without stress management, your body is always on red alert. Over time, that level of stress can lead to serious health problems. The pace of our lives makes stress management a necessary skill for all of us. Learning to identify your problems and implement solutions is the key to successful stress relief. Start learning stress management techniques now.

Name: _____

Date: _____

Handout #2 How Healthy are You?

Place a check mark in the column that applies to you. Tally your results to see if you have healthy habits.

	Always	Sometimes	Never	NA
1. Eat a healthy diet.				
2. Maintain the recommended weight for your age and sex.				
3. Adhere to an exercise program.				
4. Have regular health exams.				
5. Keep your immunizations up to date.				
6. Use stress reduction exercises.				
8. Avoid using any type of tobacco product.				
9. Try not to breathe second hand cigarette smoke.				
10. Always wear your seat belt.				
11. Don't drink and drive.				
12. Don't get into a car with a driver who has been drinking alcohol or using drugs.				
13. Wear protective headgear, such as motorcycle or bike helmets.				
14. Never swim alone.				
15. Talk to your doctor if you're feeling really sad or if you're thinking about harming yourself.				
16. Avoid situations where violence or fighting may cause you to be physically injured.				
Totals:				

Ideas taken from 1998-2011 *American Academy of Family Physicians*

Name: _____

Date: _____

Handout #1: It's All in the Packaging

Examine the packages and answer the following questions about the medication(s). Make sure students write the title of the section they found the information.

1. Why use this medication? Where do you find this information?
2. Who can take this medication? How do you know?
3. How many times a day do you take this medication? How do you know?
4. How much medication is in each dose? [in milliliters (ml) or milligrams (mg)]
5. Are there any warnings?
 - a. What are the warnings?
 - b. Are there any side effects?
 - c. When should you not use this medication?
6. For the over-the-counter medication, what are the different dosages for children and adults? Why do you think it is different?
7. For the prescription medication, do you think that a child would need the same dose of this medication as an adult? Why or why not?
8. Are there specific instructions on how to store this medication?
9. When does this medication expire?
10. Is this medication a pill, tablet, liquid or cream, etc.?
11. If it is an over-the-counter medication, should I talk to my doctor before I take this medication? Why?
12. When and how should a child be allowed to take this medication?

Name: _____

Date: _____

Handout #2: What do You Know?

Decide if the product is a medicine and answer yes or no.

Type of Product	Is it a medicine? Yes or No	Why?
Antiperspirant		Stops sweat glands from making sweat
Deodorant		Covers up the odor of sweat
Mouthwash for plaque and gum disease		Contains active ingredients that reduce plaque and gum disease
Regular mouthwash		Makes breath smell better
Dandruff shampoo		Treats dandruff and itching
Regular shampoo		Cleans hair
Fluoride toothpaste		Reduces cavities cleans teeth
Toothpaste without fluoride		Cleans teeth

Decide if the following is True (T) or False (F).

_____ 1. An OTC medicine has specific instructions on how to use the product.

_____ 2. It is okay to share prescription medicine.

_____ 3. One gulp from a bottle of medicine is considered 1 Tbls. of medicine.

_____ 4. Medicine can change the way my body works and responds.

_____ 5. A note is needed from a doctor to buy OTC medicines.

_____ 6. It is okay to take two different OTC medicines that have the same ingredients at the same time to help get over a cold faster.

_____ 7. If the OTC cold medicine does not make me feel better after a short amount of time, it is okay to take a second dose without reading the directions.

_____ 8. A medicine measuring spoon is the same as using a teaspoon or tablespoon from the silverware drawer.

Name: _____

Date: _____

Handout # 1: Where do You Go and Why?

1. How do you decide where to go when you or someone close to you gets sick? Make a list of the places that are available in your community.

2. Describe your experience of visiting at least two of the places that you have listed? Discuss the treatment, the cost, the wait time, and the results.

3. Describe the pros and cons of going to the place you went in # 2. If pro, tell what you learned, could you have been better prepared, and anything you would change. If con, explain why you would not go back and where would you go instead.

Name: _____

Date: _____

Handout #2: Where Would I Go?

Cut the strips apart. Give one to each student. Each student will then decide where they should go to find medical care and give an explanation for their choice.

Boiling water spilled on the leg
Abscessed sore
Slipped and fell and cannot move
2 AM, Stomach pains, vomiting
Need a blood test
Stayed up late and got up early and you are tired
Try to talk but nothing comes out
Diarrhea
Cold and cough with a slight fever
A car accident and the person cannot move
A bad headache
It's Sunday afternoon and you are having trouble breathing
Sore throat
Fainted and unresponsive
Five months pregnant and have severe stomach pains
Hit your toe and it is becoming swollen and black and blue
Sneezing and itching
Sprained ankle
Broke a leg playing tennis
Clothing caught on fire and burned the back and buttocks
It's the middle of the night and your baby has a high fever and can't stop coughing
Cut your finger slicing vegetables. You can't get it to stop bleeding
Need to get a physical for school
Stabbing pains in the chest that is spreading to the neck, jaw and left arm

Name: _____

Date: _____

Handout #3: Tell About Them

Using the internet, the library, or other sources, research and write about the different health care providers in your area: Define what each one does, hours of operation, who can go, insurance and cost, advantages and disadvantages.

Family Doctor:

Specialty Doctor:

Urgent Care Center or Clinic:

Emergency Room

Health Department

Name: _____

Date: _____

Handout # 1 Time Log for a Typical Day

TIME	ACTIVITY	KIND of ACTIVITY	PRIORITY

CATEGORIES of ACITIVITIES: job, education, entertainment, relaxation, shopping, finance, household chores, family/children/pets responsibilities, etc.

PRIORITY: must do, should do, or want to do

Name: _____

Date: _____

Handout # 2 Sleep Disorders and Their Definitions

Sleep Disorder	Definition
1. Sleep apnea	____ a. To breathe with a coarse rasping sound during sleep
2. Snoring	____ b. A state of moving around while not in bed but still asleep
3. Insomnia	____ c. A disorder resulting in uncontrollable leg or arm movements during sleep
4. Narcolepsy	____ d. A person doesn't breathe for long periods of time when asleep and does not get enough oxygen
5. REM sleep behavior	____ e. Persistent inability to fall asleep or to stay asleep
6. Sleepwalking	____ f. Sudden awakening from sleep, persistent fear occurs at night, screaming, sweating, confusion, rapid heart rate, inability to explain what happened, usually no recall of "bad dreams" or nightmares, may have a vague sense of frightening images.
7. Restless leg syndrome	____ g. Life-long disorder characterized by uncontrollable sleep attacks during normal waking hours
8. Night Terrors	____ h. Dream-enacting behaviors include talking, yelling, punching, kicking, sitting, jumping from bed, arm flailing, and grabbing

Name: _____

Date: _____

Law Suits against Big Tobacco

Divide into groups of four. Two students will represent the plaintiff and two will take the side of the tobacco company. After discussing each case, they should write down the evidence, evaluate it and come to a conclusion, stating who should win the case, the plaintiff or the tobacco company.

Lukacs v. Phillip Morris

Mr. Lukacs was 76 years old and a former three pack a day smoker. He was a former navy pilot turned real estate attorney and laid blame on shrewd advertising and nicotine addiction for his bladder cancer and living without a tongue due to oral cancer. At his trial he had to type his responses on a computer due to having no tongue or lower pallet which never healed.

Phillip Morris' attorneys argue that there is nothing Philip Morris said or did that caused Mr. Lukacs to begin smoking, and nothing the company did or said prevented him from quitting. The company sought to blame the source of the cancer on other possible cancer causing factors.

Cipollone v. Liggett Group

Rose Cipollone smoked one and a half packs of cigarettes for forty two years. She began smoking when she was 16 years old, smoked through her pregnancy and even through cancer related surgery. She believed that the "tobacco companies wouldn't do anything that was really going to kill you". Even though she died, her attorney based her case on the powerful and enticing advertising that overshadowed the warning labels. The case also was backed by research that nicotine was addictive and potentially carcinogenic.

The Liggett Group argued that Rose Cipollone was an independent woman, making independent decisions to continue smoking, and she was in control, not the nicotine.

Name: _____

Date: _____

Quit Smoking Support Groups

Read the descriptions about the Quit Smoking Support Group programs, then in small groups discuss and list what each support program offers.

Nicotine Anonymous is a Non-Profit 12 Step Fellowship of men and women helping each other live nicotine-free lives. Nicotine Anonymous welcomes all those seeking freedom from nicotine addiction, including those using cessation programs and nicotine withdrawal aids. The primary purpose of Nicotine Anonymous is to help all those who would like to cease using tobacco and nicotine products in any form. The Fellowship offers group support and recovery using the 12 Steps as adapted from Alcoholics Anonymous to achieve abstinence from nicotine. www.nicotine-anonymous.org/

Quit Net claims to be the world's largest and most comprehensive online quit-smoking service. It offers tools and support for people to quit and stay quit. There is a Quit Wizard and self assessment quizzes along with a Quit Guide and Quit Tips. www.quitnet.com

American Cancer Society's Guide to Quitting Smoking

Quitting smoking is not easy, but you can do it. To have the best chance of quitting and staying quit, you need to know what you're up against, what your options are, and where to go for help. You'll find this information here. Click on the topics below to get started. <http://www.cancer.org/Healthy/StayAwayfromTobacco/GuidetoQuittingSmoking/index>

National Cancer Institute

Direct tobacco Web site: www.smokefree.gov

Quitting information, cessation guide, and counseling is offered, as well as information on state telephone-based quit programs; 1-877-44U-QUIT (1-877-448-7848) Smoking cessation counselors from the National Cancer Institute are available to answer smoking-related questions in English or Spanish, Monday through Friday, 8:00 a.m. to 8:00 p.m. This toll-free telephone number connects you to counseling and information about quitting smoking in your state.

1-800-QUITNOW (1-800-784-8669/TTY 1-800-332-8615)

Name: _____

Date: _____

Matching Words with Definitions

1. carcinogen ()	a. the addictive drug in tobacco leaves
2. nicotine ()	b. a colorless, odorless and poisonous gas
3. stimulant ()	c. to engage or carry on a battle or campaign
4. addictive drug ()	d. tobacco that is sniffed through the nose, held in the mouth or chewed; 3 times stronger than a cigarette
5. tar ()	e. a substance that causes physiological or psychological dependence
6. carbon monoxide ()	f. a cancer-causing substance
7. to wage ()	g. a bitter poison for rodents with an almond-like odor
8. hydrogen cyanide ()	h. a drug that increases the action of the central nervous system, the heart and other organs
9. smokeless tobacco ()	i. smoke which is inhaled by bystanders near smokers
10. withdrawal ()	j. a thick, sticky dark fluid
11. secondhand smoke ()	k. Food and Drug Administration
12. ash ()	l. painful physical and psychological symptoms that occur when an addictive drug is discontinued
13. a chain smoker ()	m. to scheme or devise a plan to cause harm
14. filter ()	n. the fine particles remaining after a cigarette has burned
15. a heavy smoker ()	o. intending to do harm
16. FDA ()	p. a strainer made of paper used to separate out particulates
17. malicious ()	q. someone who smokes more than 15 cigarettes a day
18. to contrive ()	r. a person who smokes one cigarette after another

Name: _____

Date: _____

Really, I Didn't Know That.

Divide into pairs. One student reads the script for Lela and the other student reads the script for Lou. Discuss what you have learned.

Lela: Lou, let's talk. Let me ask you a couple of questions.

Lou: *Sure, about what?*

Lela: You'll see. Now, just answer, "Yes" or "No."

Lou: *Okay. I am listening.*

Lela: Would you ever knowingly eat poison?

Lou: *No, never, why?*

Lela: Just answer yes or no for now.

Lou: *Okay, no.*

Lela: Would you ever swallow hydrogen cyanide?

Lou: *The stuff that is used to kill rats? No!*

Lela: What about ammonia?

Lou: *No, that's used to clean floors and windows.*

Lela: How about carbon monoxide?

Lou: *This is ridiculous - NO!*

Lela: Would you consume formaldehyde?

Lou: *No way. You mean the stuff used to preserve dead stuff? Hey, where are we going with this?*

Lela: Hang in there. I have only 4,700 more ingredients to go through.

Lou: *What do you mean ingredients? Is this a death recipe?*

Lela: Well, I guess you could call it that.

Lou: *Ok, just tell me.*

Lela: These are just a few of the ingredients that go into cigarettes!

Lou: *That's not true. How could all those ingredients be in cigarettes? The FDA would make sure that these ingredients would not be in cigarettes.*

Lela: But they haven't. Not only that, second hand smoke contains over a thousand of these chemicals that are released into the air as particles and gases that we breathe.

Lou: *So, smoking is harmful to me even if I don't smoke because of breathing in the smoke? Really, I didn't know that.*

Lela: Yes, the second hand smoke is known to cause lung cancer, heart disease, "low birth-weight" births, and chronic lung ailments such as bronchitis and asthma (particularly in children) as well as other health problems according to the Campaign for Tobacco-Free kids.

Lou: *Thanks, Lela. This has helped me make up my mind to ban smoking in the restaurant. You sure did your research.*

Name: _____

Date: _____

Defying a No Smoking Sign

Discuss: Do you think people are entitled to go to a place expecting it to be a clean and healthy environment? What do you think of a person who ignores the no smoking sign and smokes? Should there be a consequence to the person that ignores the no smoking sign? If so, what should be the consequence?

Now read part of a report, *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, the Surgeon General has concluded that:

- Concentrations of many cancer-causing and toxic chemicals are higher in secondhand smoke than in the smoke inhaled by smokers.
- Breathing secondhand smoke for even a short time can have immediate adverse effects on the cardiovascular system and interferes with the normal functioning of the heart, blood, and vascular systems in ways that increase the risk of a heart attack.
- Nonsmokers who are exposed to secondhand smoke at home or at work increase their risk of developing heart disease by 25 - 30 percent.
- Nonsmokers who are exposed to secondhand smoke at home or at work increase their risk of developing lung cancer by 20 - 30 percent.

If you think Yes, there should be a consequence if a person smokes in a “no smoking” space, write at least three complete sentences stating why. After each statement, indicate if your reasoning is a fact or an opinion. Write a fourth sentence stating what you think the consequence should be for the person.

1. _____
2. _____
3. _____

Consequence: _____

If you think No, there should not be any consequence to a person that smokes in a “no smoking” space, write at least three complete sentences stating why a person should not have a consequence. After each statement, indicate if your reasoning is a fact or an opinion.

1. _____
2. _____
3. _____

Name: _____

Date: _____

Information Sheet #1

A New Terror

In January 2009, R.J. Reynolds introduced Camel Orbs, Strips, and Sticks, its newest dissolvable, smokeless tobacco products, into three test market cities: Portland, OR, Indianapolis, IN, and Columbus, OH. These are not the first of its kind. ARIVA and Stonewall tobacco companies have been on the market for some time. Because of the novel configuration, packaging, and flavoring of Camel's new dissolvables, the U.S. Federal Drug Administration is studying these and other dissolvable tobacco products for their potential appeal to children and other health impacts.

Attracting Kids to Tobacco Use

The new Camel dissolvables have a clear appeal to children. They look like candy, are flavored like candy, and are easily concealed so they could be used easily by kids, even in school, without being detected. The Camel Orbs are pellets of ground tobacco resembling Tic Tacs breath mints. The Strips are flat sheets of ground tobacco that work like dissolvable breath strips or even dissolvable medication strips for children (i.e., Tylenol Meltaways or Triaminic Thin Strips). The Sticks are thin sticks of ground tobacco that resemble toothpicks. The products come in flavors such as "fresh" – a minty option – and "mellow." The supposedly child-proof containers can easily be bypassed by teenagers. The tobacco companies know that almost all tobacco users start as children and have a long history of developing novel products, with kid-friendly flavors like Cherry Skoal, and packaging - Skoal Bandits to attract new users. These dissolvable tobacco products are just the latest in a plethora of novel smokeless tobacco products introduced in the past few years. R.J. Reynolds and Philip Morris USA have spent a record \$354 million in advertising for smokeless tobacco.

In addition to being attractive to children, the size and shape of Camel dissolvables makes them easy for children to ingest. An April 2010 study of Camel Orbs found that the pH level in the product makes them potentially more toxic than traditional moist snuff or cigarettes if ingested. In January 2009, the Indiana Poison Center issued a warning to parents that the products' resemblance to non-tobacco products put children at risk for accidental poisoning.

Youth Use of Smokeless Tobacco Use Has Increased

Because of the aggressive marketing and the variety of novel smokeless tobacco products by the big tobacco companies, youth use of smokeless tobacco (e.g., snuff and chewing tobacco) has increased after a long period of decline. Unfortunately, smokeless tobacco is not being substituted for smoking, but is used in addition to smoking. Other indications also show that non-smokers who use smokeless tobacco are more likely to begin smoking. The marketing for Camel dissolvables encourages smokers to use them when they cannot smoke by stating, "Enjoy Anywhere. Anytime. Anyplace." This can serve to undermine smokers who are trying to quit, leading to higher smoking rates and dual use of cigarettes and smokeless tobacco.

Health Harms of Smokeless Tobacco

Smokeless tobacco use is not a safe alternative to smoking. While data specific to dissolvables are not yet available, smokeless tobacco use can lead to oral cancer, gum disease, and nicotine addiction; and it increases the risk of cardiovascular disease, including heart attacks. Constant exposure to tobacco juice causes cancer of the esophagus, pharynx, larynx, stomach and pancreas. Smokeless tobacco users are at heightened risk for oral cancer compared to non-users and these cancers can form within five years of regular use.

What is Smokeless Tobacco?

You don't smoke it. You don't swallow it. All you do is slosh it around your mouth and spit out the brown juices every few seconds. YUCK! But that's all right because you're just chewing it not smoking it so that's a good thing, right? Wrong. Unfortunately, smokeless does not mean harmless. The fact is that chewing

tobacco is every bit as dangerous as smoking it.

Smokeless tobacco comes in three forms: dissolvables, snuff, and chewing tobacco. Snuff is a fine-grain tobacco that often comes in tea bag-like pouches that users “pinch” or “dip” between their lower lip and gum. Chewing tobacco comes in shredded, twisted, or “bricked” tobacco leaves that users put between their cheek and gum. The sucking and chewing that you do with the wad of tobacco allows nicotine, which is an addictive drug, to be absorbed into your bloodstream through the tissues in your mouth. You don’t even need to swallow.

Who Chews?

As many as 20% of high school boys and 2% of high school girls use smokeless tobacco, according to the Center for Disease Control and Prevention (CDC). Of the 12 to 14 million American users one-third are under age 21 and more than half developed the habit before the age of 13.

An American Pastime?

In the United States, chewing tobacco has often been associated with baseball. Players chewed it to keep their mouths moist, spit it into their gloves to soften them up, and used it to make a “spitball” pitch which was banned in 1920. By the 1950s chewing tobacco had fallen out of favor and most people were simply smoking it. Then, in the 1970s more people were becoming aware of the dangers of smoking and began to look at smokeless tobacco as what they thought was a safe alternative. Baseball players started chewing again: even mixing the tobacco with chewing gum! Over the years smokeless tobacco has gone in and out of favor with athletes. Unfortunately, many men and women still find time for chewing and spitting.

What Can Chewing Tobacco Do to Me?

The more immediate effects can disrupt your social life in the form of bad breath and yellowish-brown stains on your teeth. You’ll also get mouth sores (about 70% of spit tobacco users have them). Those affects are tame compared to the real consequences of chewing and spitting tobacco.

You can get:

- Cracked and bleeding gums and receding gums, which can eventually make your teeth fall out.
- An increased heart rate
- High blood pressure and irregular heartbeats
- Greater risk of heart attacks and brain damage
- Cancer

It has been medically proven that long-time use of chewing tobacco leads to cancer. Cancer from chewing tobacco doesn’t just occur in the mouth, although oral cancer can happen in the lips, the tongue, the floor and roof of the mouth, the cheeks, and gums. Some of the cancer-causing agents in tobacco can get into the lining of your stomach, your esophagus, and your bladder.

Reviewed by: Steven Dowshen, MD

Date reviewed: July 2008 http://kidshealth.org/teen/drug_alcohol/tobacco/smokeless.html

Name: _____

Date: _____

Information Sheet # 2: The Toll of Tobacco in Michigan

Look at the chart, and then answer the questions.

Tobacco Use in Michigan	
High school students who smoke	18.8% - 111,200
Male high school students who use smokeless tobacco	15.3% (females use much lower)
Kids (under 18) who become new daily smokers each year	16,000
Kids exposed to secondhand smoke at home	716,000
Packs of cigarettes bought or smoked by kids each year	26.1 million
Adults in Michigan who smoke	19.6% - 1,492,100

Nationwide, youth smoking has declined dramatically since the mid-1990s, but that decline has slowed considerably in recent years. The smoking rate among high school students - 20 percent in 2007 - has not declined significantly since 2003, following a 40 percent decline between 1997 and 2003, from 36.4 percent to 21.9 percent.

In addition, 13.4 percent of U.S. high school males currently use smokeless tobacco. U.S. adult smoking increased slightly to 20.6 percent (about 46 million) in 2008 from 19.8 percent in 2007, the first increase in adult smoking rate since 1994.

Deaths in Michigan from Smoking	
Adults who die each year from their own smoking	14,500
Kids now under 18 and alive in Michigan who will ultimately die prematurely from smoking	298,000
Adult nonsmokers who die each year from exposure to secondhand smoke	1,740

Smoking kills more people than alcohol, AIDS, car crashes, illegal drugs, murders, and suicides combined -- and thousands more die from other tobacco-related causes -- such as fires caused by smoking (more than 1,000 deaths/year nationwide) and smokeless tobacco use. No good estimates are currently available, however, for the number of Michigan citizens who die from these other tobacco-related causes, or for the much larger numbers who suffer from tobacco-related health problems each year without actually dying.

Using the chart and the formula given, figure out the answer of the following questions.

1. According to the chart, what was the approximate population of high school students in Michigan? (whole = part ÷ %)
2. Approximately how many male high school students used smokeless tobacco? (part = whole x %)
3. If we estimate that a pack of cigarettes cost \$6.00, how much money was spent by kids according to the chart? (# of packs x cost of pack)

Name: _____

Date: _____

The Real Cost of Smoking

Complete the problems. If each pack of cigarettes cost \$ 5.75, calculate how much a smoker would spend over the designated period of time.

One Pack Per Week

How much a week? _____

How much a month? _____

How much a year? _____

In five years? _____
(without an increase)

One Pack Per Day

How much a week? _____

How much a month? _____

How much a year? _____

In five years? _____
(without an increase)

Calculate how much of a person's income is spent on smoking cigarettes.

- John earned \$ 32,000 a year at his old job. Last year he smoked one and half packs of cigarettes a day. Cigarettes cost \$5.00 a pack. What percentage of John's income did he spend on cigarettes?

Cost of cigarettes for the year? _____

What percent of John's income did he spend on cigarettes? _____

- Now John earns \$ 7,000 more per year. However, the cost of cigarettes went up also. Cigarettes now cost \$ 5.75. If John still smoked one and a half packs per day, estimate first what percentage of his income would he spend on cigarettes, then do the math?

Cost of cigarettes for the year? _____

What percent of John's income would he spend on cigarettes? _____

- What do you think? If John quits smoking can he afford to buy a new van for his family? Why or why not?

ANSWER KEY

The Real Cost of Smoking

Complete the problems. If each pack of cigarettes cost \$ 5.75, calculate how much a smoker would spend over the designated period of time.

Two Packs Per Day

How much a week? **\$80.50**

How much a month? **\$348.83**

How much a year? **\$4,186.00**

In five years? **\$20,930.00**
(without an increase)

One Pack Per Day

How much a week? **\$40.25**

How much a month? **\$174.42**

How much a year? **\$2,093.00**

In five years? **\$10,465.00**
(without an increase)

Calculate how much of a person's income is spent on smoking cigarettes.

- John earned \$ 32,000 a year at his old job. Last year he smoked one and half packs of cigarettes a day. Cigarettes cost \$5.00 a pack. What percentage of John's income did he spend on cigarettes?

Cost of cigarettes for the year? **\$2,737.50**

What percent of John's income did he spend on cigarettes? **9%**

- Now John earns \$ 7,000 more per year. However, the cost of cigarettes went up also. Cigarettes now cost \$ 5.75. If John still smoked one and a half packs per day, estimate first what percentage of his income would he spend on cigarettes, then do the math?

Cost of cigarettes for the year? **\$3,142.65**

What percent of John's income would he spend on cigarettes? **8%**

Name: _____

Date: _____

Information Sheet #1: Myths About Alcohol

Cut each Myth apart and match with a Truth, from Information Sheet # 2.

1. MYTH: Alcohol is a stimulant.
2. MYTH: Beer before liquor, never been sicker - liquor before beer, you're in the clear.
3. MYTH: I can sober up quickly if I need to.
4. MYTH: Driving with someone who drank can be safe, because they drive extra carefully so they don't get pulled over.
5. MYTH: Everyone who gets drunk acts the same.
6. MYTH: Alcohol makes sex better.
7. MYTH: If I drink too much, the worst thing that can happen is I get my stomach pumped.
8. MYTH: Talk to me about drugs - that's a bigger issue than alcohol.
9. MYTH: Alcohol isn't harmful to my body.
10. MYTH: My friends will think I'm weird if I don't drink.
11. MYTH: Children cannot be alcoholics.
12. MYTH: Alcohol abuse and alcoholism are problems only for the individual drinker.
13. MYTH: People with alcoholism are morally weak individuals lacking will power.
14. MYTH: Alcohol is good for your health.

Name: _____

Date: _____

Information Sheet #2: Truths About Alcohol

Cut each Truth apart and match with a Myth, from Information Sheet # 1.

E. TRUTH: Alcohol has been falsely thought of as a stimulant because its initial effects on some people include feelings of euphoria and lowered inhibitions. Alcohol is classified correctly as a depressant because it later causes sedation and drowsiness. In high concentrations, alcohol can induce unconsciousness, coma, and even death.

K. TRUTH: This is an old urban legend used to explain why people get sick when they drink - but it's just not true. Your blood alcohol content (also known as BAC, the percentage of alcohol in your blood) is what determines how drunk you are. It doesn't matter what type of alcohol you chose to consume - a drink is a drink, and too much of any combination can make you sick.

H. TRUTH: The adult body can process approximately one drink per hour. If you think that taking a shower, drinking 10 cups of coffee or eating a loaf of bread will help you sober up - think again. The only thing your body needs is time — depending on your weight, it takes about three hours to eliminate every two drink you've had that night.

M. TRUTH: YIKES! Drinking and driving is extremely dangerous. This year, 10,839 people will die in drunk-driving crashes - one every 50 minutes. A person might think he's in control, but alcohol slows down reaction time which makes driving a car one of the worst decisions one can make — even if he's had only a little bit to drink.

F. TRUTH: Nope. There are lots of factors that affect the body's reactions to alcohol, including weight, age, gender, body chemistry, genetics, amount of food and alcohol consumed — the list can go on. The way one person reacts can be vastly different from how another person reacts. You can't predict how alcohol will affect you.

B. TRUTH: Wrong again. Alcohol can make people feel less uncomfortable in a social situation. But the reality is that alcohol can actually keep guys from getting or keeping an erection, and it can lower girls' sex drives, too. More importantly, alcohol can affect your decision-making ability: You might put yourself in a risky situation; you might think you're ready to have sex when you're not or you might forget to use a condom — which can result in pregnancy and/or contracting a sexually transmitted disease.

D. TRUTH: No way. If alcohol is drunk excessively, it can lead to alcohol poisoning which can cause death. Also, drinking excessive alcohol can cause vomiting. When drunk and unconscious, a person may inhale fluids that have been vomited, resulting in death by asphyxiation. Long-term, heavy use of alcohol can lead to addiction (alcoholism), and can even cause a heart attack or stroke.

I. TRUTH: Both drugs and alcohol are serious problems. Alcohol kills people just like cocaine, heroin and other serious illegal drugs. According to recent studies, nearly one-half (47%) of people, who began drinking before age 14, were alcohol dependent at some point in their lifetime.

Name: _____

Date: _____

L. TRUTH: Again, this statement is wrong. Large amounts of alcohol can take its toll on your body, causing disturbed sleep, nausea, and vomiting as well as a dreaded hangover. Heavy drinking can inhibit the firing of nerve cells that control breathing, a condition known as respiratory depression — a condition that can be fatal. Half of the states in the United States have set the legal limit for blood alcohol concentration (BAC) at 0.08 percent for motor vehicle operation. (BAC is usually expressed without “percent.”) This does not mean, however, that an individual is unimpaired at lower BACs. A BAC of 0.02–0.04 can impair memory and judgment. The effects of alcohol on an individual vary depending on the person’s weight, nutritional state, gender, exposure to other drugs, and other factors. Any amount of alcohol taken during pregnancy is considered risky.

G. TRUTH: Friends are you friends no matter what - and they won’t give up your friendship over something as silly as a beer. Also, keep in mind that most people are usually too focused on themselves to care what others are — or aren’t — doing.

J. TRUTH: Alcohol is the most used and abused drug among young people. A recent national poll reports that one in four eighth graders drank alcohol in the past month, and 18 percent of eighth graders got drunk at least once in the past year. Research using animal models suggests that the developing brain of the adolescent responds differently to alcohol than does the adult brain. Children who abuse alcohol may develop alcoholism, though the criteria for making the diagnosis may be different from those used to diagnose adults.

C. TRUTH: Alcohol abuse and alcoholism are social problems that touch many more lives than that of the individual drinker. Alcohol abuse is a contributing factor to many other social problems including auto crashes, domestic violence, and child abuse or neglect. In addition to the personal costs, alcoholism also has a severe economic impact on the country due to lost productivity, healthcare treatment, and costs attendant to administering the criminal justice system.

A. TRUTH: Alcoholism involves more than just drinking too much. It is known to be a complex disease that involves a variety of factors including genetic, environmental, social, and behavioral components. The physical dependence of alcoholics on drinking defines alcoholism as a disease that must be diagnosed, and as separate from alcohol abuse). In alcoholic individuals, the brain is affected by alcohol and promotes its continued use through both positive and negative reinforcements. Most notably, the severe physical withdrawal symptoms that result from stopping drinking serve as a strong biological force that can maintain drinking behavior.

J. TRUTH: Recent reports have indicated that moderate drinking (defined as one drink per day for women and two drinks per day for men) may lessen the risk for cardiovascular disease. These observations, however, do not give carte blanche for drinking alcohol. In considering such findings, it is important to weigh the benefits versus the risks. Although moderate drinking is associated with decreased risk for heart disease, it is also associated with increased risk of accidents. Drinking five or more drinks per day can lead to increased risks for stroke and cancer. In addition, pregnant women, people using certain medications, and those diagnosed with alcoholism or other medical problems should refrain from drinking entirely.

Name: _____

Date: _____

Information Sheet #3: How Can You Tell If Someone Has an Alcohol Problem?

A good first step is to answer the brief questionnaire below, developed by Dr. John Ewing. (To help remember these questions, note that the first letter of a key word in each question spells "CAGE.")

1. Have you ever felt you should Cut down on your drinking?
2. Have people Annoyed you by criticizing your drinking?
3. Have you ever felt bad or Guilty about your drinking?
4. Have you ever had a drink first thing in the morning to steady your nerves or to get rid of a hangover (Eye opener)?

One "yes" answer suggests a possible alcohol problem. More than one "yes" answer means it is highly likely that a problem exists. If you think that you or someone you know might have an alcohol problem, it is important to see a doctor or other health provider right away. He or she can determine whether a drinking problem exists and, if so, suggest the best course of action.

An additional quiz to help determine whether a drinking problem exist is found at: <http://alcoholism.about.com/od/problem/a/blquiz1.htm>

INFORMATION ON A.A.

Alcoholics Anonymous® is a fellowship of men and women who share their experience, strength and hope with each other that they may solve their common problem and help others to recover from alcoholism. The only requirement for membership is a desire to stop drinking. There are no dues or fees for AA membership; we are self-supporting through our own contributions. AA is not allied with any sect, denomination, politics, organization or institution; does not wish to engage in any controversy, neither endorses nor opposes any causes. Our primary purpose is to stay sober and help other alcoholics to achieve sobriety.

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Name: _____

Date: _____

Information Sheet #4: Economic Impact of Alcohol Abuse and Alcoholism

Alcohol abuse and alcoholism have a large economic impact on our society. In 1998, alcohol abuse and alcoholism cost an estimated \$185 billion in lost productivity, illness, premature death, and healthcare expenditures. For 1995, these costs were estimated to be over \$166 billion, and in 1992, they were \$148 billion. A large portion of these costs is borne, in various ways, by non-abusers (see Figure 14). While 45 percent of the costs of alcohol abuse fall on the abusers themselves and their families, 38 percent falls on government (in the form of lost or reduced tax revenue). Additional costs to non-abusers include, but are not limited to, the economic costs of the criminal justice system and higher insurance premiums, as well as the social costs of alcohol-related crimes and trauma. Some examples of the social costs of alcohol abuse and alcoholism are discussed in greater detail later.

Figure 14. Distribution of the cost of alcohol abuse in the United States in 1998.

Sources: NIAAA, NESARC and www.thecoolspot.gov

(NHTSA, 2009) Full cite: National Highway Traffic Safety Administration. "2008 Traffic Safety Annual Assessment ? Highlights?" DOT 811 172. Washington DC: National Highway Traffic Safety Administration, 2009. <http://www-nrd.nhtsa.dot.gov/Pubs/811172.pdf>

Name: _____

Date: _____

Handout #1: How Much Do You Know?

Choose your answer.

1. Another name for marijuana:
 - a. Blunt, ganja
 - b. Mary Jane
 - c. Pot, reefer, dope, weed
 - d. All of the above
2. Marijuana and hashish can:
 - a. Slow down reaction time
 - b. Impair balance
 - c. Increase heart rate
 - d. All of the above
3. Heroin can be:
 - a. Eaten, swallowed, smoked
 - b. Smoked, snorted, injected
 - c. Swallowed, injected, smoked
 - d. Chewed, snorted, injected
4. Opium and heroin can:
 - a. Cause drowsiness, be euphoric
 - b. Slow down breathing, cause constipation
 - c. cause dizziness, confusion, nausea
 - d. All of the above
5. Cocaine can:
 - a. Increase heart rate, blood pressure
 - b. Increase energy, mental alertness, reduce appetite
 - c. Cause anxiety, panic, paranoia, violent behavior
 - d. All of the above
6. Amphetamines are known as:
 - a. Glass, fire
 - b. Black stuff, block
 - c. Bennies, black beauties
 - d. All of the above
7. Methamphetamine can be:
 - a. Swallowed, snorted, smoked, injected
 - b. Swallowed, chewed, applied to the skin

- c. Snorted, eaten, smoked
 - d. Inhaled, applied to the skin, swallowed
8. MDMA (Methylenedioxy-methamphetamine) is also known as:
- a. Smack, white horse
 - b. Turnaround, speed
 - c. Ecstasy, uppers, clarity
 - d. Herb, magic mint
9. PCP is known as:
- a. Angel dust, peace pill
 - b. Soap, goop
 - c. Cubes, blue heaven
 - d. Skunk, skag
10. PCP, DXM (found in some cough and cold medicines) can:
- a. Give feelings of being separated from one's body and environment
 - b. Impair motor functions
 - c. Cause anxiety, tremors, memory loss
 - d. All of the above
11. LSD, mescaline (peyote) and psilocybin (magic mushrooms) can:
- a. Increased energy
 - b. Impair balance and coordination
 - c. Alter state of perception; hallucinations
 - d. Hypertension, blood clotting
12. Anabolic steroids can be:
- a. Injected
 - b. Swallowed
 - c. Applied to the skin
 - d. All of the above
13. Prescription drugs are safer to abuse than illegal "street" drugs because a doctor has prescribed them.
- a. True
 - b. False
14. Which is not an example of drug abuse:
- a. Taking the drug as prescribed
 - b. Taking higher doses of the drug prescribed
 - c. Sharing the drug with a friend
 - d. Taking a drug that was prescribed to a friend

Name: _____

Date: _____

Handout # 2: What Are the Warning Signs of Drug Abuse?

Frequently misses work	Never misses work
Inability to follow safety instructions	Always follows safety instructions
Not caring about your appearance	Meticulously dressed
Sudden moodiness; bad temper	Even tempered; cheerful
Noticeable change in job performance	Excel at work
Loss of coordination	Good dexterity
Health problems	Normal health
Family problems	Happy family life
Short on money just after being paid	Budgets well
Late for work or leaving early	Always on time for work
Increase in Frequency of breaks	Takes only the designated breaks
Sudden loss of weight	Keeps a healthy weight
Anxious; depressed	Calm; happy

Name: _____

Date: _____

Handout #1: Stress – How It Effects Us

Look at the three headings and write the “response to stress” under the correct heading.

Body

Mind

Behavior

Positive

Negative

--	--	--

Responses to stress:

- Feeling down, gloomy
- Inability to concentrate
- Sleeping too much
- Tense muscles
- Dry mouth and throat
- Feeling out of control
- Loss of appetite
- Alienate friends and family
- Sweating, feeling cold
- Drugs/alcohol to relax

- racing heart
- forgetfulness
- inability to sleep
- exercising
- shaking, shivering
- headache
- difficulty speaking
- talk it over
- blood pressure increases
- nervous habits

- upset stomach
- staying very busy
- hurting others
- elf-criticism
- angry, shouting
- crying
- feeling upset
- arguing
- aggressive
- fearful

Name: _____

Date: _____

Handout #2 A: Finding Balance in Life

Stress affects everyone, so it is important to identify the stressors in your life that are out of balance, and learn ways of coping with these stressful situations.

Ask your self the following questions:

- Do your responsibilities make you resentful?
- Do you often feel anxious about the demands on your time?
- Do you feel you spend too much time on one area and not enough on another?
- Do you have enough time for yourself?
- Do you feel guilty taking time for yourself?

Answer each

Identify the demands and “stressors” at home that absolutely have to be accomplished:

Identify the demands and “stressors” at work or school that absolutely have to be accomplished:

Identify your personal demands or “stressors” that absolutely have to be accomplished:

If you find you have a lot more stressors in one situation than another, you need to find a ways of relieving this stress and in order to bring more balance into your life. Identify some stress relievers that you have used in order to reduce your stress. Decide if the method(s) used worked for you.

Examples of stress relievers:

- Relax – use visualization, meditation, breathing (taking deep breaths to relax), or progressive relaxation (this process involves: tightening different parts of the body (one at a time) followed by a 20 to 30 second relaxation of the part. Repeat this process going from one end of the body to the other end.)
- Exercise – walking, biking, dancing, swimming, running, aerobic exercise
- Laugh – find things that make you laugh; not cruel or sarcastic, but positive and upbeat – cartoons, jokes, silly items, books, movies, etc.
- Practice being optimistic – using self-talk to have a positive attitude, find the best in any given situation, practice positive affirmations
- Massage the tense areas – neck, back and feet
- Spend time with people you enjoy

Name: _____

Date: _____

Handout #2 B: Finding Balance in Life

- Listen to music
- Work on a hobby
- Play a game
- Practice a musical instrument
- Talk with a relative or friend
- Journal writing – keep a diary of the experiences and thoughts that seem to be causing the most stress
- Others

Stress relievers that I have used:

How effective were these stress relievers at the time?

What would you add to help reduce stress and add balance in the future?

Remember that keeping your body healthy is one of the best ways to cope with stress, so:

- Eat a well balanced diet
- Get enough sleep
- Exercise
- Limit caffeine and alcohol
- Learn to practice relaxation techniques
- Take a break from work and balance it with fun activities

Name: _____

Date: _____

Handout #3: Different Types of Stress

Managing stress can be difficult because there are different kinds of stress.

The American Psychological Association identified 3 different types of stress:

- Acute
- Episodic
- Chronic

Each one of these types of stress has their own characteristics, symptoms, duration, and treatment approaches.

There is also Complex Post Traumatic Stress Disorder that comes from stressors that happened a long time ago but continue to negatively affect the immune system because of emotional and cognitive issues that have their own characteristics, symptoms, duration and treatment.

Using the internet, library or other sources, research the different types of stress and write a short description of each including the characteristics, symptoms, duration, and treatment. Then report your results to the class.

Some websites for additional information are:

<http://www.diy-stress-relief.com/kinds-of-stress.html>

<http://www.apa.org/helpcenter/stress-kinds.aspx>

http://stress.lovetoknow.com/Five_Kinds_of_Stressors

<http://stress.lovetoknow.com/complex-post-traumatic-stress-disorder>

Acute: _____

Episodic: _____

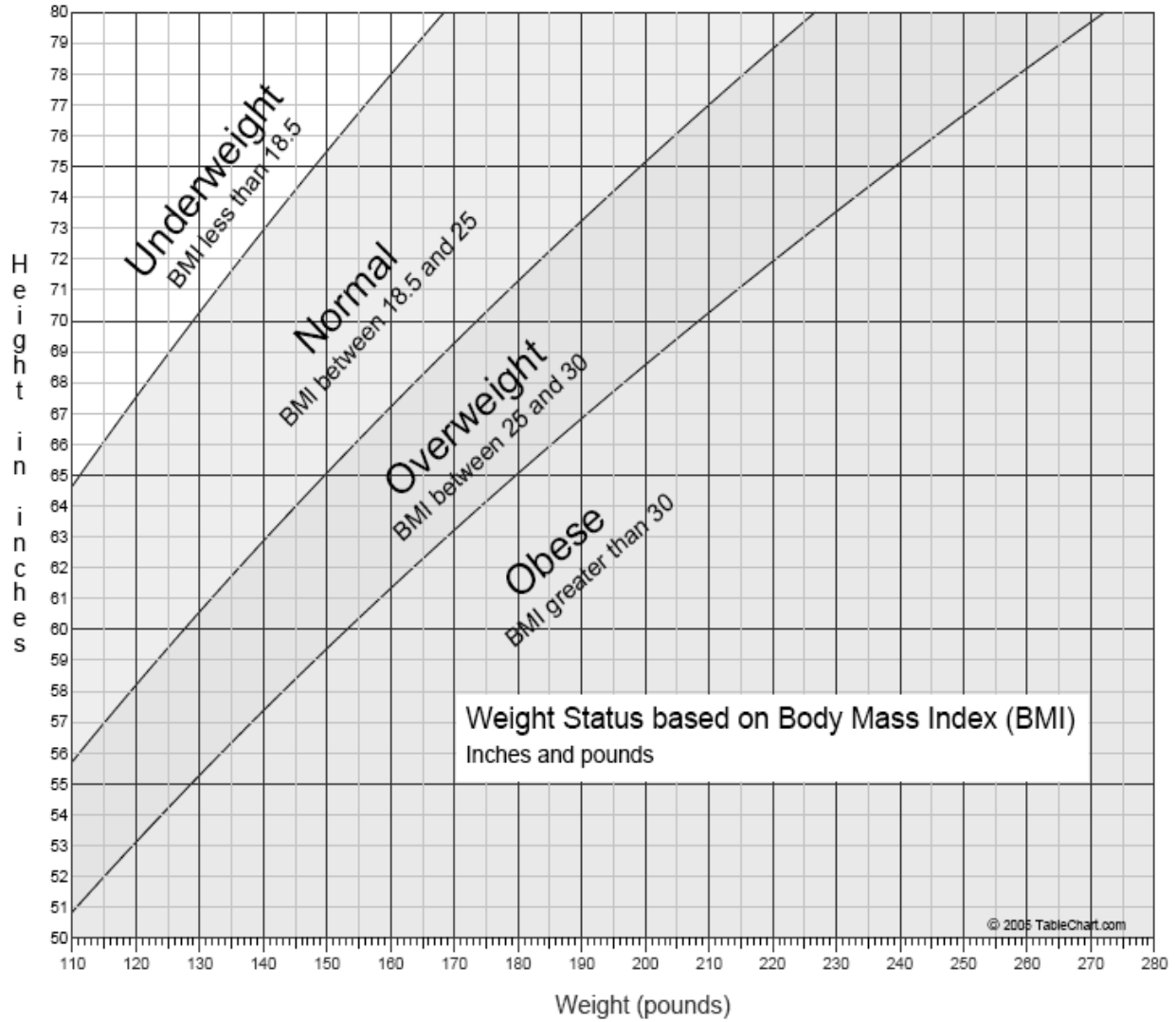
Chronic: _____

Complex Post Traumatic Stress _____

Name: _____

Date: _____

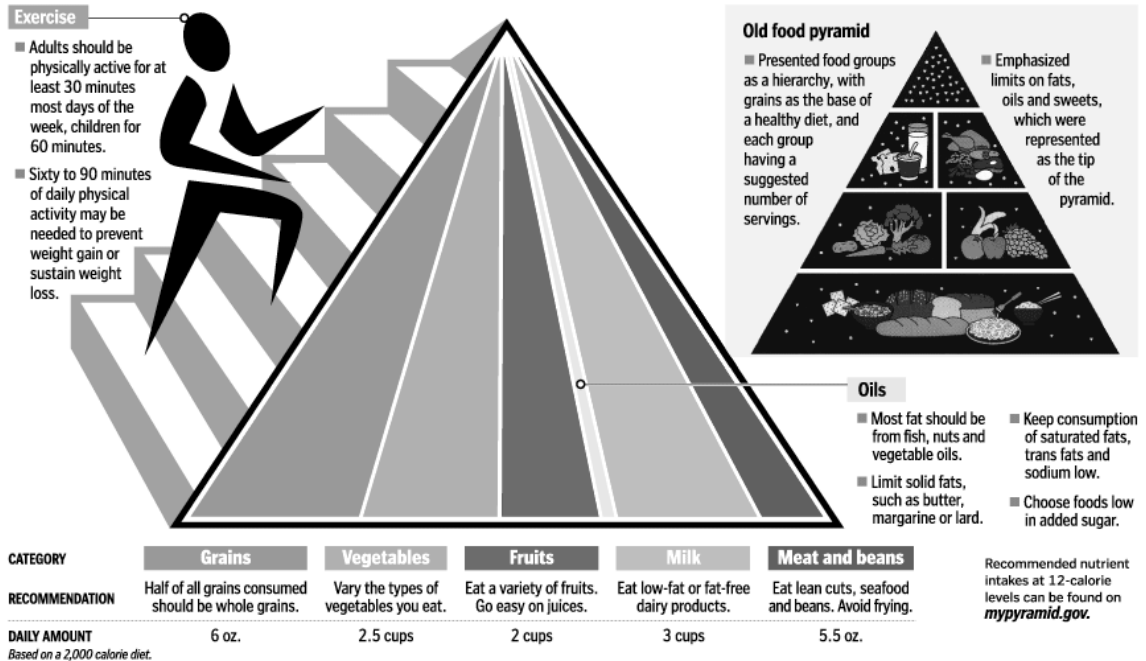
Handout #1: Body Mass Index Chart.



Name: _____

Date: _____

Handout #2: A Healthy Diet Is



How far away from a healthy diet and healthy weight are you?

1. A long way to go
2. Some focus needed to get there
3. STOP, I'm there!

If you have a long way to go, identifying the foods, situations and feelings that trigger unconscious overeating is your first step. Triggers can be food, situations, and feelings. What are some "triggers" for you – to overeat, to cook too much, to snack too much, to buy too much, to make non-nutritious choices at home or in the grocery store?

Why is it important to identify your triggers, your problems, and your needs before you can change?

What support and help would you find to be the best for you to achieve a healthy diet and consequently a healthy weight?

What are the first three things you can do to start being healthier TODAY?

Name: _____

Date: _____

Handout #3: It's Time Today is the Day

Food Diary

Date: _____

Weight: _____

Time	Food & Beverage	Amount	Calories
	TOTALS		

How many glasses of water did you drink today?

Physical Activity	Minutes	High/Medium/Low Intensity	Calories

How I did today: SUPER GREAT OK WILL DO BETTER TOMORROW

Name: _____

Date: _____

Handout #1: People Pictures

Provide pictures of different body types taken from magazines. Have students write their reactions to the photos below:

1. Photo #1:

2. Photo #1:

3. Photo #1:

4. Photo #1:

5. Photo #1:

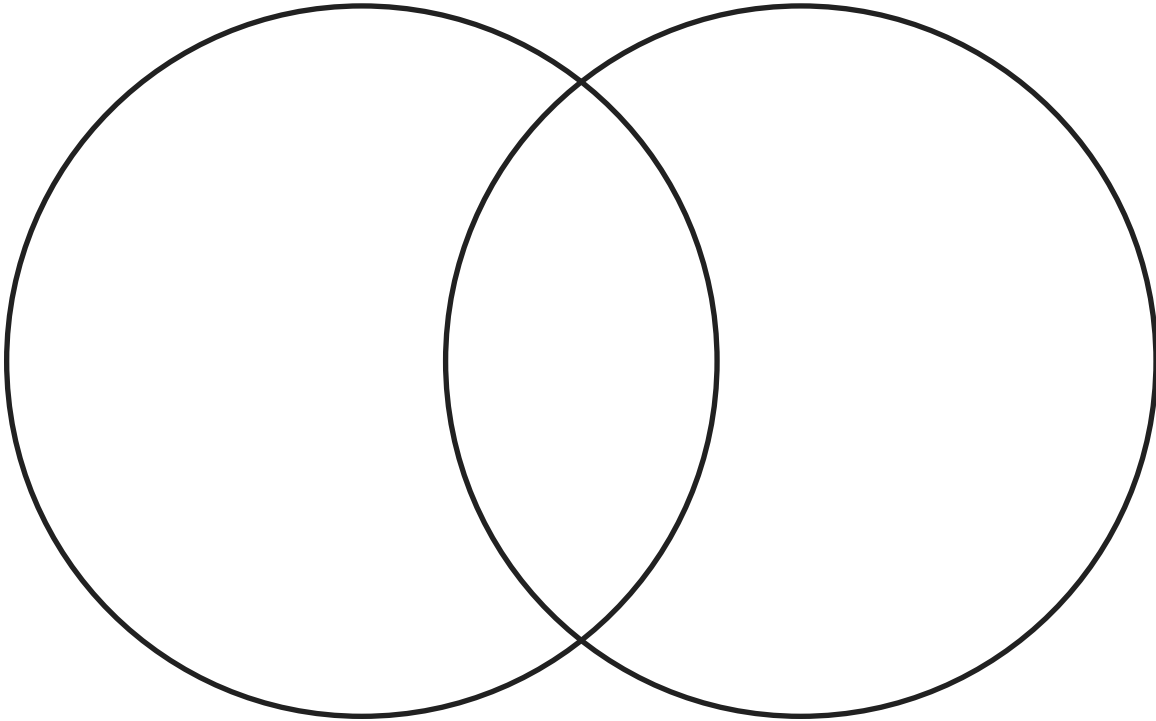
6. Photo #1:

Name: _____

Date: _____

Handout #2: Dying to Lose –Comparing Anorexia and Bulimia

Venn Diagram



1. What conclusions can be made when comparing these two eating disorders?
 - a. _____
 - b. _____
 - c. _____
 - d. _____

Name: _____

Date: _____

Handout #1: Healthy Digestion: by DiscoveryHealth.com writers Discovery Fit and Health

When we talk about the digestive system, we should start with the brain because even before the food enters the mouth, we're thinking about it — we're planning what we want to eat, smelling its aroma as it simmers on the stove, and looking at it on the plate. We do, in a very real sense, eat with our eyes, or more specifically, with our heads. When we see or smell food, or even if we think about a food we love, the brain sends signals to the nerves that control the gastrointestinal tract.

These signals put the digestive system on alert, as it were — our mouth begins to water, the stomach starts to contract to be ready to receive the food, and the pancreas, a glandular organ that releases enzymes essential to digestion, starts to secrete chemicals that will break down the food.

The Mouth: Inside the mouth the food is ground and broken down by the teeth while the saliva lubricates the food. Although we tend to secrete saliva more during meals or when thinking about food, we secrete small amounts of saliva to moisturize the mouth throughout the day. But saliva does more than simply moisten the food. It contains enzymes that start the chemical breakdown of the food, a process that will continue in the stomach and in the intestines.

The Esophagus: Once the food is chewed and moisturized by the saliva, it is pushed back by the tongue into the throat, where muscles propel the food into the food pipe, or the esophagus. The esophagus pushes the food downward by an action that we call peristalsis, which is basically an orderly sequence of contractions like “the wave” motion we might see moving across stadium bleachers.

These contractions, which push the food down into the stomach, are powerful enough to allow us to swallow even if lying down — or upside down. Astronauts, for example, have no trouble swallowing in space, where no gravity forces food from the mouth to the stomach. Between the esophagus and the stomach a sphincter ensures that the passage normally opens only one way — from the esophagus into the stomach.

The Stomach: The stomach breaks down the food, not only physically with its powerful contractions, but also chemically through the action of enzymes originally mixed into the food in the mouth and the stomach's own powerful acids and enzymes. Although most of the enzymes, which chemically break down the food, are secreted in the small intestine, the small amounts secreted with the saliva and in the stomach juices jump-start the process. By the time the food leaves the stomach it has the consistency of porridge.

<http://health.howstuffworks.com/human-body/systems/digestive/healthy-digestion.htm>

Name: _____

Date: _____

Handout # 2: Symptoms and Treatment for GERD

Most people have experienced indigestion or heart burn. It usually occurs soon after eating and is only occasional, less than once a week. However, if heartburn occurs more frequently it could be an indication of gastroesophageal reflux disease (GERD). GERD is known as a chronic digestive disease that occurs when stomach acid, or occasionally, bile flows back (refluxes) into the esophagus. This takes place when the sphincter muscle at the lower end of the esophagus relaxes at the wrong time, thus allowing stomach acid to back up into the esophagus.

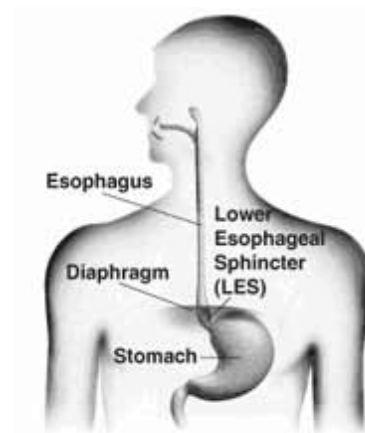
Symptoms of GERD vary from person to person. Some of the symptoms of GERD are a burning sensation in the chest that may have started in the upper abdomen and radiated up the neck. Other symptoms could be “heart burn” while lying down (especially at night), terribly uncomfortable reflux while bending over which could lead to a sour taste in the mouth, difficulty or pain while swallowing and an interference with one’s daily routine.

GERD should be treated medically due to possible tissue damage that results from repeated or prolonged exposure of the lining of the esophagus to acidic contents from the stomach. It usually requires lifestyle changes and medication.

Some lifestyle changes that can be made are to stop smoking, avoid foods and beverages that make the symptoms worse, lose weight if needed, eat small, frequent meals, wear loose-fitting clothes, decrease stress, avoid lying down for 3 hours after a meal, and sleep with your head on an incline.

A doctor may recommend some over-the-counter antacids or prescription proton pump inhibitors, both of which reduce stomach acid. Sometimes prokinetics can be prescribed to help the stomach empty faster.

For additional information on the digestive system go to: <http://digestive.niddk.nih.gov/ddiseases/pubs/indigestion/>



Name: _____

Date: _____

Handout #3: Diagnosis of GERD

Most of the time GERD is diagnosed by the symptoms alone, but if a person does not improve with lifestyle changes or medication, additional testing may be required. Using the internet, look up these tests and be prepared to report the results of your research. There are some suggested websites to look at for each of the tests listed.

- An ambulatory acid (ph) probe tests
Medical College of Wisconsin <http://www.mcw.edu/display/docid2566.htm>
- An upper GI X-ray test
Cleveland Clinic http://my.clevelandclinic.org/services/gastrointestinal_exams/hic_gi_x-ray_examinations.aspx
- A motility study test
Dartmouth-Hitchcock http://patients.dartmouth-hitchcock.org/gi/esophageal_manometric_motility_study.html
Gastroenterology Specialist of Oregon http://www.gispecialists.org/procedures_details.cfm?ProcedureID=8
- An upper endoscopy test
Med TV Video. This is a video for a person going to have an endoscopy. There are 25 short clips, however for the purpose of knowing what is involved to prepare for and to have an endoscopy, only the first through the eighth clips are necessary.
[http://digestive-system.emedtv.com/egd-\(upper-endoscopy\)-video/problems-in-the-upper-digestive-tract-video.html](http://digestive-system.emedtv.com/egd-(upper-endoscopy)-video/problems-in-the-upper-digestive-tract-video.html)

Name: _____

Date: _____

Student Worksheet

Directions: In a small group, read “Six Ways to Fight the Flu” and “Cold vs. Flu”. Discuss the information read in your group. Then answer the following questions using complete sentences. Share your answers with the class.

Read: Six Ways to Fight the Flu

1. Get the flu vaccine.
2. Wash your hands often.
3. Keep your distance if someone is sick (coughing, sneezing, etc.).
4. Avoid touching your nose, eyes, and mouth.
5. Cough or sneeze into a tissue or your elbow — not into your hands.
6. Stay home if you have the flu.

http://kidshealth.org/teen/infections/colds_and_flu/fight_flu.html

Cold vs. Flu

Why Should I Get an Influenza (Flu) Vaccination?

The Center for Disease Control (CDC) recommends a yearly flu vaccination as the first and most important step in protecting against the flu. The U.S. 2010-2011 seasonal influenza vaccine will protect against an H3N2 virus, an influenza B virus, and the 2009 H1N1 virus that emerged last year to cause the first global pandemic in more than 40 years and caused much illness and many hospitalizations and deaths. CDC recommends that everyone 6 months and older get a 2010-2011 flu vaccine for the upcoming season as vaccine is available.

Is it a Cold or the Flu?

You need the flu vaccine to prevent the flu, but nothing can prevent the common cold. A cold, including chest colds and head colds, can be caused by more than 200 viruses; influenza (flu) is caused by either influenza A or B viruses. There is a quiz on the Internet that you can take to determine whether you have a cold or the flu at: <http://www.webmd.com/cold-and-flu/cold-or-flu-quiz>. Below is a chart that might help you determine just what you have.

Symptom	Cold	Flu/H1N1
Fever	Fever is rare with a cold.	Fever is usually present with the flu in up to 80% of all flu cases. A temperature of 100°F or higher for 3 to 4 days is
Coughing	A hacking, productive (mucus-producing) cough is often present with a cold.	A nonproductive (non-mucus producing) cough is usually present with the flu (sometimes referred to as dry cough).
Stuffy Nose	Stuffy nose is commonly present with a cold and typically resolves spontaneously within a week.	Stuffy nose is not commonly present with the flu.

Symptom	Cold	Flu/H1N1
Chills	Chills are uncommon with a cold.	60% of people who have the flu experience chills.
Tiredness	Tiredness is fairly mild with a cold.	Tiredness is moderate to severe with the flu.
Sneezing	Sneezing is commonly present with a cold.	Sneezing is not common with the flu.
Sudden Symptoms	Cold symptoms tend to develop over a few days.	The flu has a rapid onset within 3-6 hours. The flu hits hard and includes sudden symptoms like high fever, aches
Headache	A headache is fairly uncommon with a cold.	A headache is very common with the flu, present in 80% of flu cases.
Sore Throat	Sore throat is commonly present with a cold.	Sore throat is not commonly present with
Chest Discomfort	Chest discomfort is mild to moderate with a cold.	Chest discomfort is often severe with the flu.
Aches	Slight body aches	Severe aches and pains are common with the flu.

Questions to be answered in complete sentences.

1. Name two symptoms which are uncommon with a cold but common for the flu.
2. Name two symptoms which are uncommon with the flu but common for a cold.
3. Name a symptom that is rare with a cold.
4. What are the sudden symptoms of the H1N1 flu?
5. True or False: Headache is present in 70% of flu cases.
6. Name three things you should do to prevent getting the flu.

Write About It!

Write at least three paragraphs. Convince someone in your class how important it is to get vaccinated against the flu this year. List reasons and give examples to support your claim.

Be sure to:

- Indent paragraphs
- Include an introductory paragraph, at least one body paragraph, and a conclusion paragraph.
- Write paragraphs using complete sentences and transition words (first, next, then, etc.).
- Use appropriate grammar, capitalization, and punctuation skills.

Name: _____

Date: _____

Information Sheet #1 Measles

Measles is caused by infection from the rubeola virus. This virus is contained in the millions of tiny droplets that come out of the nose and mouth when someone with measles coughs or sneezes.

Measles is an extremely contagious disease. You can catch measles by breathing in these droplets or, if the droplets have settled on a surface, by touching the surface and then placing your hands near your nose or mouth. Ninety percent of people without immunity sharing living space with an infected person will catch it. The measles virus can even survive on contaminated surfaces for a few hours!

Once inside your body, the virus multiplies in the back of your throat and lungs before spreading throughout your body, including your respiratory system and the skin. Symptoms include fever, cough, runny nose, red eyes and a generalized rash. Someone with measles is infectious for two to four days before the rash appears and for about five days after it appears.

Early Identification

The most common way to identify measles is the occurrence of a rash on the skin. The rash will cause an itchy discomfort. The rash will consist of large red blotches that look as if they're connected. Measles in adults tends to spread from the head and chest downward to the rest of the body.

Other Symptoms

One of the first symptoms with adults, who have contracted the measles, is a fever. The fever is usually mild and brings on other signs of the measles such as a runny nose and dry cough. Other symptoms of measles in adults include sensitivity to light, diarrhea and earache. This combination of symptoms is usually followed by a temperature spike, this means the fever may become more severe.

Prevention/Solution

Adults can prevent measles by getting a measles, mumps and rubella vaccination, also known as an MMR vaccine. Just as the name implies, this vaccine protects against measles, mumps and rubella. However, there is also a vaccine that protects only against measles. The measles vaccine and the combined MMR vaccine are very safe and effective and generally have few side effects

National Foundation for Infectious Diseases:

4733 Bethesda Avenue, Suite 750, Bethesda, MD 20814 (301) 656-0003.

Web site: www.nfid.org August 2009

Name: _____

Date: _____

Information Sheet #2 - Shingles

Anyone who has had chickenpox as a child is at risk for developing shingles later in life, and up to 20% do. After a person has chickenpox, the Varicella zoster virus (VZV) can remain inactive in nerve cells near the spinal cord and reactivate later as shingles. Shingles is the most common complication of chickenpox. Shingles and chickenpox are caused by the same virus and like chickenpox, shingles are contagious. You can't catch shingles from someone who has shingles, but you can catch chickenpox from someone with shingles if you have not had the chickenpox or have not had the chickenpox vaccine.

The virus causing both these diseases remains dormant in the body and can reappear as shingles. Shingles is more common in older adults, and because of this, there is a shingles vaccine which is available for people age 60 and over.

Symptoms of Shingles

Shingles symptoms happen in stages. At first you may have a headache or be sensitive to light. You may also feel like you have the flu but not have a fever.

Later, you may feel itching, tingling, or pain in a certain area. That's where a band, strip, or small area of rash may occur a few days later. The rash turns into clusters of blisters. The blisters fill with fluid and then crust over. It takes 2 to 4 weeks for the blisters to heal, and they may leave scars. Some people only get a mild rash, and some do not get a rash at all. The rash occurs on only one side of the body.

It's possible that you could also feel dizzy or weak, or you could have long-term pain or a rash on your face, changes in your vision, changes in how well you can think, or a rash that spreads. If you have any of these problems from shingles, call your doctor right away. He or she will make a visual diagnosis and use a laboratory analysis of the blister fluid. A doctor can prescribe medicine to make you feel better, but it will not cure the shingles.

Discuss these questions in your group. Be prepared to report your conclusions back to the class.

1. Should vaccines for measles be mandatory?
2. What can you do in your own environment to let people know about the importance of inoculations for communicable diseases?

Name: _____

Date: _____

Handout #3 Graphic Organizer

Use this idea map to organize information. In one of the top boxes write "Measles" and in the other top box write "Shingles". Then write three facts about each disease in the boxes below.

Name: _____

Date: _____

Handout #4 Shingles Quiz

- Which of these statements is not true about shingles?
 - Shingles is a skin rash caused by a herpes virus.
 - Shingles can cause blisters that itch.
 - Shingles is related to chickenpox.
 - Shingles is caused by the Varicella zoster virus.
- Signs and symptoms of shingles are generally...
 - Painful, burning, itching skin.
 - Blisters that fill with fluid, then crust over.
 - A rash that turns into clusters of blisters.
 - All of the above
- The shingles vaccine is available for...
 - People of any age.
 - People between the ages of 13-55.
 - People over the age of 60.
 - Babies under 2 years of age.
- Once you have had chickenpox, you cannot catch shingles from someone else.
 - True
 - False
- In what part of the body does the Varicella zoster virus (VZV) settle?
 - In only one pair of the 12 pairs of cranial nerves
 - In nerve roots and spinal cord
 - In the sciatic nerve
 - In the digestive tract
- Most doctors reach a diagnosis of shingles by which method?
 - Shingles is usually visually diagnosed.
 - Doctors use a laboratory analysis of blister fluid.
 - A and B
 - None of the above
- In general, the cure for shingles is...
 - The shingles vaccine.
 - Zovirax, Valtrex, and Famvir antiviral medications.
 - Allowing the illness to run its course.
 - here is no cure for shingles.
- Where would you find shingles on a person's body?
 - On one side of the back, chest, face, and/or legs
 - On both sides of the back, chest, face, and/or legs
 - Mainly on the chest or back
 - All over the face and body

Name: _____

Date: _____

Information Sheet #1 - Staphylococcus Bacteria

Staph infections are caused by the bacteria *Staphylococcus aureus* which can live everywhere on the human body. Are all bacteria bad? No. Some bacteria help us to do many things such as, digest food, clean up old skin, and remove waste. However, bacteria can revolt against our bodies. When skin is punctured or broken, staph bacteria can enter the wound and cause infection. Try to keep cuts, scraps, and rashes clean and covered. Staph infection can usually be treated by washing the skin with an antibacterial cleanser, soaking the wound, applying an antibiotic ointment, and covering the skin with a clean dressing. Then if concerns arise, seek medical attention immediately.

Staph bacteria can spread through the air, on contaminated surfaces, and from person to person. We can even carry staph from one area of our body to another, or pass it to other people, from our dirty hands and fingernails. Good hand washing is vital to preventing staph infections. Unfortunately, with the overuse of antibacterial cleansers and sprays, some bacteria strains are becoming immune to the products thus making the soaps and sprays ineffective. The more antibacterial products we use, the more certain strains of bacteria become immune to them. Some bacteria have actually become stronger and more difficult to control!

Unfortunately, a staph infection can become deadly. It is one of several bacteria which can lead to necrotizing fasciitis, otherwise known as flesh-eating bacteria. There have been both amputations and deaths from staph, and MRSA, a particular antibiotic-resistant staph strain and flesh-eating bacteria.

When we come into contact with germs, we can unknowingly become infected by simply touching our eyes, nose, or mouth. Once we become infected, our family and friends are vulnerable to the same illness. Frequent hand washing is the first line of defense against the spread of illness, as are keeping our fingernails clean, cleaning and disinfecting objects before using them, such as gym or sports equipment, toys, etc., avoiding contaminated food and/or water, washing dirty clothes, linens and towels, keeping open sores clean and covered, covering our mouth if sneezing or coughing, and not sharing personal items, such as towels, makeup, deodorant, and razors.

Name: _____

Date: _____

Worksheet #1 Matching Vocabulary

Using context clues in Information Sheet #1 and your dictionary, match the word on the left with its synonym on the right.

	Word	Synonym
_____	1. bacteria	A. bacteria
_____	2. contaminated	B. useless
_____	3. frequent	C. rebel
_____	4. germs	D. injury
_____	5. immune	E. impure
_____	6. ineffective	F. pierced
_____	7. infected	G. microorganism
_____	8. ointment	H. often
_____	9. punctured	I. defenseless
_____	10. revolt	J. contaminated
_____	11. vulnerable	K. resistant
_____	12. wound	L. salve

Name: _____

Date: _____

Handout #1: Did You Know? You Can't Ignore It – See a Doctor

Cancer accounts for nearly one-quarter of deaths in the United States, exceeded only by heart disease.

Cancer death rates are higher in men than women in every racial and ethnic group. African American men and women have higher rates of cancer mortality than their counterparts in every other racial and ethnic group. Asian American and Pacific Islander men and women have the lowest cancer death rates, about half the rate of African American men and women.

It is estimated that about 1.5 million new cases of cancer will be diagnosed in 2011. Cancers of the prostate and breast will be the most frequently diagnosed cancers in men and women, respectively, followed by lung and colorectal cancers in both men and women.

Presently, the risk of an American man developing cancer over his lifetime is one in two. The leading cancer sites are prostate, lung, and colon and rectum.

Approximately one in three women in the United States will develop cancer over her lifetime. The leading sites are breast, lung, and colon and rectum.

The 5-year relative survival rate for cancer is 69% among whites and 59% among African Americans (taking normal life expectancy into consideration).

Leukemia is the most common cancer among children ages 0-14 years. Cancer of the brain/other nervous system is the second most common cancer in both boys and girls.

You May Notice These Problems, But You Can't Ignore Them!

- Upset stomach/stomachache, chronic “acid stomach”, chronic heartburn, feeling full after a very small meal
- Unexplained weight loss
- Jaundice
- Wheezing/shortness of breath, chronic cough or chest pain
- Frequent fevers or infections
- Difficulty swallowing
- Swelling of facial features
- Moles, (colored) bumps and spots, and lumps
- Blood in urine or feces

Name: _____

Date: _____

Handout #1: Cancer Information

Cut out the strips. As you listen to the instruction read about cancer, put the strips in the correct order.

Our bodies are made up of cells that regularly divide in a process that is called mitosis. Cell division is necessary for growth, repair and elimination of cells.

A certain amount of damage to the cells happen all our lives. If the cells are not repaired or destroyed, the damaged or mutated cells then can divide at the wrong time and lead to the start of cancer.

Preventable measures can be taken such as eating a healthy diet, exercising, not smoking and avoiding chemicals and other known elements that are linked to cancer. Age and heredity are unpreventable risk factors.

When damaged cells divide out of control they can develop into tumors which are either malignant or benign.

When a tumor has reached a certain size, cancer cells can break off and spread through the blood or the lymphatic system to other parts of the body. This is called metastasis.

Once cancer has metastasized, it becomes harder to treat.

Name: _____

Date: _____

Handout #2: Breast Cancer Information

Put the following information under the correct heading.

- changes in the tissue of the breast or armpit including lumps and swelling
- need one every one to two years decided by your doctor
- menopause at a later age
- an x-ray of the breast that is a little uncomfortable
- redness, scaliness, or thickening of the nipple or breast skin
- monthly self-breast exam
- family history of breast cancer
- nipple discharge
- all women after age 40
- skin redness or puckering in the breast
- physical exams by a health professional
- menstruation before the age of 12
- have been treated for other types of cancer
- nipple retraction (turning inward)
- clinical breast exam by a health professional such as a doctor, nurse practitioner, or physician assistant

Risk Factors	Symptoms of Cancer

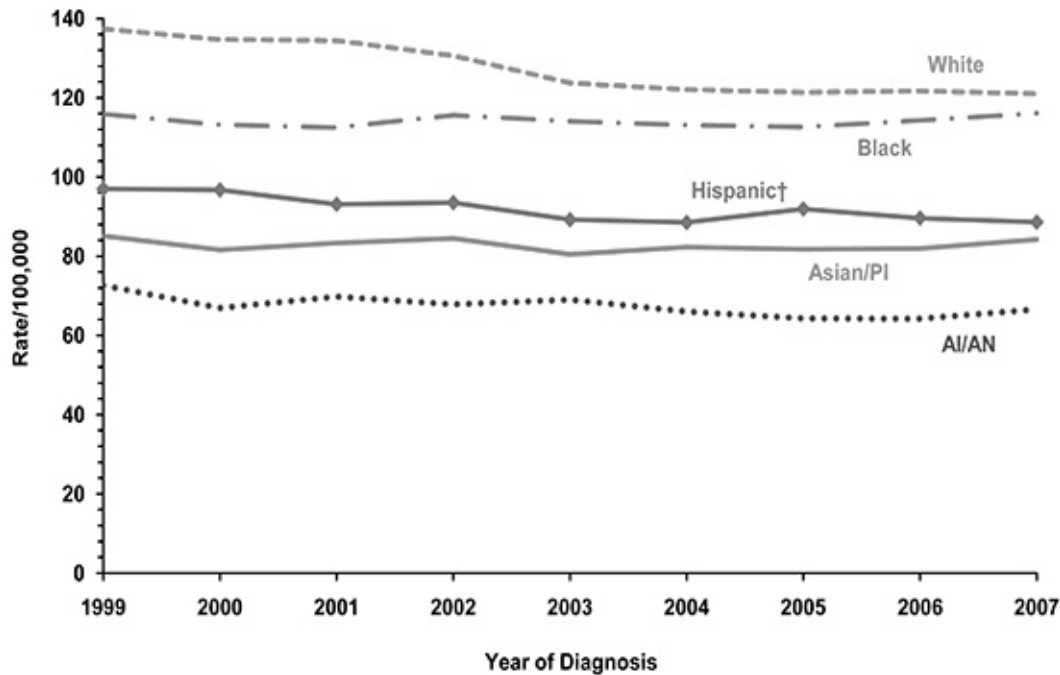
Mammograms	Types of Breast Cancer Screenings

Name: _____

Date: _____

Handout #3: Breast Cancer Rates by Race and Ethnicity

A Graph to Show: Female Breast Cancer Incidence Rates by Race and Ethnicity, U.S., 1999–2007 <http://www.cdc.gov/cancer/breast/statistics/race.htm>



List the groups of people in this graphic report.

“Read” the graph to find out the incidence rate (number) of each group in 1999, the beginning of the report and then in 2007, the end of this report. Write these numbers right on the graph lines for each group. Rank the group with the highest incidence rate #1 and the other groups with lesser numbers.

For each group of people tell if the incidence rate increased or decreased. You can write these words on the graph lines at the end for each group.

Now here is where you need to think about culture. You need to think about the way of life of a group of people, not the way of life of every single person in the group, but the way of life for the group as a “culture”.

- From what you know about “risk factors” for breast cancer, and from what you can say about culture, why might some of the incidence rates have increased or decreased? Record your notes to discuss later.
- From what you know about health insurance and the economy, what are some reasons why some incidence rates have increased or decreased? Record your notes to discuss later.

Name: _____

Date: _____

Handout #1: Colon Cancer – We Have to Talk About It

Check off any items that apply to you. If you have checked off any risk factors or symptoms, now is the time to make an appointment with your primary care doctor or a gastroenterologist. This is for your use only.

Risk Factors

- 1. Are you 50 years old or older? *While people of any age are at risk of getting colorectal cancer, a person above the age of 50 is of greater risk.*
- 2. Do you eat a diet that is high in fat? *It has been found that countries where fat consumption, especially animal fat, is high have higher rates of cancer than those countries where the diet is high in fiber intake, green vegetables and whole grains and low in fat intake.*
- 3. Have you had a history of colorectal polyps? *These are abnormal growth tissue on the inside of the colon or rectum. Overtime these polyps can sustain further damage which can lead to cancer.*
- 4. Do you have a family history of polyps or cancer? *If someone in your family has had colon cancer, it is best that you are screened, since due to certain environmental factors and genetic susceptibility, your chances of acquiring the disease increase.*
- 5. Do you have a history of cancer? *Even if your previous incidence of colon cancer was completely removed, you have a higher risk of developing new cancer in other parts of the colon or rectum.*
- 6. Have you had a history of bowel diseases? *If you have had a chronic inflammatory bowel disease (IBD) like ulcerative colitis or Crohn's disease over a long period of time, these diseases can increase the chances of developing colon cancer due to prolonged inflammation of the colon.*
- 7. Are you obese or do you not exercise? *If you are obese or lead a very inactive life, these may increase the risk of developing colon cancer.*
- 8. Do you smoke? *It has been shown that smokers have a 30 – 40% greater risk of getting colon cancer than non-smokers.*

Symptoms

- 9. Constipation, diarrhea
- 10. Thin stool
- 11. Stomach cramps, stomach pain
- 13. Blood in the stool
- 14. Feeling the need to have a bowel movement but are unable to do so
- 15. Anemia
- 16. Vomiting and gas
- 17. Rectal bleeding
- 18. Fatigue even though you have had adequate sleep

Name: _____

Date: _____

Handout #2: Say High Fiber (High Five) to Diet! Goodbye to Fats!

Fiber protects against colon cancers like this:

- Insoluble fiber from foods adds bulk to stools and moves them through the digestive system swiftly, reducing the contact time with potential toxins in the colon.
- A bulky stool high in water can also dilute potential carcinogens.
- Fiber can also discourage growth of harmful bacteria and encourage healthy bacteria in the colon.

Experts who examined studies concluded that the evidence on fiber and colon cancer, while mixed, is strong enough to make recommendations. Foods high in fiber, not necessarily the fiber itself, can lower risk for colorectal cancer.

A plant-based diet rich in fruits, non-starchy vegetables, legumes, and whole grains is associated with a lower risk of a number of the most common cancers – colorectal, stomach, mouth, pharynx, larynx, and esophageal. (www.webmd.com)

Diet recommendations for Best Health (and a Healthy Colon)

Eat a diet that is mostly plant-based.

Use the new American plate model:

- 2/3 of your plate with plants - foods such as fruits, vegetables, whole grains, legumes, and nuts
- 1/3 with lean or low-fat animal products
- Limit red meat to 18 ounces per week
- Avoid processed meats

With these recommendations in mind, plan a real day's menus and food selections for you to be healthy and to prevent colon cancer. You may have to check out some websites and other materials to find more specific information on foods that would do the job for you. Go to the USDA Food Pyramid for guidance on food portions, <http://www.choosemyplate.gov> www.myramid.gov

Additional Resources to look up information about colon cancer or colorectal cancer:

American Cancer Society www.cancer.org

Web MD www.webmd.com

Mayo Clinic www.mayoclinic.org

National Institute of Health <http://www.nih.gov/>

Name: _____

Date: _____

Handout #1: Skin Cancer Is...

Detection of Skin Cancer

No one has perfectly even-colored skin. There is no need to panic because most blemishes are NOT cancerous and WILL NOT become cancerous. Awareness and information are keys to early detection and prevention.

There are a few ‘hallmarks’ that distinguish normal skin blemishes from conditions that could be cancerous. Think: the acronym ABCDE.

- A asymmetry - one half doesn’t look like the other half
- B border - irregular, ragged or blurred edges
- C color - a mixture of colors or marks that change color
- D diameter - a growth more than 6 millimeters
- E evolution - changes in shape, size or color

Not all skin markings with one or more of these characteristics are cancerous. If there are any doubts you should be examined by a dermatologist.

Types of Skin Cancer

Basal cell carcinoma

- Most common form of skin cancer
- Easily detected and generally successfully treated
- Frequently develops in individuals of light complexion who have had significant exposure to sunlight

Squamous cell carcinoma

- Second most common skin cancer
- Frequently found in Caucasians and those with fair complexion
- Considered “more aggressive” than basal cell carcinoma, although they are both highly treatable when detected early

Malignant melanoma

- Has highest death rate of all skin cancers, responsible for 75% of deaths from skin cancer
- Rarest form of skin cancer

Did you know this information? What did you find out new?

Name: _____

Date: _____

Handout #2: Cancer Risk

As you read the press release from the World Health Organization (WHO) insert the correct missing words from the lists on the right.

Sunbed Cancer Risk	
<p>A World Health Organization (WHO) press release has warned _____ the use of sunbeds, highlighting the risks they pose of developing deadly skin cancers. Young people who get _____ from exposure to ultraviolet will have a greater risk of developing melanoma, the most dangerous form of skin cancer, later in life. Research proves there is a _____ link between the use of sunbeds and cancer. The press release warns that "some sunbeds have the _____ to emit levels of ultraviolet (UV) radiation many times stronger than the mid-day summer sun". Despite this little-known fact, sunbeds remain very popular with young people, especially women. People have become obsessed with getting or maintaining a sun tan, which has become a very powerful _____ statement.</p>	<p><i>against</i> <i>capacity</i> <i>burned</i> <i>fashion</i> <i>direct</i></p>
<p>The WHO offers some scary _____ for sun and sunbed worshippers. It estimates there to be "132,000 cases of malignant melanoma ... annually, and an estimated 66, 000 deaths from malignant melanoma and other skin cancers." It says fairest-skinned people, where the sun tanning _____ is strongest, are most at risk: Australians, New Zealanders, North Americans and northern Europeans. Other very real dangers include eye damage; premature skin _____ (wrinkles); and a reduction in the effectiveness of the immune system, which can lead to a greater risk of _____ diseases. The dangers are in fact so great that the WHO Assistant Director-General responsible for environmental health, Dr Kerstin Leitner, has urged governments "to adopt stricter controls on the usage of sunbeds". She recommends their use "only in very rare and _____ cases ... under qualified medical supervision in an approved medical clinic".</p>	<p><i>infectious</i> <i>statistics</i> <i>ageing</i> <i>specific</i> <i>culture</i></p>

Name: _____

Date: _____

Handout #3: Prevention – Sun Savvy Survey

Answer the following questions to see how sun savvy you are. Check yes or no.

	YES	NO
1. Do you work or "play" outside between 10 a.m. and 4 p.m. without a hat?		
2. Do you work or "play" outside between 10 a.m. and 4 p.m. without protective clothes?		
3. Do you work or "play" outside between 10 a.m. and 4 p.m. without sunglasses?		
4. Do you work or "play" outside between 10 a.m. and 4 p.m. without applying a sunscreen that has a SPF of 30 or more?		
5. Do you use, or have you in the past used sunlamps or a tanning salon or a sunbed?		
6. Do you have red, blonde, or light brown hair?		
7. Do you have a fair complexion that burns easily?		
8. After spending about 1 hour in the sun, do you burn and/or blister?		
9. Do you have blue, green, or hazel eyes?		
10. Did you experience a severe, blistering sunburn before the age of 18?		
11. Did a family member have skin cancer or a history in your family of melanoma?		
12. Has it been more than 6 months since you last performed a self examination of your body for changes on your skin?		

There is a direct relation between the number of yes answers and the potential risk of developing skin cancer; the more yes answers, the higher your risk. All of your answers should be 'yes'. Now take the information you have learned to see what you can actively do to prevent skin cancer.

MY UNCONTROLLABLE RISK FACTORS	WHAT I AM DOING/NOT DOING TO PUT MYSELF AT RISK	POSITIVE ACTIONS I NEED TO DO

Name: _____

Date: _____

COPD

I. Symptoms

- a.
- b.
- c.
- d.
- e.
- f.
- g.

II. Causes.

- a.
- b.
- c.
- d.
- e.
- f.

III. Treatment

- a.
- b.
- c.
- d.
- e.
- f.
- g.

IV. Prevention and Reducing the Risk

- a.
- b.

Name: _____

Date: _____

Handout # 1 KWL

KWL Chart about COPD		
What I Know	What I Want to Find Out	What I have Learned

Name: _____

Date: _____

Information Sheet #1

Chronic Obstructive Pulmonary Disease (COPD)

Chronic obstructive pulmonary disease (COPD) and emphysema are common diseases of the lungs, affecting millions worldwide.

Anatomy

Our bodies require Oxygen in order to live. Otherwise, we would die quickly. The lungs allow us to fill our blood with oxygen. The air we breathe comes in close contact with the blood in the lungs. The blood then fills up with oxygen and releases unwanted carbon dioxide, CO₂.

When we breathe, the air goes through the mouth and/or nose. From there it goes to the air pipe, known as the trachea. From the trachea it goes into an increasing number of smaller tubes, called bronchial tubes. Small balloon-like sacs called alveoli are at the end of the tubes. Because the walls of the alveoli are thin, oxygen passes through into the bloodstream and allows CO₂ to go from the blood to the lungs to be exhaled.

Muscles surround the larger bronchial tubes. The inner lining of these bronchial tubes secretes special substances called mucus. The mucus helps trap dirt from the air. Mucus is continuously expelled from the lungs and if it becomes too large, it is coughed out.

Symptoms

COPD and emphysema are conditions that make breathing difficult and frequent coughing and wheezing may also be common. Because of shortness of breath, even minimal physical activities become very difficult to perform. Supplemental portable oxygen may be necessary for survival. Lung infections, weight loss and depression may become frequent.

Causes

Active or passive smoking is the major cause of COPD and emphysema. Exposure to other irritants and pollution can also harm the lungs. There are also rare genetic conditions, such as antitrypsin deficiency, that lead to an increased number in lung infections, and of course, severe lung infections can also damage the lungs.

Treatment

There is no cure for COPD. However, in cases of advanced lung damage, patients can take special measures to help decrease the symptoms. Often, humidifiers may help. An inhalant, with medication that opens up the bronchioles, may also be tried. Steroid medications such as prednisone may help decrease the inflammation and may help alleviate some of the symptoms. Chest physical therapy may be effective in improving the cough and expelling dirt from the lungs.

Antibiotics may be necessary to fight infections. Supplemental oxygen may also be necessary. Recently, some surgical procedures have been used in the treatment of these conditions. They are a last resort, and unfortunately they are not highly successful in alleviating the symptoms.

Prevention

Eliminating exposure to smoke is the most important measure. Avoiding smoking and the smoke from others is essential in preventing the lung damage associated with these diseases. Avoiding other irritants and pollutants is also important. Repairing lung damage is very difficult if the patient continues to be exposed to smoke and other pollutants. In the cases of COPD and emphysema, prevention far outweighs treatment!

Summary

Significant advances in understanding and treating these diseases have been made in recent years, but COPD and emphysema are chronic lung conditions that could potentially be fatal. The most important way people can decrease their risk of getting these diseases is to stay AWAY from smoking.

Name: _____

Date: _____

Handout # 2 COPD Vocabulary

- 1. A health problem that continues _____
- 2. Blocking a pathway _____
- 3. Has to do with the lungs _____
- 4. Lungs help to do this for you _____
- 5. The kind of doctor who specializes in lungs _____
- 6. There is not a cure _____
- 7. Sometimes used by someone with COPD, to help them breathe _____
- 8. Condition getting worse _____
- 9. Another disease of the lungs _____
- 10. Medication purchased at a drug store _____

HOW MANY WORDS DID YOU KNOW?

_____ out of 10 = _____ %

Name: _____

Date: _____

Handout #1: Air Quality Index (AQI)

Air Quality Index Levels of Health Concern	Numerical Value	Meaning
Good	0 to 50	Air quality is considered satisfactory, and air pollution poses little or no risk
Moderate	51 to 100	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups	101 to 150	Members of sensitive groups may experience health effects. The general public is not likely to be affected
Unhealthy	151 to 200	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	201 to 300	Health alert: everyone may experience more serious health effects
Hazardous	301 to 500	Health warnings of emergency conditions. The entire population is more likely to be affected.

The Clean Air Act requires the Environmental Protection Agency or EPA to set National Ambient Air Quality Standards for six common air pollutants. These commonly found air pollutants (also known as “criteria pollutants”) are found all over the United States. They are particle pollution (often referred to as particulate matter), ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead. These pollutants can harm your health and the environment, and cause property damage. Of the six pollutants, particle pollution and ground-level ozone are the most widespread health threats. EPA calls these pollutants “criteria” air pollutants because it regulates them by developing human health-based and/or environmentally-based criteria (science-based guidelines) for setting permissible levels. The set of limits based on human health is called primary standards. Another set of limits intended to prevent environmental and property damage is called secondary standards.

Name: _____

Date: _____

Handout #2: A Letter - Format

Your address

Date

Address of the people to whom you are writing

Greeting,

Body (sentences in paragraphs)

Closing,

Signature (with pen, in cursive writing)

Name: _____

Date: _____

Handout # 1: Mix 'n' Match

Pneumonia is a	lung infection.
Pneumonia ranks in the top 10	leading causes of deaths in the United States.
Pneumonia means	inflammation of one or both lungs.
At first pneumonia may seem	like a cold
You may feel	fevered and have chills at the same time.
A persistent cough	might have you spitting up blood, or mucus, colored green or yellow.
Chest pain and shortness of breath	could accompany the other signs of pneumonia.
Pneumonia is caused by	bacteria, viruses, or fungi.
Antibiotics or anti-fungal treatments may be prescribed,	depending on the type of pneumonia is found through a blood test.
Rest, drinking plenty of fluids, and taking NSAIDS is	a basic home treatment to help alleviate the symptoms of pneumonia.
If your airway is too inflamed	oxygen may be administered if you are hospitalized.
Admission to the hospital	may be the only way to treat your case of pneumonia.
Do not smoke;	tobacco damages your lungs' ability to ward off infection.
Wash hands frequently,	especially after blowing your nose, going to the bathroom, diapering, and before preparing and eating foods.

Name: _____

Date: _____

Handout #2 Debate of Truth - Pneumonia

MODERATORS: Your job is to read the issue to be discussed. Then you call on one person at a time to speak for their team's opinion. You go back and forth from Team 1 to Team 2 until no one else has a response to make for their side. After each issue is debated, it is up to you to give the team that best expressed the truth about pneumonia a point. This is tricky because the team may have started the debate with a statement that was not exactly truthful and ended the debate stating more truthful details about the issue than the other team. The pressure is on YOU! Listen carefully!

TEAM 1 – Your Team Believes:

ISSUE #1: You are responsible for your health.
Leo cares about his health.

ISSUE #2: Body Warning Signs
A cough and cold that goes on and on you need to see a doctor to get it checked out, because it could be something else seriously wrong.

ISSUE #3: Antibiotics Use
Antibiotics are usually prescribed for pneumonia, because pneumonia is caused by bacteria.

ISSUE #4: Reducing the Risk
You have to think about germs and infection every day and develop habits to protect yourself from getting sick.

TEAM 2 – Your Team Believes:

ISSUE #1: You are responsible for your health.
Leo should have listened to the warning signs of his body to go to the doctor much sooner.

ISSUE #2: Body Warning Signs
When you have a cold and cough you cannot get rid of it means you have pneumonia.

ISSUE #3: Antibiotics Use
Pneumonia is caused by bacteria or a virus or a fungal infection.

ISSUE #4: Reducing the Risk
It is easy to prevent getting pneumonia.

Name: _____

Date: _____

Activity #1 -

Cut the Diabetes Myths into strips and distribute to class.

1. Diabetes is not a very serious disease.

2. If you are overweight or obese, you will eventually develop type 2 diabetes.

3. Eating too much sugar causes diabetes.

4. People with diabetes should eat special diabetic foods.

5. Fruit is a healthy food. Therefore, it is ok to eat as much of it as you wish.

6. If you have diabetes, you should only eat small amounts of starchy foods, such as bread, potatoes and pasta.

7. People with diabetes can't eat sweets or chocolate.

8. You can catch diabetes from someone else.

9. People with diabetes are more likely to get colds and other illnesses.

10. If you have type 2 diabetes and your doctor says you need to start using insulin, it means you're failing to take care of your diabetes properly.

Name: _____

Date: _____

Cut out the myth with the fact.

1. Myth: Diabetes is not a very serious disease.

Fact: Diabetes causes more deaths a year than breast cancer and AIDS combined. Two out of three people with diabetes die from heart disease or stroke.

2. Myth: If you are overweight or obese, you will eventually develop type 2 diabetes.

Fact: Being overweight is a risk factor for developing this disease, but other risk factors such as family history, ethnicity and age also play a role. Unfortunately, too many people disregard the other risk factors for diabetes and think that weight is the only risk factor for type 2 diabetes. Most overweight people never develop type 2 diabetes, and many people with type 2 diabetes are at a normal weight or only moderately overweight.

3. Myth: Eating too much sugar causes diabetes.

Fact: No, it does not. Type 1 diabetes is caused by genetics and unknown factors that trigger the onset of the disease; type 2 diabetes is caused by genetics and lifestyle factors. Being overweight does increase your risk for developing type 2 diabetes, and a diet high in calories, whether from sugar or from fat, can contribute to weight gain. If you have a history of diabetes in your family, eating a healthy meal plan and regular exercise are recommended to manage your weight.

4. Myth: People with diabetes should eat special diabetic foods.

Fact: A healthy meal plan for people with diabetes is generally the same as a healthy diet for anyone – low in fat (especially saturated and trans fat), moderate in salt and sugar, with meals based on whole grain foods, vegetables and fruit. Diabetic and “dietetic” foods generally offer no special benefit. Most of them still raise blood glucose levels, are usually more expensive, and can also have a laxative effect if they contain sugar alcohols.

5. Myth: Fruit is a healthy food. Therefore, it is ok to eat as much of it as you wish.

Fact: Fruit is a healthy food. It contains fiber and lots of vitamins and minerals. Because fruits contain carbohydrates, they need to be included in your meal plan. Talk to your dietitian about the amount, frequency and types of fruits you should eat.

6. Myth: If you have diabetes, you should only eat small amounts of starchy foods, such as bread, potatoes and pasta.

Fact: Starchy foods are part of a healthy meal plan. What is important is the portion size. Whole grain breads, cereals, pasta, rice and starchy vegetables like potatoes, yams, peas and corn can be included in your meals and snacks. The key is portions. For most people with diabetes, having 3-4 servings of carbohydrate-containing foods is about right. Whole grain starchy foods are also a good source of fiber, which helps keep your gut healthy.

7. Myth: People with diabetes can't eat sweets or chocolate.

Fact: If eaten as part of a healthy meal plan, or combined with exercise, sweets and desserts can be eaten by people with diabetes. They are no more “off limits” to people with diabetes than they are to people without diabetes.

8. Myth: You can catch diabetes from someone else.

Fact: No. Although we don't know exactly why some people develop diabetes, we know diabetes is not contagious. It can't be caught like a cold or flu. There seems to be some genetic link in diabetes, particularly type 2 diabetes. Lifestyle factors also play a part.

9. Myth: People with diabetes are more likely to get colds and other illnesses.

Fact: You are no more likely to get a cold or another illness if you have diabetes. However, people with diabetes are advised to get flu shots. This is because any illness can make diabetes more difficult to control, and people with diabetes who do get the flu are more likely than others to go on to develop serious complications.

10. Myth: If you have type 2 diabetes and your doctor says you need to start using insulin, it means you're failing to take care of your diabetes properly.

Fact: For most people, type 2 diabetes is a progressive disease. When first diagnosed, many people with type 2 diabetes can keep their blood glucose at a healthy level with oral medications. But over time, the body gradually produces less and less of its own insulin, and eventually oral medications may not be enough to keep blood glucose levels normal. Using insulin to get blood glucose levels to a healthy level is a good thing, not a bad one.

Name: _____

Date: _____

Information Sheet #1 - Diabetes Prevention

How to Tell if You Have Pre-diabetes

There are 57 million people in the United States who have pre-diabetes—blood glucose levels that are higher than normal but not yet high enough to be diagnosed as diabetes. Recent research has shown that some long-term damage to the body, especially the heart and circulatory system, may already be occurring during pre-diabetes. Although pre-diabetes is a serious medical condition, it can be regulated.

The good news is that the recently completed Diabetes Prevention Program (DPP) study conclusively showed that people with pre-diabetes can prevent the development of Type 2 diabetes and they may even be able to return their blood glucose levels to the normal range by making changes in their diet and increasing their level of physical activity.

While the DPP also showed that some medications may delay the development of diabetes, diet and exercise worked better. Just 30 minutes a day of moderate physical activity, coupled with a 5-10% reduction in body weight, produced a 58% reduction in diabetes. The American Diabetes Association is developing materials that will help people understand their risks for pre-diabetes and what they can do to halt the progression to diabetes.

All of the research tells us to eat right, exercise, and maintain a healthy weight to prevent the onset of Type 2 diabetes. But what happens if you have any of the symptoms listed below? The best thing to do is make an appointment with your Primary Care Physician and discuss this list in detail. Even if you don't have a regular doctor, you can get advice and help from a walk-in clinic.

Some Warning Signs of Type 2 Diabetes Include:

- Extreme and frequent thirst
- Frequent urination
- Excessive hunger
- Low energy
- Light headedness
- Tingling or numbness in the extremities
- Unexplained weight loss
- Blurred vision
- Dry, itchy skin
- Bruises & cuts that take a long time to heal
- Irritability

Risk Factors for Young People

- Family history
- Being over-weight
- High triglycerides
- Low HDL cholesterol
- High blood pressure

Name: _____

Date: _____

How a Diabetes Diet Protects Your Health

Healthy food can help prevent diabetes complications.

If you have diabetes, a healthy diet does more than just keep your blood sugar under control. A good “diabetes’ diet can also help prevent or delay complications such as nerve related pain, heart disease, or foot problems. Experts say that the same healthy diet recommended for those without diabetes is equally beneficial those with diabetes. Your meal plan may need to be tailored to target specific needs such as lowering your cholesterol and controlling your blood pressure, but the general concepts of healthy eating apply to each of us, diabetic or non diabetic.

For diabetes, caution is encouraged with concentrated sugars, such as juices, candies, and cake. Remember to consult with your doctor before starting any diet plan and be aware that there is no such thing a “the Diet”, but – if there was – it would suggest that we follow a diet that is:

- Lower in calories
- High in complex carbohydrates (vegetables, fruits, beans, and whole grains)
- High in mono and polyunsaturated fats (olive oil and canola oil)

How much should you have of each type of food? The American Diabetes Association (ADA) suggests that people with diabetes eat mostly high fiber complex carbohydrates, limit protein to 20% of total daily calories, and limit saturated fats to less than 7% of daily calories. The exception is for diabetics who are over-weight. It is suggested that they eat fewer carbohydrates and slightly more protein.

Because watching carbohydrates is one key to the management of blood sugar, people with diabetes should eat about the same amount of carbohydrates at every meal; this helps to manage the blood sugar.

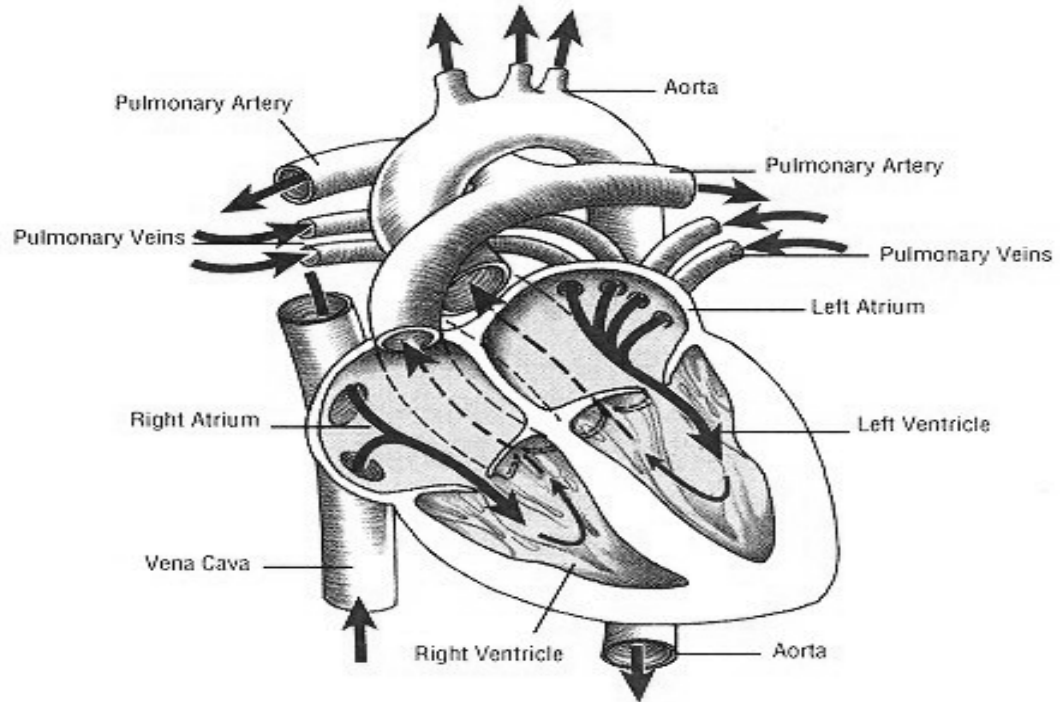
The Plate Method for Carbohydrates is a simple way to count carbohydrates and control portion sizes. Visualize a line dividing your plate in half. Then divide one half into equal portions.

- Fill the largest section (half of your plate) with non-starchy vegetables such as spinach, carrots, or green beans.
- Fill one of the two smaller sections (one quarter of your plate) with starchy foods such as whole grain breads, potato, or cooked cereal.
- Fill the last quarter of your plate with meat (protein) or meat substitutes.

Name: _____

Date: _____

Handout #1: Our Heart



How does our heart work? The heart is actually a muscle that works like a pump distributing blood throughout the body. The heart has four chambers. The two at the top are the left and right atria and the two at the bottom are the left and right ventricles. The right side pumps blood into the lungs and the left side pumps blood into the organs and tissues in your body. Blood vessels carry blood to and from all areas of your body.

Your blood carries the oxygen and nutrients that your organs need to work normally. Blood also carries carbon dioxide, a waste product, to your lungs to be passed out of your body and into the air. Special blood vessels attached to the outside of the heart, called coronary arteries, supply the heart with oxygen. Three major arteries and a number of smaller vessels are designed to perform this function.

Answer the following questions:

1. What is a heart attack?
2. What are some symptoms of having a heart attack?
3. When should 911 be called?

Name: _____

Date: _____

Handout #3: I Love Exercising My Heart / Thanks to Others Who Love My Heart

Choose one:

A. I Love Exercising My Heart

Research the kinds of exercise programs that are suggested for people who have had heart attacks. Find out what key factors are important versus an exercise program for anyone who did not have a heart attack. Write about the number of exercises or activities, the amount of time, and how to be safe. How should a person who has had a heart attack monitor his/her progress?

Make your notes into a brochure you might find in a doctor's office. Keep your information simple, direct and in outline form. Check your writing for proper grammar and spelling. Add some visuals and perhaps some color.

B. Thanks to Others Who Love My Heart

There are many different professionals with whom we may come into contact when we have a heart attack. Research the titles of these professionals and define their area of specialty.

Make your notes into a poster that could be used in a doctor's office to be informative for patients who may be confused about their healthcare process.

Name: _____

Date: _____

Handout #1: Are You at Risk?

Some factors, such as age, family history, and gender, are things you cannot change. The good news is there are some factors over which you do have control.

Knowing what your “risk factors” are can help determine what lifestyle changes need to be made to help prevent heart disease. “Risk factors” is a term for the traits or habits that make a person more likely to get a disease. The more risk factors you have, the greater your risk for heart disease and stroke. Check what your risks are.

- high blood pressure – the silent killer
- high cholesterol – like rust in a pipe
- physical inactivity – couch potato
- cigarette smoking – puts other people around you at risk too
- diabetes – high blood sugar
- overweight – extra fat is stored in the body

“Now that you know the risks, can you figure out some of the ways to decrease your risks? List them.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Name: _____

Date: _____

Handout #4: Tough Choices – Persuasive Thinking

A. Studies show that people who smoke, overeat, and do not exercise are more likely to have heart disease. If this is so, should health insurance companies be allowed to charge more or deny coverage for people who have this kind of lifestyle? If you were in charge of setting the rules and laws that cover this situation, what would you do?

B. Explain that there are approximately 4,000 people waiting for a heart transplant and that there are not enough hearts available for all these patients. Ask if you were in charge of making the decision to give someone a heart transplant, how would you decide who would receive the heart transplant.

Tell students that these two patients are now on the donor waiting list because there are no other alternative treatments available other than a heart transplant. Tell the students they will now need to decide who will receive the transplant that is available at this moment.

Patient: Fred

Age: 38

Time on Waiting List: 3 months

Details:

Viral infection that damaged the heart

Able to walk around home

Life expectancy 1 year

Married, two small children

Patient: Carol

Age: 42

Time on Waiting List: 7 months

Details:

Hospitalized for 3 months due to coronary artery disease

Bed rest only

Life expectancy 1 year

Divorced, one teenager

Decide if some of the follow factors should be considered:

- Do they have insurance? Do they have other money to cover the expenses?
- What is their job? (accountant compared to a race car driver)
- Are they “important”, “famous”?
- How did they live their life before being diagnosed with heart disease? Did they have a healthy life style?

Add other factors that should be considered in order to make a decision as to who they would choose to receive the transplant.

Discuss and debate 1 of these issues with some other students. Write a persuasive essay to support your decision.

Name: _____

Date: _____

Handout #1: Symptoms, Questions and Action

Symptom	Question	Action
Trouble urinating	What would you think? What would you do first? When would you go to the doctor?	
Blood in your urine	What would you think? What would you do first? When would you go to the doctor?	
Swelling of hands and/or feet	What would you think? What would you do first? When would you go to the doctor?	
Fatigue	What would you think? What would you do first? When would you go to the doctor?	
Skin rash/itching	What would you think? What would you do first? When would you go to the doctor?	
Metallic taste in mouth	What would you think? What would you do first? When would you go to the doctor?	
Nausea and Vomiting	What would you think? What would you do first? When would you go to the doctor?	
Shortness of breath	What would you think? What would you do first? When would you go to the doctor?	
Feeling cold	What would you think? What would you do first? When would you go to the doctor?	
Dizziness and trouble concentrating	What would you think? What would you do first? When would you go to the doctor?	

Name: _____

Date: _____

Handout #2: Renal Disease

Function: Kidneys filter waste, such as drugs and toxins and excess water out of our bodies. Kidneys keep the proper balance of minerals in the blood, and they make hormones that keep blood and bones healthy. Kidneys help maintain healthy blood pressure. Because the kidneys are so important to our overall health, when something is wrong, the symptoms can be so varied.

Your Renal System – Do You Know Its Parts? Do You Know Its Function?

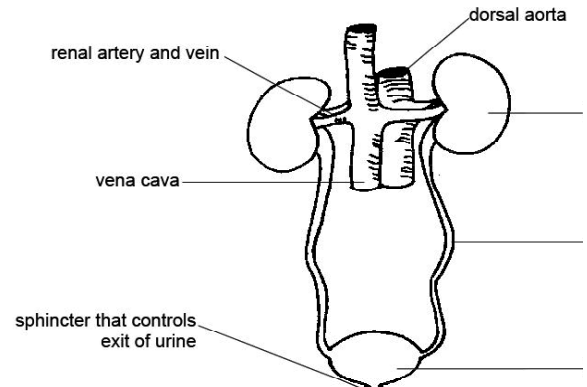
Looking at the drawing, label the following:

2 kidneys

2 ureters

urethra

bladder



The kidneys are connected to the urinary bladder by tubes called the ureters. Urine is stored in the urinary bladder until the bladder is emptied by urinating. The bladder is connected to the outside of the body by another tube-like structure called the urethra.

Causes: Diabetes and having high blood pressure are some of the causes of renal disease. Heavy blood loss from an injury, like a punch or gunshot wound, a bad infection, or dehydration can also harm the kidneys. Some medications have serious, long-term effects on the kidneys as well, including taking too much acetaminophen and ibuprofen regularly over a long duration of time.

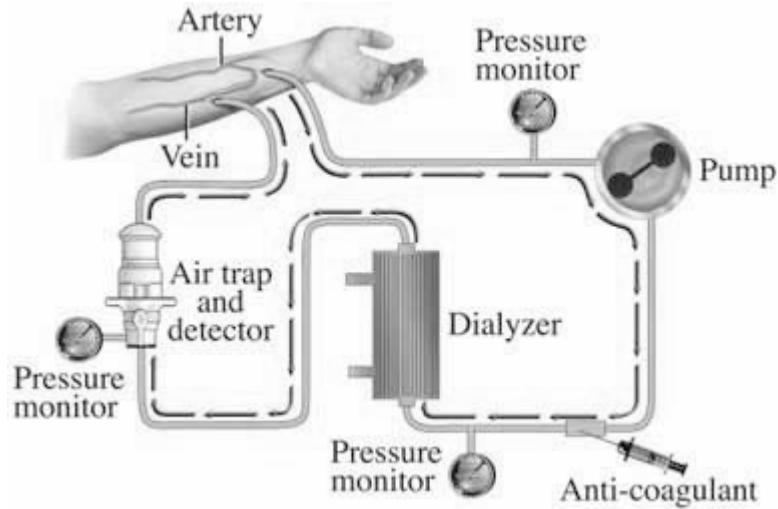
Prevention: Some suggestions that can help prevent problems with our kidneys are as follows:

- Do not overload on protein in your diet.
- Watch your blood sugar levels. Get regular blood tests to monitor your sugar levels.
- Be careful when taking over-the-counter medications, or vitamins and herbs. Consult with a doctor.
- Don't smoke.
- Exercise regularly.
- Get your urine tested during regular check-ups.
- If you have the urge to urinate, go! Don't hold it.

Treatment: There are various different treatment plans for renal disease depending on the kind of failure: acute kidney failure or chronic kidney failure. There are many low protein diets as well as a long list of life style changes such as no smoking, exercise, avoid certain pain medications, and control blood sugar levels.

Sometimes a person may need dialysis, primarily used to provide an artificial replacement for lost kidney function in people with renal failure. There are two main types of dialysis: hemodialysis and peritoneal dialysis. Both types filter your blood to rid your body of harmful wastes, extra salt and water. The dialysis process can take approximately 3 to 5 hours, and a person must go at least 3 days per week. If renal disease continues to progress, it can go through even more progressive stages until it becomes fatal.

There are many diagrams available on the internet that can be printed out or projected on large screen to show the basic idea of dialysis. Dialysis Made Simple:



Transplant

Once kidney failure progresses to the point that dialysis no longer helps, the only other option is a kidney transplant. Kidney transplantation or renal transplantation is the organ transplant of a kidney into a patient with end-stage renal disease. A kidney transplant is an operation that places a healthy kidney in the person's body. The transplanted kidney takes over the work of the two kidneys that failed, and the person no longer needs dialysis.

Answer the following questions;

1. What is the function of our kidneys?
2. What are some causes of renal disease?
3. What can a person do to help prevent renal disease?
4. What are some treatments for renal disease?
5. Why would someone need dialysis?
6. Why would someone need a kidney transplant?

Name: _____

Date: _____

Handout #3: Newsletter About Renal Disease

You have found out how important healthy kidneys are to living a healthy life. You cannot afford to ignore the signs of something wrong with your renal system. Most of the common health diseases have a website and a newsletter or magazine to provide information and support about symptoms, causes, prevention, treatment, etc. You are going to design the cover of a newsletter on the issues people should know in order to keep their kidneys healthy.

First: Give your newsletter a title.

Second: Make up the titles of related articles that will appear on the cover of your newsletter. These titles should make the reader want to open the newsletter to find out more about the topic. There should be a minimum of four titles; each title should be either an interrogative, exclamatory, declarative or imperative sentence with the correct punctuation about renal disease symptoms, causes, prevention, or treatment.

Third: Add an illustration to the cover of your newsletter. You might want to show a large kidney shape right in the middle of your cover, or find clip art, or a picture from a magazine, or add an original drawing.

Fourth: Put all components together for a final cover of a newsletter project and share the results.

Name: _____

Date: _____

Handout # 1A: Arthritis

People of all ages can have arthritis, but it occurs more often in older people. There are four symptoms that are most often associated with arthritis which are: _____, _____, _____ and _____. However, these symptoms vary among individuals. Symptoms could develop slowly, pain could be constant or could come and go, and often the pain and stiffness are more severe in the morning or after a period of inactivity. Arthritis is usually chronic, making it difficult to perform a lot of daily tasks, which can have a negative psychological impact on a person as one thinks about being always dependent.

There are different types of arthritis that can affect one or more, different joints around the body, such as rheumatoid arthritis, juvenile arthritis, fibromyalgia, psoriatic arthritis, gout, osteoporosis, Sjogren's syndrome, etc.. The most common arthritis is _____.

In order to prevent arthritis, it is recommended that a person should not be _____. It has been found that people, especially women, with excess weight have a higher frequency of osteoarthritis. Other preventative measures are to try not to abuse the joints by _____ and staying away from _____ as found with ballet dancing, being a baseball player, a construction worker, etc. It is important to make sure diet includes adequate amounts of calcium and vitamin D to protect against bone fractures.

There are several treatments that can help with arthritis, however it depends on the precise type of arthritis, which joints are affected, the severity, and how the condition affects daily activities. An accurate diagnosis increases the chances for successful treatment. Sometimes _____ for the inflammation is prescribed (Tylenol, Advil, Aleve, sleeping aids or prescription medication). The medication will not cure arthritis, but aims at reducing pain and discomfort and preventing further disability. Medications, though, can have side effects such as, _____, _____, or _____ that can cause a person to bleed excessively. Some other treatments are hot and cold compresses, as well as specific forms of exercise. Exercise is one of the best treatments for arthritis. The types of exercise that are recommended are:

- _____ – every day gently moving each joint through all possible ways it can move, keeping flexible
- strengthening – lift weights in sets of 8 to 10 repetitions every other day
- endurance – walk or do something that increases the heart rate, at least three days a week.

Word Bank:

Rheumatoid arthritis stiffness thinning the blood range of motion overweight swelling
endurance osteoarthritis bleeding strengthening avoiding injury pain Medication difficulty
moving a joint excessive repetitive motions stomach pain

Name: _____

Date: _____

Handout # 1B: Arthritis

Check how much you have learned.

1. Write the four main symptoms of arthritis:
 - a. _____
 - b. _____
 - c. _____
 - d. _____

2. Which kind of arthritis is the most common?
 - a. _____

3. What are two main things that can help prevent arthritis?
 - a. _____
 - b. _____

4. Which kind of exercise helps with flexibility?
 - a. _____

5. When should a person do this kind of exercise that helps with flexibility?
 - a. _____

6. Two side effects of some arthritis medicines are:
 - a. _____
 - b. _____

Name: _____

Date: _____

Handout #2: Finding Out More

Directions: Research and Fill in the Chart

	Osteoarthritis	Rheumatoid Arthritis	Fibromyalgia
Symptoms: What would you notice if you had this disease?			
Joints Affected: What part of your body would it affect?			
Risk Factors: What increases your likelihood of getting this disease?			
Diagnosis: How does a doctor determine what disease you have?			
Treatment: How does a doctor treat this disease?			

Name: _____

Date: _____

Handout #1: Dental Health Costs Money But Saves Money!

In Support of Michigan's Move to Restore Dental Benefits for Adults on Medicaid. Published: Saturday, November 06, 2010, 9:00 AM in The Flint Journal Retrieved from: www.mlive.com/flintjournal. By Norm Palm

Michigan's move to restore dental benefits for adults on Medicaid will not only save thousands of people from needless pain and suffering, it will also save taxpayers money.

The Michigan Dental Association applauds members of the state House and Senate, as well as Gov. Jennifer Granholm, for restoring Medicaid dental benefits in the 2011 budget, effective Oct. 1.

Unfortunately, it's a short-term fix to a long-term problem — a one-time infusion of federal money that won't be there next year. So it's not too early for newly elected lawmakers to begin thinking about where the state will find the necessary funding for this vital service in the future. Care for potentially 1 million people depends on it.

The urgent need to identify such funding is highlighted in the groundbreaking report released in August by the Michigan Dental Association's Access to Oral Health Care Work Group. The report, "A United Voice for Oral Health", focuses on the alarming state of dental health in Michigan and the need to educate both the general public and policy makers about the vital link between oral health and overall health.

Grand Rapids dentist John Vander Kolk is among the members of the work group.

Too many Michigan policy makers wrongly believe that cutting dental benefits will somehow save the state money — even when the facts prove otherwise.

In the six months following the state's 2003 cut in Medicaid adult dental benefits, dental-related hospital emergency room visits increased by more than 11 percent. Obviously, people who need oral health care don't just go away when funding is cut; they end up in expensive ERs. Even worse, if left untreated oral disease can cause other health problems like diabetes, heart disease, even cancer. The irony is that treating these conditions is much more expensive than providing basic preventive dental care.

The MDA report outlines 17 recommendations for making oral health care more accessible, including a call for Michigan to identify a source of funding to make dental care readily available to low-income children and adults. It also supports making adult dental care a mandatory Medicaid service, so state lawmakers don't target it when money is tight.

Other key findings focus on the need for:

1. Prevention services such as the Head Start Dental Home Initiative, which ensures disadvantaged children see a dentist regularly;
2. Partnerships between dentists and other health professionals, including development of an oral health curriculum for physician residency programs; and
3. Education efforts, including expanded use of social media, to educate the public and policy makers on the link between oral health and physical health.

The findings of the 30-member work group represent the thinking of the broadest group yet assembled to tackle the access issue — physicians, nurses, insurers, public health officials, dentists, dental hygienists and others. They know it will take a united effort to address the problem and that solving it begins with well-founded information: Failure to treat dental disease, which is almost entirely preventable, can trigger much more severe health problems.

In both human and fiscal terms, it simply makes good sense to provide dental care for disadvantaged children and adults in Michigan.

--- Dr. Norm Palm is an oral surgeon in Grand Rapids and chairperson of the Michigan Access to Oral Health Care Work Group, convened by the Michigan Dental Association.

Name: _____

Date: _____

Handout # 2: All Toothbrushes are NOT the Same

COMPARING TOOTHBRUSHES						
Product Name	Brush Head	Handle	Special Features	Electric	Manual	Cost
TOOTHBRUSH #1						
TOOTHBRUSH #2						
TOOTHBRUSH #3						

My recommended choice is: _____

The reason is: _____

Name: _____

Date: _____

Handout #1: “Clozing” in on Gum Disease

What is gum disease?

tissue periodontal disease gingivitis bacteria inflammation bone plaque

Gum disease is also known as _____. The early stages are called _____, and an early sign is _____ of the gums. It can lead to loss of the gum _____ that holds teeth in place, eventually leading to a loss of _____. The sticky film left on teeth that is not removed from proper cleaning is called _____. This makes the gums pull away from the teeth allowing _____ to get in. If plaque is not removed, it becomes hard and must be removed by a dentist. The buildup of bacteria can lead to loss of teeth, infection, and in rare cases – death.

What are the symptoms? How do you know if you have gum disease?

loose bad red, swollen, bleeding partial bite teeth

Gums are _____, _____, and _____.

Gums pull away from _____.

Breath is _____.

Teeth are _____.

There is a change in how your teeth _____.

There can also be a change in how your _____ dentures fit.

What can I do to prevent gum disease?

regularly once twice smoke professionally brush

Proper cleaning of teeth is important to prevent gum disease. Dentists recommend that you brush your teeth _____ a day and floss _____ a day. You should visit a dentist _____ and have your teeth _____ cleaned. Learn how to _____ your teeth the proper way and do not _____ or chew tobacco.

Name: _____

Date: _____

Handout #2: How to Clean Your Teeth

toothbrush toothpaste paper cup water mouthwash floss
and another inter-dental cleaning device

Think about these products and how you should use them to practice good dental and oral health.

Use this vocabulary to help you list the steps in order, to clean your teeth and mouth.

Imagine yourself actually doing this so that your directions are clear sentences for someone else to understand and follow.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

More steps? Continue writing steps on the back of this paper!

Finished? See if someone can actually follow your directions exactly to do the job right!

Name: _____

Date: _____

Handout #1: “Eye Q” Test

FIRST, fold your paper up on the line below the 20 questions! The statements below will give you an idea of how well you understand your eyes. Write “T” for True or “F” for False on the line next to each statement.

Grade yourself when you are finished.

1. ____ At a distance of 10” my eyes can detect an object as small as 4 thousandths (0.004) of an inch.
2. ____ My eyes can distinguish only four colors.
3. ____ My eyes can see a candle 14 miles away.
4. ____ Ten percent (10%) of what I know comes through my eyes.
5. ____ Reading in dim light can put a strain on my eyes.
6. ____ When viewing the TV, I should sit a distance equal to twice the width of the screen.
7. ____ A lack of vitamin A in my diet can cause reduced night vision.
8. ____ Dilation of the pupils allows my doctor to see a better view of the inside of my eyes.
9. ____ The best color for sunglasses is blue.
10. ____ Tears contain substances that slow down bacterial growth.
11. ____ My eyelids work much like a car’s windshield wipers.
12. ____ Sunglasses will allow me to look directly at the sun.
13. ____ Many prescriptions for eyeglasses are identical.
14. ____ Smoking can affect my vision.
15. ____ If I have 20/20 vision, I definitely do not have any eye problems.
16. ____ Air pollution affects only my lungs and breathing.
17. ____ If I am nearsighted, I see near objects more clearly than distant objects.
18. ____ If I am farsighted, I see distant objects more clearly than near objects.
19. ____ Glaucoma is a serious eye disease that can cause blindness.
20. ____ Regular eye examinations can help protect my eyes and my general health.

Check out the website of the American Optometric Association (AOA – www.aoa.org) to learn more about the statements you did not understand.

1. T 2. F 3. T 4. F 5. F 6. F 7. T 8. T 9. F 10. T 11. T 12. F 13. F 14. T 15. F 16. F 17. T 18. T 19. T 20. T

- 19-20 - I understand my eyes very well
- 17-18 - my view of my eyes is pretty clear
- 15-16 - my concept of my eyes is a little fuzzy
- 13-14 - the way I see my eyes could use a little correcting
- 12 or less - I need much more understanding about my eyes

Name: _____

Date: _____

Handout #1: Glaucoma Information

(to be cut up into topics for Information Stations, each topic can then be cut into pieces of information)

WHAT IS GLAUCOMA
Increased pressure inside the eye slowly reduces vision. Peripheral vision is lost first, often going undetected for years. Glaucoma is not just one eye disease, but a group of eye conditions resulting in optic nerve damage, which causes loss of vision.
Glaucoma is the second leading cause of blindness in the world, according to the World Health Organization.
Approximately 10% of people with glaucoma who receive proper treatment still experience loss of vision.
Sometimes called the silent thief of sight, glaucoma can damage your vision so gradually you may not notice any loss of vision until the disease is at an advanced stage.
There is no cure for glaucoma
WHAT CAUSES GLAUCOMA?
Glaucoma usually occurs when there is an increase in pressure within the eye (intraocular pressure) and is associated with optic nerve damage.
Normally, this fluid flows out of the eye through a channel. If this channel becomes blocked, fluid builds up, causing glaucoma. The direct cause of this blockage is unknown, but doctors do know that it is most often inherited, meaning it is passed from parents to children.
Less common causes of glaucoma include a blunt or chemical injury to the eye, severe eye infection, blockage of blood vessels in the eye, inflammatory conditions of the eye, and occasionally eye surgery to correct another condition.
Glaucoma usually occurs in both eyes, but it may affect each eye to a different extent.
WHO IS AT RISK?
Glaucoma most often occurs in adults over age 40, but it can also occur in young adults, children, and even infants. In African-Americans, glaucoma occurs more frequently and at an earlier age and with greater loss of vision.

You are at an increased risk of glaucoma if you:

- Are of African-American, Irish, Russian, Japanese, Hispanic, or Scandinavian descent.
- Are over age 40.
- Have a family history of glaucoma.
- Have poor vision.
- Have diabetes.
- Take corticosteroids, such as prednisone.

Older people are at a higher risk for glaucoma but babies can be born with glaucoma (approximately 1 out of every 10,000 babies born in the United States).

African-Americans in particular are susceptible at a younger age. Glaucoma is 6 to 8 times more common in African-Americans than Caucasians. African-Americans ages 45-65 are 14 to 17 times more likely to go blind from glaucoma than Caucasians with glaucoma in the same age group.

IDENTIFYING THE TYPES OF GLAUCOMA

The two main types of glaucoma are primary open-angle glaucoma (POAG), and angle-closure glaucoma.

With open angle glaucoma, the most common form, there are basically no symptoms. Usually, no pain is associated with increased eye pressure.

Secondary glaucoma refers to any case in which another disease causes the increased eye pressure, resulting in optic nerve damage and vision loss.

There are a variety of different types of glaucoma. The most common forms are:

- Primary Open-Angle Glaucoma
- Normal Tension Glaucoma
- Angle-Closure Glaucoma
- Acute Glaucoma
- Pigmentary Glaucoma
- Exfoliation Syndrome
- Trauma-Related Glaucoma
- Childhood Glaucoma

IDENTIFYING THE SYMPTOMS

Diagnosis is the first step to preserving your vision. There may be no symptoms to warn you.

With open angle glaucoma, the most common form, there are virtually no symptoms. Usually, no pain is associated with increased eye pressure.

Vision loss begins with peripheral or side vision. You may be turning your head to the side, and may not notice anything until much vision is lost. The best way to protect your sight from glaucoma is to get tested. If you have glaucoma, treatment can begin immediately.

Primary open-angle glaucoma signs and symptoms include:

- Gradual loss of peripheral vision, usually in both eyes
- Tunnel vision

Acute angle-closure glaucoma signs and symptoms include:

- Severe eye pain, maybe with nausea and vomiting
- Sudden weird vision, often in low light
- Blurred vision
- Halos around lights
- Reddening of the eye

WHAT ARE TREATMENT OPTIONS?

Glaucoma is not curable, and vision loss cannot be regained. With proper medication and/or surgery, it is possible to stop more loss of vision. Since glaucoma is a chronic condition, it must be monitored for life.

Glaucoma treatment often starts with medicated eye drops. Be sure to use the drops exactly as prescribed. Otherwise, your optic nerve damage could get even worse. If your doctor prescribes more than one type of eye drop, make sure to ask how long to wait between applications. Because some of the eye drops are absorbed into your bloodstream, you may experience side effects unrelated to your eyes.

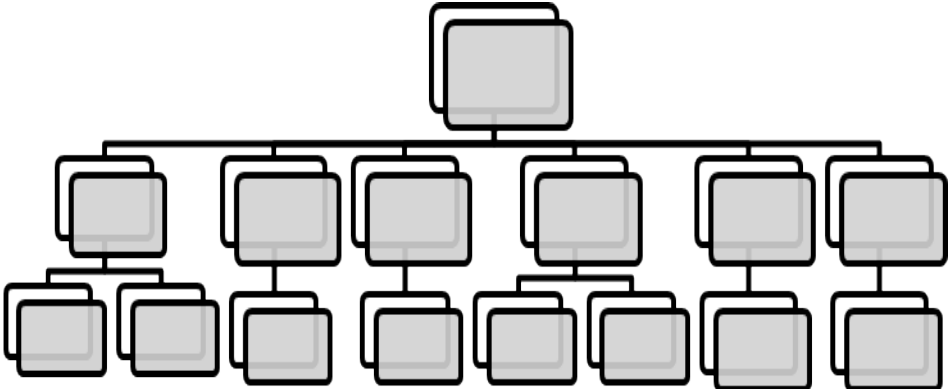
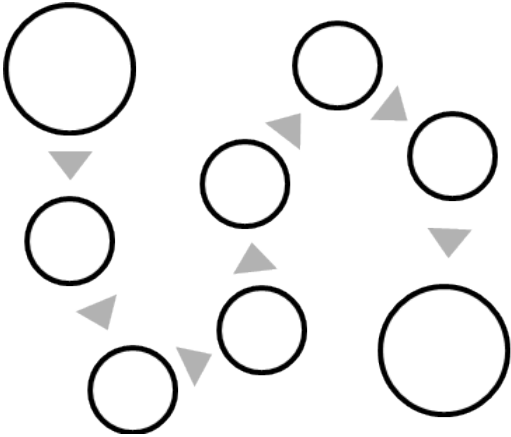
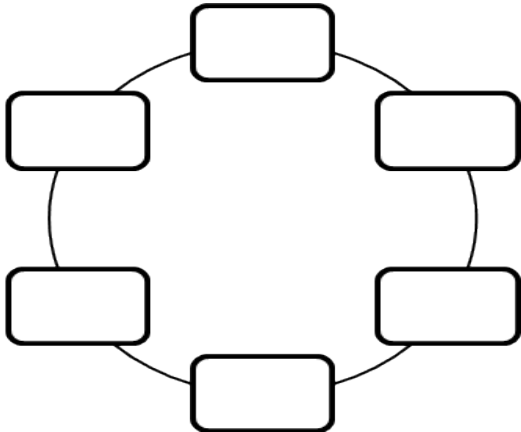
If eye drops alone don't bring your eye pressure down to the desired level, your doctor may also prescribe an oral medication.

You may need surgery to treat glaucoma.

Name: _____

Date: _____

Handout #2: Samples of Glaucoma Graphic Organizers for Notes



Name: _____

Date: _____

Handout #1: An Outline of Macular Degeneration

Sample of connecting words: for, and, nor, but, yet, so, because, before, until, since, while, if, even though, in addition, consequently, however, as result of, etc.

Macular Degeneration

(paragraph 1)

1. Macular Degeneration causes vision loss.
2. The central portion of the retina becomes damaged.
3. The central portion of the retina is important for reading and seeing color.
4. Early detection and treatment can help you avoid severe vision loss
5. Older people are at risk.
6. Young people can get it too.
7. A symptom of macular degeneration is blurry vision.
8. A symptom of macular degeneration is cloudy vision.
9. A symptom of macular degeneration is seeing a blind spot.

(paragraph 2)

1. Vision loss is frightening.
2. Vision loss is debilitating.
3. Vision loss is life-changing.
4. If you have been diagnosed with macular degeneration you should see a retina specialist.
5. You will need help.

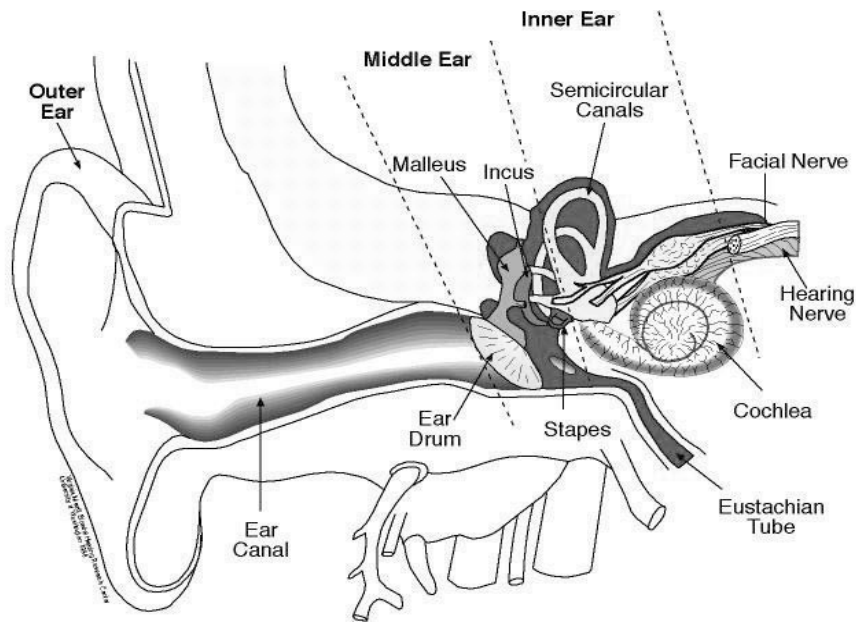
(paragraph 3)

1. Having things in your home such as large button phone may help you to make phone calls.
2. A large button TV remote would help.
3. Instead of reading a book, audio books would be nice.
4. When you have handwork or reading to do, a magnifying glass and a good light nearby are helpful.
5. It is nice to have someone to talk with and keep you company.
6. It is nice to socialize.

Name: _____

Date: _____

Handout #1: How the Ear Works



The diagram is from:

<http://www1.appstate.edu/~kms/classes/psy3203/Ear/Structure.htm>

Watch the video from You Tube on the process of how we hear.

“How the human ear works.” By Simmons

<http://www.youtube.com/watch?v=dCyz8-eAs1I&NR=1>

Describe in your own words how the ear works.

Is hearing the only way we receive communication? Explain.

Name: _____

Date: _____

Handout # 2: Ten Ways to Recognize Hearing Loss

The material on this page is for general information only and is not intended for diagnostic or treatment purposes. A doctor or other health care professional must be consulted for diagnostic information and advice regarding treatment.

This is an Excerpt from NIH Publication No. 01-4913

For more information, contact the NIDCD Information Clearinghouse.

Ask yourself the following questions. If you answer “yes” to three or more of these questions, you could have a hearing problem and you may need to have your hearing checked by a doctor.

- Do you have a problem hearing over the telephone?
- Do you have trouble following the conversation when two or more people are talking at the same time?
- Do people complain that you turn the TV volume up too high?
- Do you have to strain to understand conversation?
- Do you have trouble hearing in a noisy background?
- Do you find yourself asking people to repeat themselves?
- Do many people you talk to seem to mumble (or not speak clearly)?
- Do you misunderstand what others are saying and respond inappropriately?
- Do you have trouble understanding the speech of women and children?
- Do people get annoyed because you misunderstand what they say?

If you think that you have a hearing problem, schedule an appointment with your family doctor. In some cases, he or she can identify the problem and prescribe treatment.

Your doctor may refer you to an otolaryngologist. This doctor and surgeon has special training in problems of the ear, nose, throat, head, and neck.

An otolaryngologist will try to find out why you have a hearing loss and offer treatment options. He or she will ask you for your medical history, ask if other family members have hearing problems, do a thorough exam, and prescribe any needed tests.

Your doctor may also recommend that you visit an audiologist. An audiologist is a health professional who can identify and measure hearing loss. The audiologist will use a device called an audiometer to test your ability to hear sounds of different pitch and loudness.

