

Skills for Disease Prevention and Screening Sample Lesson Packet Overview

This packet includes sample lessons designed to address health literacy skills for chronic disease management. These sample lessons are meant to jumpstart your thinking about how to incorporate these skills into your own classroom curriculum.

Familiarize yourself with the entire packet of lessons before you decide which one to try out in your classroom. This will give you an idea of the range of content and skills addressed in the various lessons. You are encouraged to adapt the lessons to suit the needs of your students or use these lessons to help you create your own.

The packet includes the following materials:

1. Lesson Review Sheet (to be completed during Session Two)
2. Post-Teaching Reflection Sheet (to be completed after you have taught a sample lesson and before Session Three)
3. Nine Sample Lessons:
 - Lesson 1: (ABE) Learning to Live with a Chronic Disease
 - Lesson 2: (ABE) Developing Problem-Solving Skills
 - Lesson 3: (ABE) How to Manage Your Medicines
 - Lesson 4: (ABE) How to Take Your Medicines on Time
 - Lesson 5: (GED) Language for Describing Symptoms
 - Lesson 6: (GED) Using Bar Graphs to Learn about Literacy and Health Outcomes
 - Lesson 7: (ESOL) Communication between Patients and Doctors
 - Lesson 8: (ESOL) Questions to Ask Your Doctor
 - Lesson 9: (ESOL) Talking about Symptoms to Your Doctor

Notes to Teachers

Adapting the lessons for your classroom: As the lesson titles indicate, the sample lessons were designed with a particular student audience (i.e., ABE or ESOL) in mind. At the same time, you are encouraged to adapt ANY of the lessons to your own classroom context. These lesson topics are relevant to all areas of adult education, and most of the lessons provide suggestions and tips for adapting them for other adult education contexts.

Opportunities to pursue project-based inquiries: Most of the lessons lay the groundwork to pursue project-based learning activities in your classroom. Instead of working on isolated activities that focus on particular

skills, students can develop skills in the context of a project. The follow-up activities to the lessons include suggestions for several projects that students can do, such as conducting an interview with a person with a chronic disease, researching a chronic disease on the web, or creating graphs based on data the students collect themselves.

Lesson Review Sheet

~ To be completed during Session Two ~

Instructions: With your partner, choose one lesson from the Sample Lesson Packet to examine in depth. Complete the following worksheet.

Title of the Lesson: _____

Summary of the lesson: *Briefly describe what this lesson is about.*

Questions to consider

1. Will my students find the lesson topic interesting and useful? (Does this lesson address concerns raised by students in the needs assessment activity?)
2. Is this lesson appropriate for my students' skill levels?
3. In what ways does the lesson link to skills and topics I am currently addressing in my classroom?
4. How might I adapt or alter the lesson to better fit the needs of my students?

Post-Teaching Reflection Sheet

*~ To be completed after you have taught a sample lesson.
Please bring this completed worksheet with you to Session Three ~*

Instructions: After you have tried out one of the lessons from the Sample Lesson Packet (or perhaps one of your own lessons) with your students, complete the following worksheet. Use the back of this sheet, if necessary.

Title of the Lesson: _____

Date(s) lesson was taught: _____

Class Level: _____

Reflection Questions

1. How successful was the lesson? (Did you meet your teaching goals? What specific features of the lesson went well? What features did the students respond to most positively?)
2. What specific features of the lesson did not go well? (What features did the students have the most difficulty with?)
3. What adaptations (if any) did you make to the lesson for use in your classroom?
4. What might you have done differently to make the lesson more effective?

Lesson 1: (ABE) Learning to Live with a Chronic Disease

<p>Chronic Disease Management Tasks Addressed in this Lesson</p> <ul style="list-style-type: none"> • Students increase their awareness about the range of tasks involved in chronic disease management. • Students increase their understanding of possible barriers to successful management. <p>Skills Focus</p> <ul style="list-style-type: none"> • Students will develop critical thinking and comprehension skills in reading about a family's experiences with chronic disease management. <p>ABE/ESOL Level High-intermediate to advanced ABE</p> <p>Time 2 hours (Two sessions - 60 minutes each)</p> <p>Materials</p> <ul style="list-style-type: none"> • Student reading <i>Living with Asthma</i> and handouts • Blackboard or newsprint • Markers <p>Vocabulary See the list on page 2 of this lesson plan.</p>	<p>Purpose</p> <p>This interview, <i>Living with Asthma</i>,* is designed to facilitate discussion in the ABE/ESOL classroom about chronic disease management and possible barriers to successful management. Sandra Jones, a health care worker, interviews 16-year old Aron who was diagnosed with asthma when he was 7 years old. Aron shares his everyday experiences managing the disease. Sandra also interviews Aron's mother, Clela, about her experiences caring for Aron</p> <p>By reading and discussing one family's experiences managing a chronic disease, students will begin to reflect upon and analyze their own experiences and knowledge base about chronic disease management. They will have an opportunity to discuss barriers to successful chronic disease management and contemplate possible strategies to overcoming difficulties. After this lesson, teachers will be able to identify the chronic disease management concerns that their students face. This student feedback will inform teachers' subsequent lessons on the development of chronic disease management skills.</p> <p>Note to teacher: This lesson has two parts. Part One includes pre-reading activities. Part Two consists of reading, comprehension, and discussion activities.</p>
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* The interview with the asthma patient Aron and his mother Clela is based on an actual interview featured on the Colorado Health Web site at <http://www.coloradohealthsite.org/> accessed in December, 2004.

Part One: Pre-reading Activities

Steps

1. *Vocabulary Work*

Present the students with the following list of words from the interview. Ask them to work in groups to define the words. Ask students how the words might be put into categories. (Possible categories: verbs, medical terms, feelings).

affect	embarrassed	routine
attack	inhaler	shocked
“couch potato”	medications	suspect
cut back	medicine	treatment
deal with	nebulae	wheeze
diagnose	peak flow meter	worried

Teaching Note about Use of Pictures/Realia: When discussing the vocabulary, be sure to show students pictures of a nebulizer, inhaler, and a peak flow meter, or if possible, have actual items on hand to show students. Pictures of these items are provided in Handout A.

Teaching Note about Vocabulary Development: Teachers can use this vocabulary list to help students learn to use a thesaurus or learn about synonyms. For example, after students define “wheeze,” ask them to brainstorm all the ways they can say “breathe.” Record all suggestions. After the brainstorm, ask the students to go back and write a short descriptive phrase explaining each word. One possible list might look like this:

<i>pant</i>	To breathe quickly in short gasps, usually after you have done something physically demanding
<i>puff</i>	To breathe forcefully and quickly, e.g., the big bad wolf huffed and puffed; a short, sudden burst of air, e.g., a puff of smoke
<i>sigh</i>	To breathe out in a long deep breath usually because you are tired or relieved.
<i>snore</i>	To breathe noisily while you sleep
<i>wheeze</i>	To make a harsh whistling sound when breathing, often when a person has difficulty breathing
<i>inhale</i>	To breathe in
<i>exhale</i>	To breathe out

To reinforce word meanings, ask students to write sentences using each synonym.

2. ***Tapping prior knowledge about asthma***

Write the word “asthma” on the board. Invite the students to generate as many words as possible that relate to the target word, “asthma.” You can say to the students, “Tell me some things that come to mind when you think of the word “asthma.” As students brainstorm, record all responses on the chalkboard. (Possible responses: attack, tough to breathe, inhaler, lungs, coughing...) After the students have finished brainstorming, ask the students how the responses could be placed into categories. Ask the students to assign labels to the categories and add any extra information to each category. (Possible categories: Medicines for treating asthma, Signs that you have asthma, Signs of an asthma attack...).

3. ***Preparing to read***

Distribute the interview, *Living with Asthma*, to each student. Explain to the students:

You are going to read an interview between a health care worker, Sandra McCray, and a teenager named Aron who has asthma. Sandra also interviews Aron’s mother, Clela, about her experiences caring for Aron. Can you imagine how Aron would feel when he first learned he had asthma? How might his mother feel? What kind of difficulties dealing with asthma might you expect Aron and his mother to mention in the interview?

Ask the students to share their responses. Record their ideas on the board.

Part Two: Reading and Discussion

Steps

1. ***Reading the interview***

Depending on your class, the students may be able to read the interview silently by themselves. If students read silently, be sure to read the interview out loud as well. Assign different students to read the different roles. In addition, you may wish to do a model reading. As students read, encourage them to think about their predictions about Aron’s and his mother’s experiences and challenges dealing with asthma. Encourage them to read for information which confirms or counters their predictions.

2. ***After reading the interview - Comprehension and discussion***

Use the following questions to check the students’ comprehension and interpretation of the interview. Note that these questions are designed to prompt the students to extend their analysis of Aron and Clela’s experiences dealing with asthma to their own experiences or to that of people they know who have a chronic diseases. (Questions are listed on Handout B.)

- In your own words, describe how Aron and Clela found out that Aron had asthma.
- Make a list of the different feelings Aron and his mother have experienced since he learned he has asthma. What made Aron and his mother feel this way? (Note to

teachers: Encourage the students to make two columns in their notebooks, one column for the various feelings expressed by Aron and his mother and one column for the reason the person felt that particular way. For example:

Aron's feelings	Why Aron felt this way
Aron felt scared	He found out he had asthma. He also had to start taking medicines.
Aron sometimes felt embarrassed.	He had to use an inhaler at school.

Clela's feelings	Why Clela felt this way
Clela felt shocked.	She learned Aron had asthma.
Clela was worried.	She didn't know when another attack would happen.

- Read the interview again and make a list of all the things Aron needs to do on a regular basis to take care of himself because he has asthma. Work in pairs or groups to generate a complete list. (Note to teachers: You may want to provide students with highlighters and ask them to highlight all the phrases that describe the different things Aron does to manage his asthma.) Be sure to write the complete list on the board.

For example:

- *Takes medicine in the morning*
 - *Takes medicine whenever he needs it during the day*
 - *Takes a pill before he goes to bed*
 - *Uses a nebulizer*
 - *Uses an inhaler*
- What advice does Clela offer parents whose children have asthma?
 - Make a list of the problems and concerns Clela faces in caring for Aron. What things did she need to learn to help care for Aron?

For example:

- She didn't understand many new words, such as nebulizer and inhaler, plus the drug names.
- She had to learn how to use a peak flow meter and also teach Aron how to use it.
- She needed to be able to fill out school forms to permit Aron to carry an inhaler.

- She needed to be able to explain to Aron about how well his lungs were working.
 - She needed to be able to talk to Aron’s doctor about how well his lungs were working.
- Think about your own experiences managing a chronic disease, or think about what you know about chronic diseases based on other people’s experiences.
 - How are your experiences (or that of someone you know) similar to or different from Aron and Clela’s experiences? (Note to teachers: Be sure to record the students’ responses.)

Follow-up Activities

A) Interview a person who has a chronic disease

Find someone who is willing to be interviewed about his or her experiences with a chronic disease. Ask the following questions:

- *What chronic disease do you have?*
- *How did you find out you had this chronic disease?*
- *How did you feel when you first learned you had this disease?*
- *What kind of treatments do you need to take?*
- *How has this disease affected your everyday life?*
- *What advice would you give to someone who just found out they have this disease?*

Ask students to take notes on the person’s responses. Students can share their information in the next class or write up their notes in an expository essay.

B) Create a class resource file

Gather pamphlets, web resources, and other materials related to various chronic diseases. Ask the students to rate the clarity and usefulness of the materials. Build a classroom file on chronic diseases.

ESOL Teaching Tip

You may wish to spend time talking about asthma with ESOL students so they understand: (1) that it is a common chronic illness in the U.S.; and (2) that, in general, all asthma patients need to take medicine, monitor their breathing, and see a doctor on a regular basis. If necessary, allow time for the students to talk about asthma in their native languages to ensure that everyone understands the overall focus of the interview before reading.

You may use the interview material in this lesson in a role-play activity with ESOL students. After students have had an opportunity to read and discuss the text, challenge them to act out the interview, trying not to look back at the text. In carrying out a role-play, students should feel free to paraphrase the lines in the interview as long as the meaning remains the same. (Accurate paraphrases will be a sign that the students have

understood the meaning of the text.) This role-play activity can prepare the students to conduct their own interview with someone who has a chronic disease (see Follow-up Activities).

Technology Tips

For students who are learning more about asthma, here are some useful Web sites:

- **How is Asthma Diagnosed** (from the National Institutes of Health) at http://www.nhlbi.nih.gov/health/dci/Diseases/Asthma/Asthma_Diagnosis.html
- **Healthy Roads Media**. Particularly useful for ESOL students. Site provides free audio, written, and multimedia health education materials in various languages on various chronic diseases, including asthma at <http://www.healthyroadsmedia.org/>.

Living with Asthma: An interview with a mother and son

About the reading: This is an interview with Aron, a 16-year old boy with asthma, and Clela, his mother. The interviewer is Sandra McCray, Executive Director of Colorado HealthSite, an electronic information service for people with chronic illnesses. The interview was conducted on November 6, 1999. *

Interview with Aron

Sandra: Ok, Aron, let's begin with you. How old were you when you were diagnosed with asthma?

Aron: I was about 7 years old, I was living in Wichita. I was at gymnastics camp, and I started to wheeze and had a hard time breathing, so I called my mom. She called the doctor and came and picked me up. There were other times when I was wheezing and having problems breathing. We went to doctor a lot and then after a few months, the doctor told me I had asthma.

Sandra: Aron, how did you feel when you learned that you had asthma?

Aron: At first, I was kind of scared, but the doctor was really nice and said that by taking the right medications and following directions, I would be fine. Plus, I knew my mom was worried about me.

Sandra: What kind of treatments did they give you to help with your asthma?

Aron: They gave me a nebulizer and some different inhalers, plus some pills I need to take every day.

Sandra: How did it feel to begin your treatments?

Aron: At first it was scary for both mom and me. My mom took charge of things in the beginning and as I got older and the treatment became more routine, I started taking my medication and using my inhaler on my own. Now, I pretty much do it myself.

Sandra: I once interviewed an asthma doctor, and he said that one of the problems with kids who have asthma is that they don't want to take their inhalers to school. They don't want to take medications in front of other kids and they don't want their friends to know

* The interview with the asthma patient Aron and his mother Clela is based on an actual interview featured on the Colorado Health Web site at <http://www.coloradohealthsite.org/>.

they have asthma, because they are embarrassed and feel different. Did any of this happen to you?

Aron: In the beginning, I was embarrassed and was afraid that people would make fun of me. But pretty soon, I found out that some other kids that I knew had asthma, too, so I didn't feel so strange anymore.

Sandra: How has asthma affected your life at school?

Aron: When I was younger, I had some problems and had to miss a lot of school. That made it hard to get good grades. But now, I'm doing better in school. I feel pretty normal. I don't miss school all the time, and I play soccer. I just use one of my inhalers before I go out to play – it helps me breathe better. My friends hang on to the inhaler for me, in case I need it. The only problem I have sometimes is that the coach wants us to do some long training runs – I have a hard time breathing for those, but I do okay in the games.

Sandra: So, do you feel like your asthma is under control now?

Aron: Every day, I take a medicine when I get up in the morning. I take a different medicine sometimes, like when I am feeling symptoms of asthma or before I do sports or exercise. At night I take a pill which helps me breathe better and also helps me sleep without waking up. The medicine I am taking now works really well, so I'm doing alright.

Interview with Clela

Sandra: Clela, I'd like you to tell us what it's like to have a child with asthma. Before the doctor told you, did you ever suspect that Aron had asthma?

Clela: Before that day, I had no idea that he had asthma. When they first called me and told me they thought he was having an asthma attack, I said that couldn't be possible – he doesn't have asthma. But I went and got him and that's what the doctor said.

Sandra: How did you feel when you learned that Aron had asthma?

Clela: At first, I was shocked and then, of course, I was worried – what if he had more attacks? What if I was not there and something happened to him? How could we keep attacks from happening?

Sandra: What was it like to take care of Aron in the beginning?

Clela: I was so confused at first. The doctor used all these new words, like “nebulizer” and “inhaler” plus drug names. Plus, they gave me this thing called a “peak flow meter” and it took me a while to figure out how to use it to tell how well Aron’s lungs were working. I also had to teach Aron how to use the meter. Then I had to keep track of how he was doing to report back to the doctor. It was a lot of work, but I knew I had to do it for Aron. Now, it’s great. He’s so mature, he takes care of himself but I still worry a little.

Sandra: What worries you now?

Clela: Even though his teachers have been nice and have wanted to help, I had to fill out a whole bunch of forms to get permission for Aron to carry his inhaler with him, instead of having to go to the nurse’s office every time he needed to use it. I wish the school made it easier for people like us. Plus, now because of money, they are cutting back on having nurses at school, and teachers don’t know enough about how to deal with asthma attacks. That makes me a little nervous. Coaches can be even worse. Sometimes they make the kids work so hard. I think that if they knew more, they would be more flexible and not ask so much of the kids.

Sandra: Do you have any advice for parents of a child with asthma?

Clela: I think it’s natural that you want to protect your child, but you have to keep them out there in the world. It’s important to keep them active – he must not become a “couch potato.” It takes a lot of time and energy for parents, but it’s important for your kids. His younger years were pretty hard on both of us, but I am really proud of how well Aron does, how normal a life he has now.

Handout A (for Living with Asthma)

Tools for Treating Asthma *

Nebulizer

A nebulizer is an electrically powered machine that changes liquid medicine into a mist. This mist can be breathed directly into the lungs through a face mask or mouthpiece. To see a picture, go to the Cleveland Clinic Health Systems Web site at <http://www.cchs.net/health/health-info/docs/0300/0352.asp?index=4297>)

Inhaler

An inhaler is a device that gets medicine directly into a person's lungs. There are two kinds of inhalers. One kind is a metered dose inhaler, also known as puffers, which delivers the medicine in a mist or spray form. A second kind is a dry powder inhaler, which delivers the medicine in a fine powder form. To see a picture, go to the Cleveland Clinic Health Systems Web site at <http://www.cchs.net/health/health-info/docs/2400/2415.asp?index=8694&pflag=1>)

Peak flow meter

A peak flow meter is a device that measures how fast air comes out the lungs when you exhale forcefully. To see a picture, go to the Cleveland Clinic Health Systems Web site at <http://www.cchs.net/health/health-info/docs/1500/1545.asp?index=4298&pflag=1>)

* Some information adapted from the Cleveland Clinic Health Systems Web site on Asthma at <http://www.cchs.net/health/getcontents.asp?DocID=center&cID=4>

Handout B (for Living with Asthma)**Questions to Think About**

1. In your own words, describe how Aron and Clela found out that Aron had asthma.
2. Make a list of the different feelings Aron and his mother have experienced since he learned he has asthma. What made Aron and his mother feel this way?
3. Read the interview again and make a list of the all the things Aron needs to do on a regular basis to take care of himself because he has asthma.
4. What advice does Clela offer parents whose children have asthma?
5. Make a list of the problems and concerns Clela faces in caring for Aron. What things did she need to learn to help care for Aron?
6. Think about your own experiences managing a chronic disease, or think about what you know about chronic diseases based on other people's experiences.
 - How are your experiences (or that of someone you know) similar to or different from Aron and Clela's experiences?
 - What things does a person need to learn to take care of him or herself if he or she has a chronic disease?

Lesson 2: (ABE) Developing Problem-Solving Skills *

<p>Chronic Disease Management Task Addressed in this Lesson</p> <ul style="list-style-type: none"> • Students will strengthen their problem-solving skills in order to be better prepared to manage (or help others manage) a chronic disease. <p>Skills Focus</p> <ul style="list-style-type: none"> • Students will develop communication, critical thinking, and analytic skills used for problem solving. <p>ABE/ESOL Level Intermediate to advanced ABE</p> <p>Time 1 ½ hours</p> <p>Materials</p> <ul style="list-style-type: none"> • Student handouts (2) • Blackboard newsprint, or overhead transparencies • Markers 	<p>Purpose</p> <p>This lesson is designed to strengthen students' problem-solving skills. Students will learn a process that will help them when they are faced with a problem. The lesson focuses on identifying problems and generating possible solutions. The students will also discuss how these problem-solving skills can help people who are learning to manage a chronic disease.</p> <p>Steps</p> <ol style="list-style-type: none"> 1. Distribute copies of the Decision Mountain template. Tell the students that they are going to make a decision by climbing the "Decision Mountain." By climbing the mountain, they will examine carefully the problem presented in several different stories that describe difficult situations faced by people who have a chronic disease. <p>Distribute the Problem-Solving Stories worksheet. Note that the full worksheet contains four stories. Depending on the size of the class and the time frame of the class session, you may wish to distribute only as many as you think your class can cover in a single class session.</p> <p>Based on your own understanding of your students' experiences with chronic disease, you may wish to add your own stories that address their particular concerns. As the students examine the stories, they will learn about key steps involved in decision-making. Be sure to point out that these decision-making skills are relevant to many aspects of every day life – such as managing situations at work and in the home – and not just for managing a chronic disease.</p>
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* This lesson has been adapted from a Decision-Making lesson created by Lezlie A. Kelley of the Utah Law-Related Education Project of Salt Lake City, Utah. It is available online at http://www.eduref.org/cgi-bin/printlessons.cgi/Virtual/Lessons/Social_Studies/Psychology/PSY0004.html.

2. Ask students to form small groups of three to four. Alternatively, if the class is small, you may wish to stay as a large group and discuss the stories as a class.
3. Explain that the class will examine the first story together. Ask each group to read the first story and identify the problem in the story. Allow five minutes or so for groups to discuss. A description of the problem is written at the bottom of the mountain illustrated on the board or on poster paper. Explain to the students that there are no “right” answers in this activity. It is possible that students will identify different problems in the same story, depending on how they interpret the character’s actions and feelings.

Note to teacher: The most challenging part of this activity will likely be identifying the problem, as this is usually the most difficult step for many individuals learning to manage a chronic disease. Patients sometimes have a vague sense that something is problematic or frustrating but they cannot identify the problem precisely enough to generate options. Another common problem is that patients identify the problem too globally. It requires some work to narrow the focus so that options can be generated. Group discussion can be very important in this process.

Note that, when students identify different problems, there is no need to choose the “best” answer. It is important to hear how students identified the problem. In response to the same story, one group of students may focus on problems related to a person’s behavior (e.g., forgetting to take medicine) while another group may focus on a person’s emotions and attitudes (e.g., feeling confused about the instructions for taking medicine). To help the students focus their interpretation of the stories, encourage them to think about the perspective of the person with the chronic disease in each story.

4. After groups have had the opportunity to identify the problem, ask each group to identify possible options for resolving the problem in Story #1. You (or a volunteer) will write down the suggested options on the mountain illustrated on the board or on poster paper.
5. Next, ask the students to identify possible consequences (positive or negative) for each of the listed options. List the consequences with the corresponding option number.
6. Ask the students to go back to their small groups and decide which options and corresponding consequences are best. Allow 10 minutes for this small group discussion. After the 10 minutes, ask each group to share their group decision.

7. Assign the remaining stories to pairs or small groups of students. Provide each group with extra copies of the **Decision Mountain** template for each story. Ask them to use this template to complete the following steps:
 - Name the problem
 - List possible options
 - Write the consequence for each option
 - Decide on the best option

Again, if the class is small, you may wish to work together as a class to fill out the Decision Mountain template for each story.

8. For each assigned story, ask the small groups to describe their final decision to the whole class. You may wish to copy the **Decision Mountain** template onto an overhead transparency or poster paper so that you (or a volunteer) can fill out the template as you discuss the students' responses to each story.
9. After the groups have shared their ideas, discuss the decision-making process as a whole class. Consider using the following questions to facilitate whole-group discussion:
 - *Which story had a problem that was the easiest to solve? Which story had a problem that was the most difficult to solve? What made the problems easy or difficult to solve?*
 - *Did any of the stories make you think of problems you or someone you know has faced? What did you (or the person you know) do? Were you or the person able to solve the problem?*
 - *Did you find the Decision Mountain useful for thinking of a solution to the problem in each story? Why or why not?*
 - *Would you recommend the Decision Mountain to someone who is learning to manage a chronic disease? Why or why not? Do you think you might use the Decision Mountain in your everyday life? If yes, explain how. If not, explain how you might solve problems differently. Are there other strategies you use to make decisions?*

10. **Note to the teacher about applications of lesson to chronic disease management:**

At the end of this lesson, it is useful to call attention to a few ideas related to problem-solving strategies, particularly as it relates to chronic disease management. These ideas are based on material in *Living a Healthy Life with Chronic Conditions: Self-Management of Heart Disease, Arthritis, Diabetes, Asthma, Bronchitis, Emphysema & Others* by Kate Lorig and colleagues. (See endnotes for full reference.) You may wish to talk about these points as a way of reflecting on the goals of the lesson with the students:

- *Managing a chronic disease involves problem solving.* Without a doubt, people who live with a chronic disease face many problems. There are physical and emotional challenges that make it hard to carry out normal, everyday activities, like going to work and having a social life. People with a chronic disease must do many things such as take medicines on a schedule, observe what makes them feel good and what makes them feel ill, make and keep appointments with doctors. It is easy for people to feel overwhelmed by the many tasks they have to do in order to take care of themselves.
- *Problems do not always have an obvious solution.* Sometimes the most difficult step in problem solving is identifying the problem. As noted earlier in this lesson plan, sometimes we don't know exactly what the problem is; we only know that we feel frustrated, stressed, or confused. It requires some hard thinking to figure out what the problem might be. This takes practice. This lesson gives students an opportunity to practice identifying problems.
- *Problems do not have only one solution.* Another difficult step in problem solving is coming up with possible solutions. Sometimes the problem is not something that the person can solve alone. It is hard to think of all possible solutions by yourself. At the same time, a person may be reluctant to reach out to friends, family, or doctors because he or she may feel embarrassed about not knowing what to do. This lesson gives students an opportunity to problem-solve in collaboration with others. This reminds students that *asking* for help from others is an important step in the problem-solving process.
- There are cultural differences in the way people solve problems. Some people may feel it's important to delegate decision-making responsibility, while others may place a strong emphasis on self-reliance in decision-making. Some people favor a majority-rule approach while others will prefer consensus. You may wish to point out that people's cultural backgrounds may influence their problem-solving processes. This point is highly relevant for using this lesson with adult ESOL students.
- Finally, remind students of an important reality about chronic disease management: some problems, despite numerous attempts to solve them, may not go away. This doesn't mean that the problem will never be solved, but it means that the problem cannot be solved right now. Encourage students to keep trying.

ESOL Teaching Tips

In an adult ESOL classroom, the diversity in racial and linguistic background and cultural assumptions and beliefs bring richness to the discussion of the problem-solving skills and processes. This lesson, in design, reflects only one possible (Western) approach to problem solving. When working with adult ESOL students from diverse backgrounds, you may wish to begin the lesson by pointing out that each individual in the class has his or her own style of expressing ideas, and making decisions. These styles are influenced by personality, family background, belief system, cultural background, and problem-solving experiences (e.g., on the job).

You may also want to set the stage for the lesson by calling attention to cultural differences in the way students solve problems. Students may wish to share differences in the way people communicate, disagree, or solve problems between their home country and the U.S. You may wish to make the topic of cultural differences in problem solving the topic of a follow-up writing activity.

ABE/GED Teaching Tips

To make the lesson more challenging for students, use the lesson as a writing exercise. Ask the students to write an essay (e.g., persuasive essay defending their response to one of the stories). You may wish to use the small discussion groups in Step 6 as an opportunity for the students to share their ideas with their peers and begin planning what they will write in their essays.

This lesson may also provide a useful context for teaching students about flowcharts. In teaching students about flowcharts, the goal is to provide them with an opportunity to take a step back and think about what must be done before attempting to solve a problem. Flowcharts provide a mechanism for describing the process in which a problem is solved or a decision is made. See **Technology Tips** for a suggested web-based resource.

Technology Tips

If you are interested in using this lesson to discuss flowcharts with your students, you may wish to search the Internet for information about the nature of flowcharts. The Web site for Florida Tech Net (www.floridatechnet.org) maintains a “Living Library” which houses a GED lesson bank. One of their science lessons is on interpreting flowcharts.

The lesson is available in Adobe Acrobat:

<http://www.floridatechnet.org/GED/LessonPlans/Science/ScienceLesson16.pdf>

Decision Mountain Template *

Decision Mountain

Decision

Consequences

1. _____ 2. _____

3. _____ 4. _____

Options

1. _____

2. _____

3. _____

4. _____

Define the Problem

* From a Decision-Making lesson created by Lezlie A. Kelley of the Utah Law-Related Education Project of Salt Lake City, Utah. It is available online at http://www.eduref.org/cgi-bin/printlessons.cgi/Virtual/Lessons/Social_Studies/Psychology/PSY0004.html.

Problem-Solving Stories

1. John and Steve had agreed to go to a baseball game together. When John arrived at Steve's house to pick him up, he found that Steve was not ready. Steve tells John that he is not sure he wants to go because his arthritic knees are bothering him. John feels annoyed and says, "I wish you had told me earlier. I could have asked someone else to go with me to the game." Steve replies angrily, "You just don't understand. If you had pain like I do, you wouldn't be so quick to get angry." John says, "Well I guess I'm going to the game by myself."¹

¹ Adapted from Lorig, K., Holman, H., Sobel, D., Laurent, D., Gonzalez, V., & Minor, M. (2000). *Living a Healthy Life with Chronic Conditions: Self-Management of Heart Disease, Arthritis, Diabetes, Asthma, Bronchitis, Emphysema & Others*. Boulder, CO: Bull Publishing Co. (p. 142)

Problem-Solving Stories (continued)

2. Joanne suffers from emphysema and heart disease and doesn't always take her medicine regularly. "Sometimes I forget to put them in my purse," she says. "I'd dress for the day, leave the house, realize I forgot them and say, 'Oops, well I'll just take them tomorrow.'" One time she didn't take her medicine and ended up in the emergency room because she couldn't breathe. Joanne's doctor thinks she is forgetful and needs to think of ways to remind herself to take her medicine, such as setting an alarm clock. Joanne, however, is embarrassed about the real reasons why she doesn't always take her medicine: she doesn't understand the doctor's instructions on how and when to use each of her three different inhalers. "The doctor would start to tell me and I'd tune him out," she says. "I was overwhelmed. I really hate the idea that I'll have to take drugs for the rest of my life."²

² Adapted from "The Real Drug Problem: Forgetting to Take Them -- As Many as Half of Patients Fail to Follow Their Regimen; a Pillbox That Can Nag", *Wall Street Journal*, October 21, 2003, written by Amy Dockser Marcus, Staff Reporter of The Wall Street Journal, <http://www.aegis.com/news/wsj/2003/WJ031006.html> accessed October, 2005.

Problem-Solving Stories (continued)

3. Javier has high blood pressure. His doctor talked to him about the link between having high blood pressure and being overweight. The doctor suggested that Javier try to lose some weight as one of the things he can do to help lower his blood pressure. Javier has tried different diets but nothing seems to work. He tells the nurse at his doctor's office, "To tell you the truth, healthy food doesn't taste the same as real food. When I eat, I want to eat something with substance, like meat and potatoes. The healthy stuff just doesn't fill me up."³

³ Adapted from Lorig, et al. (2000). *Living a Healthy Life with Chronic Conditions: Self-Management of Heart Disease, Arthritis, Diabetes, Asthma, Bronchitis, Emphysema & Others*. Boulder, CO: Bull Publishing Co. (p. 195)

Problem-Solving Stories (continued)

4. Belinda is twenty-six years old and was recently diagnosed with diabetes. Her friends are worried about her because lately she has been spending a lot of time alone. She has not been returning phone calls. One afternoon, one of her friends, Maria, stops by Belinda's house to see how she is doing. She finds Belinda sitting on the couch watching television. Maria wants to perk Belinda up so she immediately turns off the television and suggests they grab a bite to eat. Belinda tells her that she wants to stay home and watch television. Maria insists that they go out, saying, "Come on, getting some fresh air will be good for you." Belinda gets angrier and says, "Good for me? I'm sick and tired of people telling me what's 'good' for me. Do you know how hard being a diabetic is? I see candy bars and I have to stop and ask, can I have one? I want to exercise, but I have to remember to bring sugar tablets. I'd like to go out, but most of the time, I feel completely exhausted!"⁴

⁴ Adapted from Franklin, Owen, *Struggling Exhaustion: When Diabetes Becomes Too Hard*. Available at http://www.savvyhealth.com/disp.asp?doc_id=417

Lesson 3: (ABE) How to Manage Your Medicines

Chronic Disease Management Tasks Addressed in this Lesson

- Planning weekly schedules for taking multiple medicines
- Planning medicine refills

Skills Focus

- Learners will review vocabulary related to taking medicine.
- Learners will practice creating schedules for taking medicine.
- Learners will practice using calendars for planning medicine refills/purchases.
- Learners will practice reading a table for information.
- Learners will practice using basic math skills (addition, multiplication, division).

ABE/ESOL Level

Low to intermediate ABE

Time

1 ½ - 2 hours

Materials

- Student Handouts
- Optional Handouts
- Pill boxes (optional)
- Candy (optional)

Vocabulary

aspirin	once-a-day
daily	once-a-week
diabetes	osteoporosis
dose	pill box
dosage	pill organizer
high blood pressure medications	prescription refill
medicine	twice
monthly	weekly

Purpose

This lesson focuses on scheduling and organizational skills. The lesson has two parts, which can be taught in one lesson or as sequential lessons.

- In Part One, students discuss and practice planning a week's medicine and using pillboxes as an organizing tool.
- In Part Two, students use a calendar to plan when to get prescriptions refilled.

Prerequisites

This lesson assumes that students have some understanding of what prescription drugs are and how they are obtained. (Note that the time management lesson in this packet includes a sample prescription label if you feel you need to review a label with your students.) In addition, students should have some familiarity with the use of calendars, and they should be able to carry out simple mathematical operations, including addition, multiplication, and division.

Steps

Introduction: Whole class discussion

1. Introduce the lesson by pointing out to students that in many instances, people need to take multiple medicines for one illness. In addition, people may have more than one health problem for which they need to take different medicines. In these kinds of cases, a person may need to take several medicines on the same day or within the same week.
2. Show students the picture of the man surrounded by pills, instructions, and a calendar. (You may use the picture as a handout or a transparency.) Ask students the following questions:
 - *What is going on in this picture?* (e.g., The man is confused because he has too many pills to take and too many instructions to follow.)

- *What kinds of problems might this man face as he tries to take many different pills each week? (e.g., It is hard to remember which pill to take at which time; you run out of pills at different times; sometimes drugs interact and cause problems.)*

Point out that in **Part One** of this lesson, students will look at some ways of organizing medicines when a person needs to take more than one on a regular basis. **In Part Two**, students will practice using calendars for planning when to buy medicines before they run out.

3. (Optional) Vocabulary Review

If your students are unfamiliar with the language of instructions for taking medicines, you may want to spend a few minutes reviewing some vocabulary.

Using the picture of the man surrounded by pills as a reference, ask students to choose a term from the picture and define it, or phrase it another way. (e.g., “daily” means “every day.”) After students have reviewed the terms, ask students if they can list other words or phrases related to directions for taking medicine. These might include the following:

Every four hours
 Twice a day
 Two a day
 Three or four times a day
 As needed
 Every day
 Every hour
 Before meals
 After meals
 Once a week

Students might also think of expressions for the form or quantity of medicine like:

Teaspoonfuls
 Pill
 Tablet
 Capsule
 ml (milliliters)

Ask if students have questions about any of these terms. If it seems necessary, check students’ understanding by asking a few questions such as “*Look at the expressions: “two a day” (e.g., two pills a day) and “twice a day” (e.g., two times a day) – are they different, or can they mean the same thing; how would you know?”* “*How is a tablet different from a capsule?”*”

Once you feel that students are comfortable with these terms, go on to **Part One** of the lesson.

Part One

1. Use a pill box to plan a weekly medication: Large group review and pair work

Distribute the **Pill Box** handout (1 page) to show students a simple pill box (also called a pill organizer) and explain how it is used.

Teaching note: This lesson uses drawings to simulate the activity of filling a pill box. Ideally, students would benefit from the tactile experience of actually filling a real pill box – with candy serving as substitute pills. If it is not possible to have enough boxes for small group work, it would be most helpful to have at least one pill box on hand so that students can see and touch a real one.

Ask if any students are familiar with pill boxes. If so, then ask a student to explain how they are used. As necessary, make the following points:

- This is called a “pill box” or “pill organizer.” People use it to help them keep track of and organize their medicines.
 - You can put the medicines you need to take each day into the little boxes that are marked for each day of the week: S for Sunday, M for Monday, T for Tuesday, W for Wednesday, T for Thursday, F for Friday, and S for Saturday.
 - On any given day, you can tell how many pills you must take on that day. At any time of day, you can tell if you have already taken your medicine.
 - A pill box can be used with only one pill or with more than one pill.
 - You can purchase a pill box at a drug store and it is usually not very expensive.
 - Some people use multiple boxes – different colors for different parts of the day (morning, afternoon, evening).
- a) Explain that students will now practice reading directions and preparing a pillbox. Ask students to take a few minutes to complete the activity on the worksheet, **Irene’s Weekly Medicines** (1 page), and to review their answers with a classmate.

Note to teacher: The simple shapes used to represent pills in this lesson are intended to provide students with simple models for drawing. In the activity, it is not important for students to draw perfect shapes; the emphasis should be on distinguishing among the different pills and placing them properly in the “pillbox.”

- b) Point out that some people need to take pills more than once a day. Some pillboxes have separate spaces for morning and evening (or morning, afternoon, and evening). Distribute the **Angela’s Weekly Medicines** handout (2 pages). Ask students to work with a partner to “fill” the week’s boxes for Angela. Circulate and check students’ work. (As noted above, the emphasis should be on distinguishing among the different pills and placing them properly in the “pillbox,” not on drawing perfect shapes.)

- c) Explain that you now want to give students a chance to practice speaking and writing. Distribute the **Enrique’s Weekly Medicines** handout (2 pages). Review the first sheet with students. Remind them that the pictures of pills are just examples and do not necessarily resemble actual pills. Ask pairs to look at the “pill box” (table) that contains Enrique’s medications for the week. Ask pairs to practice saying out loud and writing out sentences to describe how often Enrique takes each pill.

Possible responses:

- *He takes one cholesterol pill (or pill for his cholesterol) once a day (or every morning).*
- *He takes two pills for high blood pressure every morning.*
- *He takes one pill for arthritis every morning.*
- *He takes a blood thinner pill every other day.*
- *He takes two pills for depression every evening.*

2. Share Reminder Strategies: Large group brainstorm

After everyone has completed the worksheets, reassemble the whole group and point out that students looked at one way to remember to take pills. Ask the class to brainstorm additional ways to help people remember when they need to take pills.

Answers may include:

(Note: The following list is included in an optional handout, **Tips for Remembering to Take Medicines.** *)

- Schedule medicine around daily activities, such as meals, tooth brushing, etc.
- Plan ahead for vacations or other days that are different from your regular routine.
- Use an alarm on a small clock or watch.
- Put notes in places where you will see them, such as doorknobs, mirrors, in the kitchen (but not over the stove!), etc. (Note that it is not a good idea to store medicines in the bathroom since the warmth and moisture of the room might damage some medicines. Also, always store medicines locked and out of the reach of children.)
- Put medicines next to things you’ll use around the time you need to take them, such as next to your toothbrush or on your nightstand.
- Have a friend or family member help to remind you to take medicine.
- Use a color marker to color-code medicine bottles, or put large print labels on them. Never put medicines in containers meant to hold other things, especially food or beverage containers. Children might eat them. Always keep medicines in their original child-proof containers.
- Draw a large clock and put color codes on the clock face to match colors on each medicine bottle.

* Adapted from “Ten Tips to Keep Up with Your Meds” found at http://www.thebody.com/pinf/whatsnew_600/treatment.html#10 accessed October, 2005.

- Make sure you can see a clock or watch during the day.
- Create a chart listing the specific times when you need to take medicines. Leave a place on the chart to check off each medicine as you take it.
- Plan ahead three to five days (one to two weeks for mail order prescriptions), and get refills approved and filled before medicines are finished.

Part Two

1. **Use a calendar to plan for refills: Large group review and pair work practice**
Remind students that taking medicines correctly also requires planning. You need to plan when to refill prescriptions before your medicines run out. Give students an opportunity to share what they know about obtaining refills by asking a few questions:

- *How do you get another prescription when yours runs out?*
(e.g., *I go to the pharmacy and buy a refill; I order it over the phone and pick it up later.*)
- *How do you know where to go for a refill?*
(e.g., *I look at the label and go to the pharmacy where I bought the last bottle.*)
- *How many refills can you get for a prescription?*
(e.g., *It says on the label how many refills I can get. I can only buy one at time because my insurance only lets me buy a one month's supply.*)

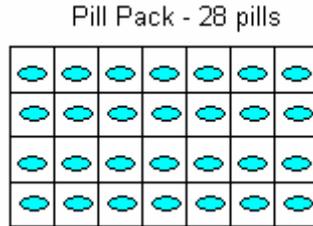
Class Exercise

Remind students that we sometimes have to plan ahead to know when we will need to buy more medicine, or get a refill for a prescription.** To help with this kind of planning, we often need to use a calendar and a little simple math.

- a) Distribute the **March, April, and May calendar** handouts (3 pages).
Tell students that you would like to talk about an example of someone (Marco) who must buy medicine when he uses up what he has. Describe the following example to students and ask the questions listed. You may wish to draw pictures of a pill pack (see picture below) to help learners follow the example. Encourage students to use the calendar handouts to help them.

** Depending on your students, the issue may come up that they need to give at least three days advance notice for refills, particularly if they need a new prescription. Most pharmacies will honor a prescription that allows refills for 12 months only. After that, the patient must get a new prescription from the doctor's office, and this may take one to three days.

Marco takes one kind of drug that comes in a package of 28 pills. He must take two pills a day.



- *How many days will one package last him? (answer: 14 days)*
- *If Marco bought a package of pills and started taking them on March 3, when would he finish that package? (answer: March 16)*
- *What if Marco started taking the pills on March 5? (answer: March 18)*

Ask for volunteers to share their answers. You may want to call attention to the fact that even though 14 days is the same as two weeks, we cannot just count two weeks on the calendar to answer the above questions. Counting for the purpose of planning medicines is slightly different than counting how time passes. We need to begin counting on the day that Marco starts taking the pills. That day will be day 1 of 14. Counting precisely is very important in cases where a person must not miss taking their medicine. Using a calendar to count out days is a useful skill for managing chronic diseases. In some cases, missing one pill or one day may cause serious health problems.

Continuing with the Marco example, ask the following questions of the whole class.

- *If Marco bought his pills on March 28 and took the first pill on March 30, when would he finish the package? (he'll finish on April 12)*
 - *When should Marco buy more pills? (no later than April 13 – preferably before)*
 - *If Marco were able to buy bigger packages of 60 pills, how many days would that package last him? (30 days)*
 - *If he bought the larger package on March 10 and took the first pill on March 11, when would he finish it? (April 9)*
 - *When should he purchase more pills? (no later than April 10)*
- b) Have students work in pairs to complete the **Calendar Planning Worksheet** (1 page). Circulate and answer any questions as necessary. After everyone has completed that sheet, distribute the worksheet for **Margaret's Pills** (3 pages). You may want to review how to read a table of rows and columns. Adjust the pace and review process for these two worksheets as needed for your students.

Once everyone has finished the assignment, bring the class back together to share advice for traveling with medicines (Question 9 on Margaret's Pills worksheet).

ANSWER KEY for Worksheets

Calendar Planning Worksheet

1. 30 days
2. May 4
3. 30 days
4. May 31
5. May 29

Margaret's Pills Worksheet

1. 30 days
2. April 10
3. 30 days
4. May 3
5. 10 weeks
6. May 28
7. diabetes 20; blood pressure 10; arthritis 10; osteoporosis 2
8. blood pressure and arthritis
9. Answers may include: *
 - Bags can be lost on planes, trains, or buses. Do not pack your medicines, but always keep them with you so they don't get lost.
 - Always keep medicines in their original containers with labels so you will not confuse the drugs.
 - Take enough medicine for a few extra days in case you are delayed beyond your planned trip.
 - Take a copy of your prescriptions and your health insurance card with you.
 - Find a way to remind yourself to take your pills while you're on a vacation schedule.
 - You might need to store medicine differently in a different climate.

After students have shared some answers, you may want to distribute the handout **10 Tips for Traveling with Medications** (2 pages) and add to this list.

* Suggested answers adapted from *10 Tips for Traveling with Medications* available at http://www.lifeway.com/lwc/article_main_page/0,1703,A%253D150092%2526M%253D50022,00.html

2. Conclusion: Large group discussion

To conclude the lesson, ask students to take one minute and think of one thing that they learned in this lesson that will be helpful to them or someone they know.

Examples might include:

- Learning about pillboxes as a tool for managing medicines
- Planning with a calendar
- Planning ahead
- Tips for remembering to take medicines
- Traveling with medicines

Follow-up Activities

1. **Writing activities:** Ask students to do some free writing related to the topic of taking medicines or talking to pharmacists. Some writing prompts include: *Describe a time when you had a problem with taking medicines. How do you feel when you need to go to the pharmacy to buy medicine? What would make your visit to the pharmacy better?*
2. **Research on pill organizers:** If your students are interested in pill organizers, have them visit their pharmacy or go “on line” to explore different types of pill organizers. Have students write brief descriptions of the different boxes and note prices and where the boxes are available. This information can be presented in a written format, such as a simple table, or in an oral presentation in class.
3. **Research at a pharmacy:** Provide students with a list of commonly found medicines (e.g., cough medicine, pain medicine, eye drops, etc). Ask students to visit a pharmacy to locate these medicines (or some variation of them). Students should read package labels to determine how many days’ worth of medicine a package contains if a person takes the recommended dose listed on the package. Students might also do some price comparisons of generic and name brand medicines. Students should record the information they gather in a journal or be prepared to present their findings in class.
4. **Web-based reading and activities:** Some materials available on the web can serve as the basis for a range of follow-up activities.

a) Drug interactions are a common problem for people who take multiple medicines. Ask students to read *Managing multiple medications* at <http://www.umaine.edu/mainecenteronaging/documents/FactSheetManagingMultiple.pdf> (possibly in addition to *Medicines and Older Adults*, noted below) and ask them to write a paragraph or create a dialogue about what they learned. See <http://www.ismp.org/Consumer/BrownBag.html> for more on this topic.

b) Visit the U.S. Food and Drug Administration Web site at <http://www.fda.gov/opacom/lowlit/7lowlit.html>. Select one of the easy to read publications that pertain to medicine (e.g., *Medicines and Older Adults*, *How to Give Medicine to Children*, *Use Medicine Safely*). Have students read one of the brochures and do one or more of the following:

- Present the five most important pieces of information from the brochure to the class.
- Write dialogues inspired by information contained in the brochure.
- Write a letter to a real or imagined friend who takes multiple medicines, sharing what the student has learned.

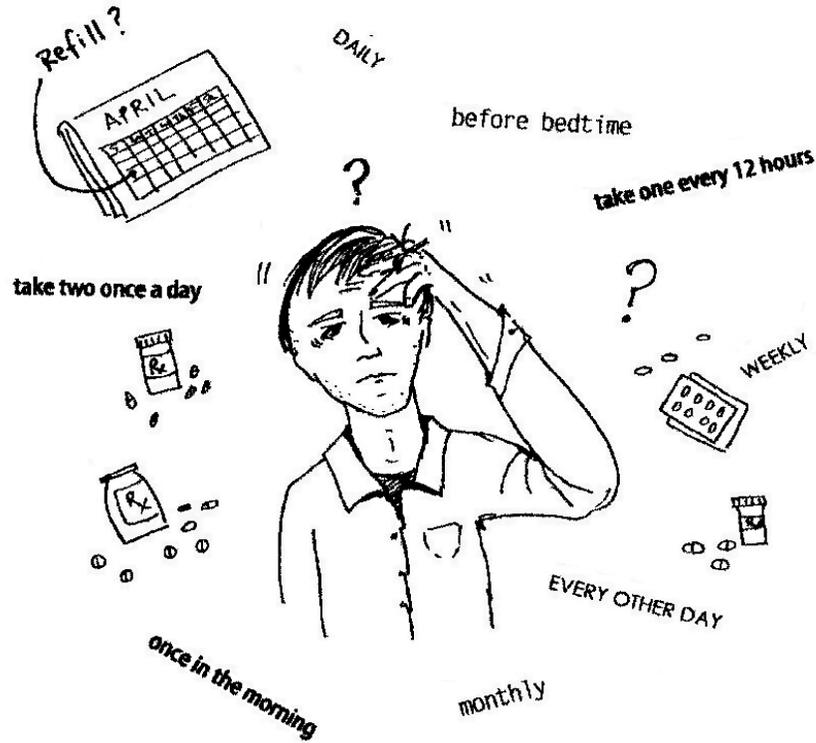
ESOL Teaching Tips

If you decide to use this lesson with ESOL students, it may be especially important to leave time for the optional vocabulary review included in this lesson. In addition, you may wish to integrate some discussion of the process for obtaining medication in this country, because pharmacies may operate differently in other countries.

Additional Resources

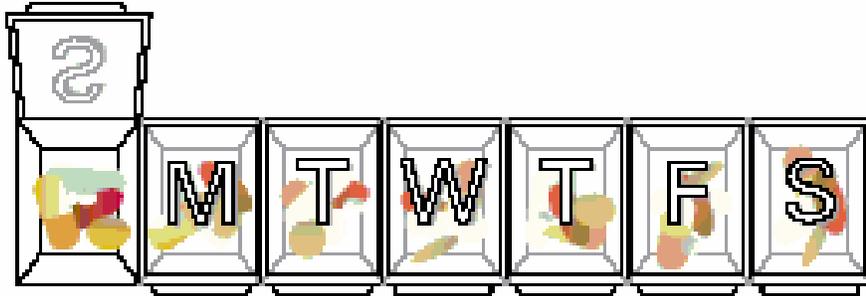
- ✓ *Read the Label*. New York: Council on Family Health, 1997.
This is a 50-page ESOL teacher's guide that includes lessons for beginning, intermediate, and advanced level students. It teaches why it is important to read medicine labels, how to do so, and how to ask the pharmacist for help. The guide includes dialogues, key concepts and vocabulary, question-and-answer exercises, and an extensive teacher's glossary. It is available from the Council on Family Health; 225 Park Avenue South, Suite #1700; New York, NY 10003; phone (212) 598-3617 for single copy; phone (212) 725-3200 for larger quantities; Free.
- ✓ Consumer Healthcare Products Association at http://www.chpa-info.org/Web/for_consumers/publications/consumer_publications.aspx
This Web site includes several useful publications, especially *My Medicines*, a brochure that offers a pocket size table for listing medicines and important information.
- ✓ Safely Managing Medications at <http://www.familycaregiversonline.com/newsletter-v-3-04.html>
By Romie J. Myers, RN, Web Manager, FamilyCaregiversOnline.net & Zanda Hilger, M. Ed., LPC, Caregiver Education, Area Agencies on Aging
- ✓ Taking Medicines Safely <http://nihseniorhealth.gov/takingmedicines/takingmedicinessafely/01.html>
The site has sections on how to take and manage medicines. The site includes lots of good information, such as questions to ask a doctor about your medications, a simple medication record, and an on-line quiz to check understanding of the material. The FAQs (Frequently Asked Questions) are informative too. Some information is presented through video clips.
- ✓ Over the Counter - Understand Your Medicine Labels (3 pages - follow the links) <http://www.nclnet.org/health/OTClables/Labels.html>
- ✓ The New Over-the-Counter Medicine Label: Take a Look <http://www.fda.gov/cder/consumerinfo/OTClable.htm>

Illustration for How to Manage Your Medicines



© Maricel Santos and Lisa Soricone

Pill Box *

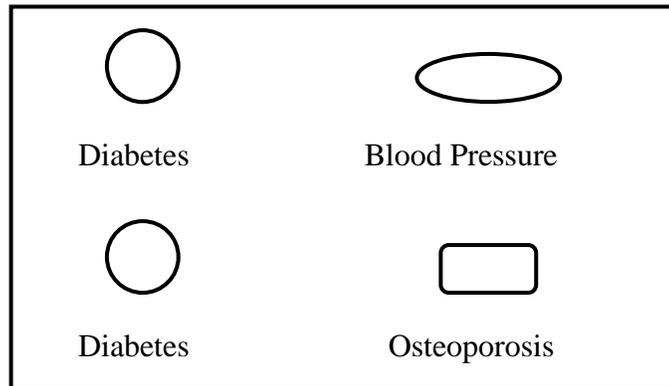


* This pill box (pill organizer) picture is from “Medicines and Older Adults,” a brochure available from the U.S. Food and Drug Administration Web site at <http://www.fda.gov/opacom/lowlit/englow.html>

Irene's Weekly Medicines

Irene has to take three kinds of pills each week. She takes:

- 2 pills daily for diabetes
- 1 pill daily for high blood pressure
- 1 pill on Sunday for osteoporosis



Imagine that you are going to help Irene fill her pillbox. In the column for each day, draw the pills that she needs to take. Use the pictures in the box above to help you.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Angela's Weekly Medicines

Angela has a number of health problems (diabetes, heart disease, high blood pressure, high cholesterol, osteoporosis) so she must take several different medicines.

Every day, she takes

2 pills for diabetes – one in the morning and one at night

2 pills for high blood pressure – one in the morning and one at night

2 pills for cholesterol – both in the morning

1 aspirin – in the evening

On *Mondays, Wednesdays, and Fridays*, she takes

1 water pill

On *Saturdays*, she takes

1 pill for osteoporosis

Diabetes	
Blood Pressure	
Cholesterol	
Aspirin	
Water Pill	
Osteoporosis	

Imagine that you and a partner are going to help Angela fill her pillbox using the table below. In the column for each day, draw the pills that she needs to take. Use the different parts of each day to separate pills to be taken in the morning and evening.

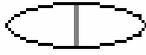
AM = morning

PM = evening/night

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
AM						
PM						

Enrique's weekly medicines

Enrique has many health problems. To take care of himself, he takes five different kinds of pills each week, as shown below.



Cholesterol



High Blood Pressure



Arthritis



Depression



Blood Thinner

The chart on the next page shows how often Enrique takes each pill. First, look at the chart and say out loud how often he takes each pill. For example, "*Enrique takes his cholesterol pill... (every morning, once a day, etc.)*" Next, in the spaces below, for each pill, write a sentence that tells how often Enrique must take it.

1. _____

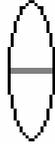
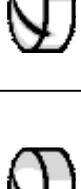
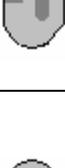
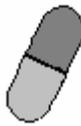
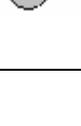
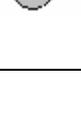
2. _____

3. _____

4. _____

5. _____

Enrique's Weekly Medicine Schedule

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
AM    	AM    	AM    	AM    	AM    	AM    	AM    
PM  	PM  	PM  	PM  	PM  	PM  	PM  

March

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

April

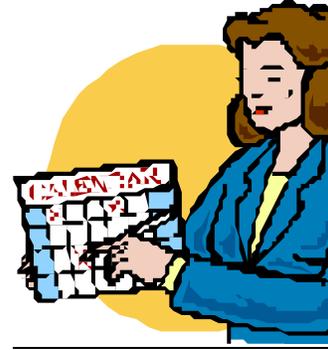
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

May

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Calendar Planning Worksheet

Use the sample calendars to help you answer the questions below.



1. Winston uses one needle every day to treat his diabetes. If needles come in packages of 30 needles, how long will one package last?

2. If Winston begins a new package of needles on April 5, when will he finish it?

3. Antoine takes two pills a day for a stomach problem. His prescription bottle holds 60 pills. How many days will this bottle last?

4. If Antoine takes his first pill from this bottle on May 2, on what day will he finish the bottle?

5. Celia must take one aspirin a day for her heart. She bought a bottle with 60 pills. If she took the first pill on March 31, on what day would she take the last pill from this bottle?

Margaret's Pills

Margaret takes four different kinds of pills, as listed in the table below.

What pill is for	How much she takes	Number of pills in a bottle
Diabetes	2 pills a day	60
Blood pressure	1 pill a day	30
Arthritis	1 pill a day	30
Osteoporosis	1 pill per week	10

Answer the following questions about Margaret's medicines.

1. How long will one bottle of her diabetes pills last?

2. If she begins her bottle of diabetes pills on March 12, when will she take her last pill?

3. How long will one bottle of Margaret's blood pressure pills last?

4. If she purchases a new bottle on April 1 but does not start it until April 4, by what date should she buy another bottle?

5. How long will one bottle of Margaret's osteoporosis pills last?

6. If she starts her osteoporosis medicine on March 26, when will she finish it?

7. If Margaret is going on vacation from April 10 to April 19, how many of each pill will she need while she's away?

diabetes _____

blood pressure _____

arthritis _____

osteoporosis _____
(note: Margaret takes this pill on Sundays)

8. On April 8, Margaret has the following pills left:

- a full bottle of diabetes pills
- 8 blood pressure pills
- 6 arthritis pills
- 4 osteoporosis pills

For which medicines will she need to order refills before she leaves on vacation?

Tips for Remembering to Take Medicines *

- Scheduling medicines around routine daily activities, such as meals, tooth brushing, etc.
- Use an alarm on a small clock or watch to schedule your medicines.
- Place reminder notes in places where you will see them, such as doorknobs, mirrors, in the kitchen, etc. (Remember -- it is not a good idea to store medicines in the bathroom since the warmth and moisture of the room might damage some medicines.)
- Put medications next to things you'll use around the time you need to take them, such as next to your toothbrush or on your nightstand. But be sure to keep medicines where children can't reach them!
- Ask a friend or family member to remind you to take medicines.
- Color-code medicine bottles by using a crayon or highlighter pen, or put large print labels on them. Remember; never put medicine in containers meant to hold other things. Keep medicines in their original child-proof containers.
- Draw a large clock and put color marks on it for each medicine. Match the colors to the bottles.
- Make sure you can see a clock or watch during the day.
- Create a chart listing the exact times when you need to take the medicines. Leave a place to check each one off as you take it.
- Plan ahead for vacations or other days that are not routine.
- Plan ahead three to five days and have refills approved and filled before medicines are gone.

* This list is adapted from "Ten Tips to Keep Up with Your Meds" found at http://www.thebody.com/pinf/whatsnew_600/treatment.html#10

10 Tips for Traveling with Medications *

In our mobile society, traveling is done year-round. With careful planning you can avoid medication mishaps. While you are away from home, keep in mind these ten suggestions about medications.

1. Keep medications with you in your carry-on luggage when traveling by plane, train, or bus. Bags you check may be delayed or lost. Take extra supplies to last beyond your planned trip. Always keep medications in their originally labeled containers so you will not confuse the drugs.
2. In some climates or weather conditions, you may need to carry your medicines in an insulated bag. Your doctor or pharmacist can advise you about the best method for storing medications for travel.
3. Keep a written list of the medications you take, including whether they are brand name or generic, the strength, the reason for their use, and specific dosages.
4. Keep your doctor's name, address, and telephone number with you, as well as similar information about your regular pharmacist. Keep a list of your drug and food allergies and a description of the reaction, along with a list of your medical conditions. Take a copy of your prescriptions and your health insurance card with you.
5. When taking oral medications, take them with plenty of water, at least eight ounces, to help absorption. Taking such medications while standing or sitting upright will keep them from getting lodged in your throat
6. Chew chewable tablets thoroughly before swallowing and then drink water.
7. Do not take medications with coffee, tea, or other hot beverages. Doing so can reduce the effectiveness of many medications.
8. When taking a medication on an empty stomach, take it at least one hour before eating or two or three hours after eating, unless otherwise directed.

* This article is courtesy of *Mature Living Magazine* available at http://www.lifeway.com/lwc/article_main_page/0,1703,A%253D150092%2526M%253D50022,00.html. Vivian M. Preston is a retired librarian in Barberton, Ohio.

9. If you are changing time zones, ask your doctor or pharmacist whether you need to adjust your medication doses or time schedule.
10. A little forethought and planning will insure your health needs will be met while you enjoy your trip.

Lesson 4: (ABE) How to Take Your Medicines on Time

Chronic Disease Management Task Addressed in this Lesson

Learners will develop skills to determine the appropriate times to take medicine and to set up medicine schedules.

Skills focus

- Learners will practice calculating elapsed time.
- Learners will practice creating schedules for taking medicine.

ABE/ESOL Level

Intermediate ABE

Time

1 ½ -2 hours

Materials

Student Handouts (8)

- Cough Medicine Label
- Cough Medicine Label Worksheet
- Antibiotic Prescription Label
- Marlena's Medicine Schedule Worksheet
- Marlena's Medicine Schedule (more days)
- Lillian's Medicine Schedule Worksheet
- Daily Schedule Worksheet
- Interview Schedule

Optional Handout (1)

- Tips for Remembering to Take Medications

Vocabulary

antibiotic
antitussive
dose
dosage
expectorant
inhaler
medication
medicine
over-the-counter (OTC)
prescription

Purpose

This lesson is designed to give students practice reading medicine labels to determine appropriate times and to set up schedules for taking medicine. The lesson involves the use of the clock and calculation of elapsed time

Prerequisites

This lesson assumes that students have knowledge and experience in two areas: 1) Students should be able to read and understand a digital or analog clock before doing this lesson; and 2) Students should have some familiarity with basic parts of a medicine label.

For sample lessons and resources on how to read medicine label, see Additional Resources at the end of this lesson.

Steps

1. Introduction: Whole class discussion

Introduce the lesson with a large group discussion of the difficulties and challenges of taking medicine. Ask students the following question:

What do you find difficult about taking medicine?

Write responses on a chalkboard or flip chart. Some possible responses include:

- *It's hard to remember to take medicine*
- *Instructions are difficult to understand (too many words, long words)*
- *Not sure how much to take*
- *Not sure when to take it*
- *Can't read the label (print is too small)*

After learners have had a chance to share some ideas, explain that the day's lesson will focus on reading medicine labels. Learners will find and use information on a label to figure out how much medicine to take and when to take it.

2. Over-the-Counter (OTC) Medicine Dosage: Large Group Review and Practice

a) Distribute the **Cough Medicine Label and Worksheet** (2 pages) and ask students to review the label and answer the following questions:

- *Have you ever seen a label like this before? On what kinds of products? (e.g., yes, on cough medicine, sinus or allergy medicine)*
- *Were you able to walk into a store to buy this medicine, or did you need an order (prescription) from your doctor? (e.g., could walk right in and buy it)*

Point out to students that this type of medicine is often referred to as “over the counter” medicine, which means that you can buy it without an official order (called a prescription) from a doctor. Sometimes people write OTC for short to refer to these kinds of drugs.

Note: You may want to remind students that the terms “medication,” “medicine,” and “drugs” all mean the same thing.

Ask the following questions to check comprehension and review new terms:

- Why would someone take this medicine? (e.g., if they have a cold with cough and congestion)
- What do the terms “antitussive” and “expectorant” mean? (Students can use dictionaries.)

(An antitussive helps to stop a cough. An expectorant makes it easier to cough up mucus/phlegm/secretions from the lungs. This medicine works by increasing the production of mucus and by making it thinner and less sticky. Note that the word “expectorate” means to “cough up.”)

Next, ask students to locate the section of the label that indicates when to take the medicine and how much a person should take. This information is found in the section entitled “Directions.” Point out that the term “dose or dosage” is often used to refer to the amount of medicine a person takes at one time and that this term may be found on many medicine labels.

Note to teacher: If students are not very familiar or comfortable with reading medicine labels, you may want to spend more time reviewing the sections of a label by asking students to identify the information in each section. For example, you might ask, “What does the ‘Uses’ section tell us?” Ask students to explain in their own words the kind of information contained in each section.

Possible answers: when this medicine should be used, why someone would take this medicine, what symptoms a person might have when they take this medicine, etc.

- b) Next, ask students to imagine that they have a cold and need to take some medicine for a cough. Ask for volunteers to look at the label and answer the following questions:
- *How much medicine can you take at a time?* (4 teaspoonfuls)
 - *How often can you take this medicine?* (every 4 hours)
 - *How many times can you take this medicine within 24 hours?* (no more than 6 times)
 - *If you first took this medicine at 8 o'clock in the morning, at what time could you take it again?* (12:00 noon)
 - *If you took it at 10:00 in the morning, at what time could you take it again?* (2:00 pm)
 - *If you took it at noon?* (4:00 pm)
 - *If you took it at 7:30 in the evening?* (11:30 pm)

You may wish to point out that the medicine label **does NOT say that they NEED to take** the medicine every four hours. Rather, the important thing to remember is that they should not take it with less than four hours between doses.

Note to teacher: If your students are not very comfortable working with clocks, you may want to provide some additional practice for work with time intervals. For instance, you might want to have them work on a simple exercise such as, what time is it two hours after 10:00, what time is it three hours after 10:00, etc. This should be done before you move on to calculations that are more complex.

Next, ask students to look at question 1 on the **Cough Medicine Label Worksheet**. The question asks the students to imagine that they had a nasty cold and cough and needed to take some medicine. Students should imagine that they took this medicine at 7:00 in the morning. Ask students to take a few minutes to list the times when they could take the next five doses of the medicine again, if they needed to take it every four hours.

Review the answers as a class. Note that there may be a little variation during the night hours. The important things to remember are: 1) that medicine should not be taken less than 4 hours between doses, and 2) that a person should take no more than 6 doses within 24 hours.

7:00 am

11:00 am

3:00 pm

7:00 pm

11:00 pm

(sleep) or the person may wake up at 3:00 am, for example, and take some 7:00 am – begins a new 24 hour day

Ask students to look at question 2 on the **Cough Medicine Label Worksheet**. They should imagine that they have a 10-year-old daughter who comes down with a bad cold and cough. Ask students to note the appropriate dose for the girl and to list the times when they might give her cough medicine over the next 24 hours. Have students work independently and then ask volunteers to share their answers. (You may wish to remind students that if they have any questions or concerns about giving their child an over the counter medicine, they should talk to a pharmacist or pediatrician.)

(Dosage: 2 teaspoonfuls; times may vary - possible answers include 3:00 pm, 7:00 pm, 11:00pm, 7:00 am, 11:00am, 3:00 pm)

3. **Prescription Medicine Dosage: Large Group Review and Pair work Practice.**

Reassemble the whole class and distribute the following handouts:

- Antibiotic Prescription Label
- Marlina's Medicine Schedule Worksheet
- Marlina's Medicine Schedule (3 pages).

Review the parts of the label. Be sure to answer any questions that students have about information on the label. Make clear that Ampicillin is given in different doses to treat different problems. This is just one example of a possible prescription for it.

Note to teacher: You may want to review the information on the label, depending on students' familiarity with prescription labels.

Students may have questions about the following directions:

1 *Finish all of this medication unless otherwise directed by physician.*

2 *Take with full glass (8 oz.) of water.*

Point out that the word "medication" is often used in place of the word "medicine." Ask for a volunteer to explain why the following items might be included on a prescription label. If students are not sure, share the following:

#1: It is important to complete antibiotic prescriptions for two reasons:

- 1) The bacteria causing the infection may not be completely killed in less than the prescribed time.
- 2) The bacteria that the drug is trying to kill may become resistant to the drug. This means that that antibiotic will not work against that kind of infection in the future. (However, a person might still be able to use the same antibiotic to treat a different kind of infection later on.)

#2: It is important to drink water with antibiotics and other pills because water helps the medicine dissolve more quickly and get into your system faster. In some cases, medicines might do damage to the stomach if they sit un-dissolved for too long.

Next, focus on timing. Ask volunteers to answer the following questions:

- *How often can Marlena take this medicine?* (every 4 to 6 hours – not less than 4, not more than 6 hours apart)
- *How is taking this medicine different from taking the cough medicine we looked at earlier?* (It must be taken around meals.)
- *For how many days should Marlena take this medicine?* (5 days)

Ask students to work with a partner to carry out two tasks, as noted on the worksheet:

Task 1: Plan Marlena’s schedule for taking her pills for the first day

Task 2: Plan Marlena’s schedule for the next 4 days

You should circulate among pairs to see if anyone has questions or difficulties.

4. **Combine medicine schedules: Large Discussion and Pair/Small Group Work**

Ask students if they or any one they know are dealing with more than one chronic disease. Ask for some examples of the diseases people might have to manage and take medicine for. (e.g., heart problem, blood pressure, and diabetes).

Point out that in such cases, when a person has to manage several diseases, scheduling medicines can be complicated. People may need to take medicines at different times. Use the board to write out the following example for someone who takes 2 kinds of pills.

Pill 1 should be taken twice a day, every 12 hours.

Pill 2 should be taken three times a day, every 4-6 hours.

(Note that the pills may be taken at the same time.)

Ask students to work in pairs for 5 minutes to plan times for taking each pill. After 5 minutes ask three to four volunteers to list possible answers on the board and have the class review answers for accuracy. Answers might be as follows:

<u>Pill 1</u>	<u>Pill 2</u>	
8:00 am	8:00 am	8:00 am
8:00 pm	12:00 pm OR	1:00 pm
	4:00 pm	6:00 pm

Next, distribute **Lillian’s Medicine Schedule Worksheet** (1 page). Now ask students to look at the case of Lillian, who takes different medicines for two diseases. Lillian needs to take medicine every day for both asthma and diabetes. She uses one inhaler and takes a pill to treat her asthma. She takes one pill to treat her diabetes.

Lillian's instructions for taking her medicines are as follows:

- **Asthma Pill** (Theophylline with Montelukast Sodium): Take one pill in the evening.
- **Inhaler** (Triamcinolone acetonide): Inhale 2 puffs every 6 to 8 hours. Wait at least 1 minute between puffs.
- **Diabetes Pill** (Glyburide): Take one pill twice a day, one at breakfast and one at dinner.

Review the information given about Lillian on the top of the worksheet. Ask if any students are familiar with an inhaler. If not, explain that it is a small tool people use to breathe medicine into the lungs.

Point out that students do not need to learn the medicine names on the worksheet. They should focus on the different kinds of schedules required for the different medicines.

Ask pairs to create a schedule for Lillian to take her medicines. You should circulate among pairs to see if students have any questions or difficulties. If necessary, review some answers with the entire class before moving on to the final activity.

5. **Sharing strategies for remembering medicine: Large Group Brainstorm**

Reassemble the large group and ask students to brainstorm ways of remembering to take medicines on time.

Possible responses:

- *I put my medicine near the bed so I see it everyday.*
- *I put a note saying "TAKE MEDICINE" on my bathroom mirror.*
- *I set my alarm on my watch to remind me to take medicine.*

Additional suggestions are located in an optional handout, **Tips for Remembering to Take Medications**, included at the end of this lesson.

6. **Conclusion and Review**

To conclude the lesson, review what you accomplished in this lesson:

- You looked at two different kinds of labels – over-the-counter and prescription – to find information on how much medicine to take and when to take it.
- You practiced making schedules for taking medicine.
- You shared some useful ideas for remembering to take medicine.

Ask if students have any questions on what you covered today.

Point out that there are different ways to organize and record activities such as taking medicine. Ask students to look at their worksheets. Call attention to the different formats for creating a medicine schedule:

- A list of times with a number for each dose to be taken (Cough Medicine Label Worksheet).
- A list with times and activities (Antibiotic Prescription Label and Asthma and Diabetes Medicine Schedule Worksheet).
- A printed schedule of times that you fill in (Marlena's medication schedule).

Point out that these formats can be used to keep track of other activities, such as eating and exercise.

Follow-Up Activities

1. **Develop Schedules:** Create your own personal schedule for a typical day. You need not note every activity. Include major activities such as waking or going to bed, eating meals, going to work or school, taking medicines, and other activities like exercise, reading, housework, etc. Use the **Daily Schedule handout** to record your answer.
2. **Interview Practice:** Interview someone you know who regularly takes medicines. Ask them questions about what times they take pills and do other things like eat, go to work, go to bed, etc. Create a schedule for the person, using the **Interview Schedule** handout provided.

Other Follow-up Ideas

You may want to build on this lesson in a number of ways. You could develop a lesson around measuring doses using different tools, such as cups, spoons, and syringes. Alternatively, you could develop a lesson that pertains to the pharmacy. You could focus on questions to ask a pharmacist, using the automated system to order refills, etc.

ESOL Tips

It is essential to assess how much your ESOL students know about medicine labels before teaching this lesson. Be sure to spend time walking through the parts of the label since some of the language or abbreviations used in this lesson may be too difficult without some prior work. Some ESOL students will be able to 'get' the timing aspects of the lesson without a problem, but they may not know how to describe in English what they are doing. Expressions like twice a day, otherwise directed, tsp vs. Tbs, etc., may be new to learners.

Technology Tips

If you have access to computers and your students are familiar with spreadsheet programs like Excel, you might want to have students create schedules using that type of software. The Web sites listed under **Additional Resources** can also serve as the source of reading, writing, and discussion activities.

Additional Resources

- ✓ *Read the Label*. New York: Council on Family Health, 1997.
This is a 50-page ESOL teacher's guide that includes lessons for beginning, intermediate, and advanced level students. It teaches why it is important to read medicine labels, how to do so, and how to ask the pharmacist for help. The guide includes dialogues, key concepts and vocabulary, question-and-answer exercises, and an extensive teacher's glossary.
Available from: Council on Family Health; 225 Park Avenue South, Suite #1700; New York, NY 10003; phone (212) 598-3617 for single copy; phone (212) 725-3200 for larger quantities; free.

Web sites on reading medicine labels

- ✓ Over the Counter - Understand Your Medicine Labels (3 pages - follow the links)
<http://www.nclnet.org/OTClables/Labels.html>
- ✓ The New Over-the-Counter Medicine Label: Take a Look
<http://www.fda.gov/cder/consumerinfo/OTClablel.htm>

Web sites on taking medicines safely

- ✓ Taking Medicines Safely at NIH Senior Health
<http://nihseniorhealth.gov/takingmedicines/takingmedicinessafely/01.html>
This site has sections on how to take medicines and managing medicines. The site includes lots of good information, such as questions to ask a doctor about your medications, a simple medication record, and an on-line quiz to check understanding of the material. The FAQs (Frequently Asked Questions) are informative too. Some information is presented through video clips.
- ✓ Tips for Taking Medicine
<http://www.mamashealth.com/doc/medicine.asp>
- ✓ Taking Medications Safely
http://www.womensheartfoundation.org/content/HeartWellness/medication_safety.asp

Cough Medicine Label

<p>Drug Facts</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><i>Active Ingredients</i> (in each 5 mL)*</td> <td style="width: 50%; border: none;"><i>Purposes</i></td> </tr> <tr> <td style="border: none;">Dextromethorphan HBr 5mg.....</td> <td style="border: none;">Antitussive</td> </tr> <tr> <td style="border: none;">Guaifenesin 100mg.....</td> <td style="border: none;">Expectorant</td> </tr> </table> <p>*5mL = one teaspoonful</p> <p>Uses</p> <ul style="list-style-type: none"> • Temporarily relieves cough due to minor throat and bronchial irritation due to the common cold • Helps loosen phlegm (mucus) and thin bronchial secretions to make coughs more productive <p>Warnings Do not use if you are now taking a prescription monoamine oxidase inhibitor (MAOI) (certain drugs for depression, psychiatric, or emotional conditions, or Parkinson’s disease) or for 2 weeks after stopping the MAOI drug. If you do not know if your prescription drug contains an MAOI, ask a doctor or pharmacist before taking this product.</p> <p>Ask a doctor before use if you have</p> <ul style="list-style-type: none"> • Cough accompanied by excessive phlegm (mucus) • Persistent or chronic cough such as occurs with smoking, asthma, chronic bronchitis, or emphysema <p>Stop use and ask a doctor if</p> <ul style="list-style-type: none"> • Cough persists for more than 1 week, tends to recur, or is accompanied by a fever, rash, or persistent headache. These could be signs of a serious condition. 	<i>Active Ingredients</i> (in each 5 mL)*	<i>Purposes</i>	Dextromethorphan HBr 5mg.....	Antitussive	Guaifenesin 100mg.....	Expectorant	<p>Drug Facts (continued)</p> <p>If pregnant or breastfeeding, ask a health professional before use.</p> <p>Keep out of reach of children. In case of overdose, get medical help or contact a Poison Control Center right away.</p> <p>Directions ■ take every 4 hours ■ do not take more than 6 doses in 24 hours</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Adults and children 12 years of age and over</td> <td style="width: 50%;">Four (4) teaspoonfuls</td> </tr> <tr> <td>Children 6 to under 12 years of age</td> <td>Two (2) teaspoonfuls</td> </tr> <tr> <td>Children 2 to under 6 years of age</td> <td>One (1) teaspoonful</td> </tr> <tr> <td>Children under 2 years of age</td> <td>Ask a doctor</td> </tr> </table> <p>Other information Store at 59° to 77° F</p> <p>Inactive Ingredients caramel, citric acid, D & C red no. 33, edentate disodium, FD&C red no. 40, flavors, poloxamer 407, polyethylene glycol, propyl gallate, propylene glycol, purified water, saccharin sodium, sodium benzoate, sodium chloride, sodium citrate, and sorbitol solution.</p> <p>Questions? Call 1-800-123-4567 Monday to Friday, 9AM – 5PM EST</p>	Adults and children 12 years of age and over	Four (4) teaspoonfuls	Children 6 to under 12 years of age	Two (2) teaspoonfuls	Children 2 to under 6 years of age	One (1) teaspoonful	Children under 2 years of age	Ask a doctor
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Dextromethorphan HBr 5mg.....	Antitussive														
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Adults and children 12 years of age and over	Four (4) teaspoonfuls														
Children 6 to under 12 years of age	Two (2) teaspoonfuls														
Children 2 to under 6 years of age	One (1) teaspoonful														
Children under 2 years of age	Ask a doctor														

Cough Medicine Label Worksheet

1) Imagine that you have a nasty cold and cough.

What is the correct dose for an adult? _____teaspoonfuls

If you take your first dose of cough medicine at 7 am, at what times can you take the next five doses (if you take the medicine every four hours)?

1. 7:00 am_____
2. _____
3. _____
4. _____
5. _____
6. _____

2) Your ten-year-old daughter comes down with a bad cold and cough. What is the correct dose for her?

_____ teaspoonfuls

If you begin giving her the cough medicine when she gets home from school, at what times could you give it to her within 24 hours?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Antibiotic Prescription Label

Marlena Perez went to see her doctor for a sinus infection. Her doctor gave her a prescription for an antibiotic. Here is the label on the medicine bottle.

	
Friendly Pharmacy PH. (987) 654-3210	
123 Healthy Way Livewell, WI 99999	
DR. F. CARLTON	
No. 0455825-333	Date: 1/12/05
MARLENA C. PEREZ 37 Easy Street, Livewell, WI 99999	
TAKE 3 TABLETS A DAY, EVERY 4 - 6 HOURS.	
*AMPICILLIN 250 MG	
QTY 15 DAYS SUPPLY 5 NO REFILLS – DR. AUTHORIZATION REQUIRED ORG DATE 1/12/05	

*Note: Ampicillin is used to treat bacterial infections. Prescription dosages may vary. The dosage here is just an example.

The medicine bottle also had the following three stickers on it:

IMPORTANT: Finish all of this medication unless otherwise directed by physician.

Take with full glass (8 oz.) of water.

To be taken on an empty stomach:
 ½ hour before or 2 hours after meals

Marlena's Medicine Schedule

6:30 am <i>WAKE UP</i>	6:30 pm
7:00 am	7:00 pm
7:30 am	7:30 pm
8:00 am	8:00 pm
8:30 am	8:30 pm
9:00 am	9:00 pm
9:30 am	9:30 pm
10:00 am	10:00 pm
10:30 am	10:30 pm
11:00 am	11:00 pm
11:30 am	11:30 pm
12:00 pm	12:00 am
12:30 pm	12:30 am
1:00 pm	1:00 am
1:30 pm	1:30 am
2:00 pm	2:00 am
2:30 pm	2:30 am
3:00 pm	3:00 am
3:30 pm	3:30 am
4:00 pm	4:00 am
4:30 pm	4:30 am
5:00 pm	5:00 am
5:30 pm	5:30 am
6:00 pm	6:00 am

Lillian’s Medicine Schedule Worksheet

Lillian needs to take medicine every day for both asthma and diabetes. She needs to take a pill and use one inhaler to treat her asthma. She also must take a pill to treat her diabetes. Lillian’s instructions for taking her medicines are as follows:

- **Asthma Pill** (Theophylline with Montelukast Sodium): Take one pill in the evening.
- **Inhaler** (Triamcinolone acetonide): Inhale 2 puffs every 6 to 8 hours. Wait at least 1 minute between puffs.
- **Diabetes Pill** (Glyburide): Take one pill twice a day, one at breakfast and one at dinner.

Use the space below to create a daily schedule for Lillian to take her medicine. Start from the time she wakes up in the morning until she goes to bed. List the times when she eats her meals and the times when she needs to take her medicines. Sometimes she might eat a meal and take medicine at the same time.

Time	Activity (meals and medicine)
<u>7:00 am</u>	<u>Eat Breakfast</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Daily Schedule Worksheet

Student's name: _____

6:30 am	6:30 pm
7:00 am	7:00 pm
7:30 am	7:30 pm
8:00 am	8:00 pm
8:30 am	8:30 pm
9:00 am	9:00 pm
9:30 am	9:30 pm
10:00 am	10:00 pm
10:30 am	10:30 pm
11:00 am	11:00 pm
11:30 am	11:30 pm
12:00 pm	12:00 am
12:30 pm	12:30 am
1:00 pm	1:00 am
1:30 pm	1:30 am
2:00 pm	2:00 am
2:30 pm	2:30 am
3:00 pm	3:00 am
3:30 pm	3:30 am
4:00 pm	4:00 am
4:30 pm	4:30 am
5:00 pm	5:00 am
5:30 pm	5:30 am
6:00 pm	6:00 am

Tips for Remembering to Take Medications*

- Schedule medication (medicine) around routine daily activities, such as meals, tooth brushing, etc.
- Use an alarm, such as on a small clock or watch.
- Place reminder notes in places where you will see them. Some examples are: doorknobs, mirrors, in the kitchen (but not over the stove!). Remember -- it's not a good idea to store medications in the bathroom since the warmth and moisture of the room might damage some medication.
- Put medications next to things you will use around the time you need to take them, such as next to your toothbrush or on your nightstand. Be sure to keep medicines where children can't reach them!
- Have a friend or family member help to remind you to take medication.
- Color-code medication bottles (with highlighted pens or colored stickers) or put large print labels on them. Never put medications in containers meant to hold other things, especially food or beverage containers. Keep medicines in their original child-proof containers.
- Draw a large clock and put color codes on it for each medication matching the colors you put on the bottles.
- Make sure you can see a clock or watch during the day.
- Create a chart listing the specific times when you need to take medications. Leave a place to check each one off as you take it.
- Plan ahead for vacations or other days that are not routine.
- Plan ahead 3-5 days, and have refills approved and filled before medications are gone.

* This list is adapted from *Ten Tips to Keep Up with Your Meds* found at http://www.thebody.com/pinf/whatsnew_600/treatment.html#10

Lesson 5: (GED) Language for Describing Symptoms

<p>Chronic Disease Management Task Addressed in this Lesson</p> <ul style="list-style-type: none"> Students will strengthen their ability to describe symptoms. <p>Skills Focus</p> <ul style="list-style-type: none"> Students will compare and contrast information from two reading passages. Students will develop their expressive communication skills for describing symptoms. <p>ABE/ESOL Level High-intermediate to advanced GED</p> <p>Time 2 hours (2 one-hour classes)</p> <p>Materials</p> <ul style="list-style-type: none"> Student Handouts Blackboard or poster paper Markers 	<p>Purpose</p> <p>This lesson is designed to strengthen students' descriptive skills. Students are given an opportunity to discuss possible problems when they try to describe symptoms, particularly when the symptoms, such as pain, are not readily visible to the doctor. Students expand their expressive language skills for describing symptoms.</p> <p>Connection to GED Language Arts - Reading</p> <p>Tell students that this lesson addresses several skill areas assessed on the GED Language Arts - Reading section. The skills include the comprehension and interpretation of poetry, the ability to compare and contrast information, and the ability to identify literary elements, such as tone, point of view, and figurative language.</p> <p>Background information for the teacher</p> <p>This lesson focuses on symptoms and signs of chronic disease. It is useful to think of symptoms as what the patient feels and signs as what the doctor observes. Symptoms, like fatigue and pain, are subjective experiences. The doctor cannot always measure or observe symptoms. Only the patient knows exactly what his or her symptoms feel like. Many people have problems when they try to translate a feeling into words. Doctors try to understand the nature and pattern of a patient's symptoms in order to make a diagnosis.</p> <p>An accurate description of symptoms helps a doctor make a quick and early diagnosis. For this reason, it is critical that students understand their symptoms and can describe them as clearly and accurately as possible.</p> <p>What can ABE teachers do to strengthen their students' communication skills in these areas? One approach is to expand the students' descriptive language skills, specifically their knowledge of adjectives and figurative language devices.</p>
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Students can learn how to use words to paint a picture of what they are feeling in the mind of their doctor.

The focus on descriptive language in this lesson builds on findings from a study based in Canada, which examined the verbal descriptions of pain among cancer patients (Gagel, 1988).^{*} The study showed that patients with more years of education (high school and beyond) were more likely to use affective and sensory phrases and more figurative language (e.g., similes and metaphors) to describe their pain than were patients who had not completed high school.

Steps

1. Explain to the students that the goal of the day's lesson is to improve their ability to describe symptoms when they speak to a doctor or nurse. In addition, tell the students that they will be working on the following skills that are assessed on the Language Arts-Reading section of the GED test: comprehension of poetry, compare/contrast skills, vocabulary development, and figurative language.
2. Write the following quotation on the board.

There is the poverty of language...the merest schoolgirl when she falls in love has Shakespeare or Keats to speak her mind for her; but let a sufferer try to describe a pain in his head to a doctor and language at once runs dry. (By Virginia Woolf, author of "On Being Ill")

Ask the students:

- In your opinion, what is Virginia Woolf saying about the relationship between language and pain?
- What does the phrase "poverty of language" mean to you?
- Do you agree with her ideas about pain? Why or why not?
- Does this quotation make you think about your own experiences talking to doctors? If so, share your thoughts with the class.
- What makes language "run dry" when a patient talks to a doctor? (In other words, what gets in the way when we try to describe symptoms?)

You may want to facilitate a group discussion in response to any of the above questions or assign a short written response (e.g., free-write or personal essay). Ask students to share their responses with the whole class.

3. Explain that symptoms, such as fatigue and pain, are subjective experiences. This means that the doctor cannot always measure or observe symptoms. Only the patient

^{*} See *Verbal Description of Pain by Patients with Cancer*, a master's thesis completed by Mike Peter Gagel in 1988 at the University of British Columbia, online at <http://healthpro.bc.ca/thesis/introduction.html>

knows exactly what his or her symptoms feel like. Doctors try to understand the nature and pattern of a patient's symptoms in order to make a diagnosis. An accurate description of a symptom helps a doctor make a quick and early diagnosis.

Note to teacher: These ideas may naturally come up as part of the discussion in response to the Woolf quotation. If so, there is no need to repeat the students' comments. However, if these ideas do not come up, you can move the discussion along by explicitly calling attention to these ideas. Be sure to invite the students to respond after you present these ideas about the subjectivity of symptoms.

4. Explain that an important goal when talking to a doctor is to paint a picture in the doctor's mind about what you, as the patient, are feeling. Tell the students that they will read two poems written by patients who suffer from arthritis. Indicate that this lesson will help students see how a rich vocabulary and good expressive communication skills enable a person to paint an accurate picture of their symptoms.

Note to teacher: Teachers and students should understand that students are not expected to become poets in order to communicate effectively with their doctors! Poetry is used in this lesson because it provides rich context to examine descriptive language. Poetry is also used because it is an important genre assessed on the GED.

5. Distribute the poem, *sometimes i'm* (**Student Handout A**).
6. **Distribute Student Handout B** for discussion questions.

Follow-up Activities

A) Journal Writing Activity

Student Handout C contains additional quotations on the subject of pain. Ask students to choose one and free-write a journal entry in response.

B) Vocabulary Development

With the students, create semantic maps, developing categories for related words used to describe symptoms. These maps can be organized around symptoms associated with a particular illness (e.g., cold, asthma), a part of the body (e.g., stomach), or a particular kind of symptom (e.g., headache, fever, tiredness).

C) Interview Activity

Interview someone who suffers from chronic pain, e.g., someone with chronic back problems or arthritis. Interview them about their symptoms and write down how they describe their symptoms. Share responses in class.

ESOL Teaching Tips

Using poetry in adult ESOL classrooms provides students with a rich opportunity to study language use, rhythm in language, and poetic devices (e.g., metaphors). The poem in this lesson make use of everyday language (as opposed to literacy language), which may make it easier for adult ESOL students to read and understand. Additionally, the poem *sometimes i'm* contains a predictable language pattern (the SUBJECT-VERB “i'm” followed by a NOUN which expresses how the author feels about her arthritis). Call the students’ attention to this pattern to ease their reading and comprehension. You may wish to give students the following prompts:

Sometimes I'm...
I'd rather be...
But mostly I'm ...

Ask the students to compare themselves to an object or animal by completing the sentences with the name of an object or animal. The goal is to try to convey a state of mind, particular emotion, or feeling. For example,

Sometimes I'm a mouse.
I'd rather be a lion.
But mostly I'm a doorbell.

You can also ask the students to expand their sentences using the same syntactic pattern (subject + verb + noun, followed by participial phrase) used in the poem.

Sometimes I'm a mouse, staring out of a small hole in the corner of a larger house.
I'd rather be a lion, roaring so loud that people cover their ears.
But mostly I'm a doorbell, calling out only when pushed

Technology Tips

After completing this lesson, students may wish to explore information on pain available on the MedLine Plus Web site at <http://www.nlm.nih.gov/medlineplus/pain.html>. This source will provide links to information about diagnosis and treatment of pain. This source also provides a link to a useful diagram called the *Pain Drawing* produced by the American Academy of Physical Medicine and Rehabilitation available at <http://www.aapmr.org/condtreat/pain/paindrawing.htm>. This drawing features a simple sketch of the human body. A patient is asked to mark on the picture those areas of the body where she or he feels pain. The patient is also asked to use symbols to indicate the intensity of the pain. The diagram applies some of the vocabulary introduced in this lesson and provides students with a useful tool they can use with their own doctors.

WebMd Health is another source that provides some basic information about pain, diagnosis, and treatment, available at http://my.webmd.com/content/article/100/105615.htm?z=1826_00000_0000_rl_01

Student Handout A

sometimes i'm*

*by Liz Hall-Downs
for Christine Ferrari*

sometimes i'm these cockatoos
flashing my sulphur crest and screaming

sometimes these unripe olives
bitter and small amongst silvered leaves

sometimes i'm that raven, too much to say
and saying too loudly, caw in the naked tree

and sometimes i'm currawong, defiant song
chasing everyone else away

i'd rather be these rocks
solid, serene, slow changing
or that red-breasted wren, twitching my tail
alert, but careful, delighting the new spring

i'd rather be that shy wallaby
self-protective, scratching my sleekness

then bounding away to where green shoots grow
alert and silently watching

but mostly i'm that old hills hoist
skewed and broken and rusting
my lines all stretched and sagging
useless for holding the washing

and thankful for the friend
who'll call maintenance in
to straighten me out again

* Previously published online in *The Drunken Boat* (<http://www.thedrunkenboat.com/arthritis.html>.)
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**Student Handout B:
Discussion questions for the poem, *sometimes i'm***

1. How does the poet feel about having arthritis?
2. In the poem, underline key phrases and words that help you understand how the poet feels as a result of her arthritis. Be sure to state in your own words what you think these underlined phrases and words mean.
3. In the poem, identify any figurative language (similes, metaphors) that the poet uses to describe her experiences with arthritis. Why do you think the author chose these similes or metaphors to describe her experiences?

About your own experiences

Think about the last time you suffered from a headache, backache, or the flu. Alternatively, think about the last time you had to go to the emergency room or had to spend time as a patient in a hospital. Describe how you felt using five adjectives and at least one simile or metaphor. Work with a partner and use a thesaurus to include at least two new vocabulary words in your description.

Student Handout C

Naomi Wolf, U.S. author of best-selling book *The Beauty Myth*

Pain is real when you get other people to believe in it. If no one believes in it but you, your pain is madness or hysteria.

Emily Dickinson, U.S. poet

Pain – has an element of blank –
It cannot recollect
When it begun – or if there were
A time when it was not.

John Locke, British philosopher

Joy and pain, like other simple ideas, cannot be described or their name defined... we get to know them only by experience.

Miguel Cervantes, Spanish author

When the head aches, the whole body is out of tune.

Lesson 6: (GED) Using Bar Graphs to Learn about Literacy and Health Outcomes

<p>Chronic Disease Management Task Addressed in this Lesson</p> <ul style="list-style-type: none"> Learners will increase their awareness of the link between literacy levels and health outcomes related to chronic diseases. <p>Skills Focus</p> <ul style="list-style-type: none"> Learners will learn how to examine data in a bar graph. Learners will learn how to compare and contrast information in side-by-side bar graphs. <p>ABE/ESOL Level Intermediate to advanced GED</p> <p>Time 1 ½ hours</p> <p>Materials</p> <ul style="list-style-type: none"> Student handouts (3 pages) Appendix A <p>Vocabulary Percentage Data Bar graph Interpret</p>	<p>Purpose</p> <p>This lesson has two main objectives: (1) to teach learners to interpret a bar graph and (2) to introduce learners to a relationship between literacy and health outcomes. Learners have an opportunity to share their reactions to data presented in a bar graph that indicate that adults with low literacy skills are less likely to understand medical instructions. Learners will develop their document literacy skills, particularly with respect to the way graphs show comparisons. In the follow-up activities to this lesson, learners have an opportunity to practice developing their own bar graphs.</p> <p>Connection to GED Skills</p> <p>You may wish to point out that nearly half of the questions on the GED Test in the Social Studies, Math, and Science sections make use of graphs (pie graphs, line graphs, bar graphs). This lesson is designed to help learners interpret graphs and present information in graphs. See the Harcourt Achieve’s Web site (www.gedpractice.com) for several sample GED test items that feature various kinds of graphs.</p> <p>Steps</p> <ol style="list-style-type: none"> Warm-up. Introduce this lesson by posing the following questions to the whole class: <ul style="list-style-type: none"> What is a graph? What are graphs used for? What kinds of graphs have you seen? What information do we usually find in graphs? <p>You may wish to show examples of various kinds of graphs found in newspapers, magazines, or workplace documents. Examples of graphs will help the learners begin to understand different ways of presenting information. Point out to the class that the focus of the day’s lesson is on one kind of graph – bar graphs.</p>
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2. ***Cooperative learning exercise: Analyze a bar graph***

Organize the learners into groups of three to four. This cooperative learning exercise provides learners with a **task** (in this case, analyzing a bar graph) and a **group structure** for carrying out the task. The group structure includes the assignment of one of four roles to each learner in the group:

Facilitator: This person helps the group by paying attention to how the group is interacting. This person also makes sure that everyone has an opportunity to speak or ask questions. If there is a disagreement, this person will help clarify the points of disagreement and offer suggestions for resolving the disagreement.

Recorder: This person takes notes on the group's responses to the questions on the Student Handout.

Time keeper: This person makes sure that the group stays on task to complete the worksheet in the allotted time (35 minutes).

Presenter: This person summarizes and presents some highlights from the group's discussion to the whole class during the large-group discussion that follows this small-group work. Specifically, the presenter will report his or her group's responses to questions #10 and 11 on the student worksheet. These two questions elicit the learners' interpretations and personal reactions to the information in the bar graphs.

Note to teacher: If learners are not familiar with cooperative learning formats, you may wish to explain that this kind of small-group work provides learners with an opportunity to examine a topic in-depth by listening to other people's ideas. Learners can share their ideas, problem-solve with others, and work with others to make a decision or reach consensus. Cooperative learning helps learners develop important group interaction skills and critical thinking skills.

If learners work in groups of three, the facilitator can also act as the time keeper. We recommend that learners work in groups no larger than four. It is important that you allow learners to work in groups to figure out their preferred roles.

3. ***Analyze the graph and answer questions: Small group work (35 minutes)***

Give each learner a copy of the following handouts:

- Handout: Using a Bar Graph to Learn About Literacy and Health Outcomes
- Bar Graph Example (Figure 1)
- Worksheet: Questions for Interpreting a Bar Graph

Ask each group to analyze the bar graph (Figure 1) and answer the questions about the graph on the worksheet.

The questions are designed to help learners understand how to read a bar graph (questions #1 - 9). Learners also have an opportunity to react to the health

information presented in the bar graph (questions #10 - #11). Note: An answer key to the questions is provided in a separate handout for the teacher.

Note to teacher: The bar graphs in this lesson are based on a 1998 study conducted with 483 asthma patients in an urban public hospital in Atlanta, Georgia. The study examined the link between patients' reading skills and their asthma knowledge and self-care skills (e.g., how to use an inhaler). The Rapid Estimate of Adult Literacy in Medicine (REALM) was used to assess patients' reading skills. 65 patients were found to read at or below 3rd grade, 130 patients read between 4th and 6th grade, 157 patients read between 7th and 8th grade, and 131 patients read at a high school level. An oral questionnaire was also used to assess patients' knowledge of asthma and self-care skills. The source of the study is Williams, M.V., Baker, D.W., Honig, E.G., Lee, T.M., & Nowlan, A. (1998). Inadequate literacy is a barrier to asthma knowledge and self-care. *CHEST*, 114, 4, 1008-1015.

4. **Large group discussion: Report back on small-group discussions**

Bring the class together and ask the presenter from each group to share their group's responses to questions #10 and #11 with the class. Allow the class to respond to each other's comments and ask questions about the graph.

Follow-up Activities

A. **Writing exercise: More practice interpreting bar graphs**

The appendix to this lesson provides an additional bar graph (Figure 2) which illustrates more data about the relationship between literacy levels and patients' knowledge about asthma. As a homework assignment, ask students to write a two-paragraph essay in reaction to the graph by answering the following two questions.

What does this graph tell me?

Write a short description (1 paragraph) of the information in the bar graph.

What is my opinion about the information in this bar graph?

Write a personal reaction (1 paragraph) to the information in the bar graph.

B. **Graphing exercise: Survey people with chronic diseases**

Ask learners to create their own survey questions about people's experiences understanding and following a doctor's instructions. Some possible survey questions include:

- How well do you feel you understand your doctor's instructions about the medicines you are taking?

Choose from:

Very Well, Moderately Well, Somewhat Well, Not Well at All

- Who do you go to for help if you do not understand how to take your medicines?
Choose from:
Medical staff, Family member/Friend, Internet, Nobody, Other
- What problems have you experienced because of confusion about your medicines?
Choose from:
Missed a dose, Had a bad reaction, Symptoms got worse, Other

Learners survey 10 people and then use their survey information to create bar graphs illustrating the numbers of people who responded in the various categories. Learners can share and discuss their bar graphs in class. See Technology Tips below for information on a Web-based tool you can use to create graphs.

ESOL Teaching Tips

You may wish to spend time talking about asthma with ESOL learners so they understand: (1) that asthma is a common chronic illness in the U.S.; and (2) that, in general, all asthma patients need to take medicine, monitor their breathing, and see a doctor on a regular basis. In addition, you may wish to ask ESOL learners to bring in examples of graphs from newspapers or magazines to jumpstart the discussion about graphs and their purposes.

You may also wish to provide ESOL learners with phrases to help them describe and interpret what they see in the bar graphs, such as:

- *The y-axis indicates that...or The x-axis shows that...*
- *According to the graph, ...or Based on this graph, ...*
- *Based on this graph, ___ percent of patients who read at a _____ level understand that people with asthma should seek help from a doctor even if they are not having an attack.*
- *In my opinion, I think that this graph tells us that...*
- *I think that the information in this graph is (interesting/shocking/not surprising) because....*

Technology Tips

Create a Graph is an online tool that enables learners to input their own data (e.g., graph title, axis labels, and data values) and generate different types of graphs. This Web site also contains examples of different types of graphs. See the National Center for Education Statistics at <http://nces.ed.gov/nceskids/graphing/>

Note that you may also use Microsoft Excel to input data and generate graphs.

Handout:
**Using a Bar Graph to Learn About Literacy
 and Health Outcomes**

Introduction

For this assignment, you should work in groups of three to four people. Each person in the group will take on one of the following roles:

Facilitator: This person helps the group by paying attention to how the group is interacting. This person also makes sure that everyone has an opportunity to speak or ask questions. If there is a disagreement, this person will help clarify the points of disagreement and offer suggestions for resolving the disagreement.

Recorder: This person takes notes on the group's responses to the questions on the Student Handout.

Time-keeper: This person makes sure that the group stays on task to complete the worksheet in the allotted time (35 minutes).

Presenter: This person will summarize and present some highlights from the group's discussion to the whole class during the large-group discussion that follows this small-group work. Specifically, the presenter will report his or her group's responses to questions #11 and #12 on the student worksheet. These two questions elicit the learners' interpretations and personal reactions to the information in the bar graphs.

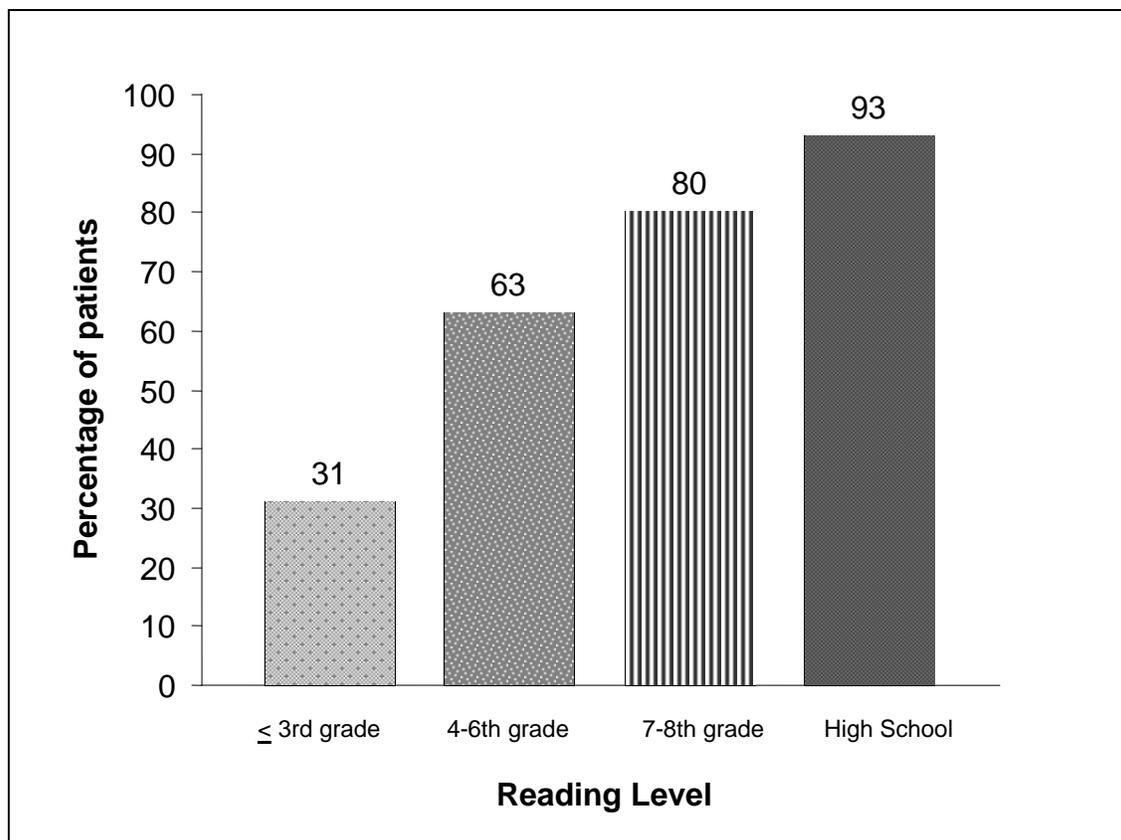
Work with your group members to figure out who will carry out each role. If your group only has three members, the facilitator can also serve as the time-keeper.

Role	Name of person in group
Facilitator	
Recorder	
Time-keeper	
Presenter	

Bar Graph Example (Figure 1) *

Instructions: Study the bar graph below and work with your group to answer the questions on the worksheet.

Figure 1: Percentage of asthma patients who know that they need to see their doctor about their asthma even if they are *not* having an asthma attack.



* The data used in this graph came from a study by Williams, M.V., Baker, D.W., Honig, E.G., Lee, T.M., & Nowlan, A. (1998). Inadequate literacy is a barrier to asthma knowledge and self-care. CHEST, 114, 4, 1008-1015.

Worksheet: Questions for Interpreting a Bar Graph

Instructions: Use the bar graph to answer the questions below.

1. Use the words below to label the parts of the graph.

Graph title *x-axis (horizontal)*
Bars *y-axis (vertical)*

2. What scale is used in the bar graph? (*Hint:* At what number does the vertical axis begin on each graph? At what number does it end?)
3. To what do the numbers on the y-axis refer? (i.e., what do the numbers on the vertical axis mean?)
4. What do the labels on the x-axis mean?
5. What do the bars in the graph tell you?
6. According to the graph in Figure 1, which group of asthma patients understood the *most* that people with asthma should see a doctor even if they are not having an asthma attack? Which group of patients *did not really understand* that people with asthma should see a doctor even if they are not having an asthma attack?
7. From the data in the graphs, can you figure out the exact number of patients who knew that people with asthma should see a doctor even if they are not having an attack?

8. Why do you think the bar graphs use percentages on the y-axis?

9. What does the increase *across* the bar heights in the graph mean?

10. Are you surprised by the information in the graph? Why or why not?

11. What do you think is the most important message to remember about the information in the graph? Discuss your ideas with your group members and try to agree on one or two most important messages.

Answer Key for the Teacher **Worksheet: Questions for Interpreting a Bar Graph**

Answer Key to Questions about Figure 1.

1. Use the words below to label the parts of the graph.

Graph title x-axis (horizontal)
Bars y-axis (vertical)

2. What scale is used in the bar graph? (*Hint: At what number does the vertical axis begin on each graph? At what number does it end?*)

A scale is the range of values that are used on the y-axis (the vertical axis, sometimes called the frequency axis). The scale used in both graphs begins at 0 (zero) and ends at 100.

3. To what do the numbers on the y-axis refer? (i.e., What do the numbers on the vertical axis mean?)

The numbers are percentages. They represent the amount of people who understand that patients need to see their doctor about their asthma even if they are not having an attack.

4. What do the labels on the x-axis mean?

The labels (for example, $\leq 3^{\text{rd}}$ or $4^{\text{th}}-6^{\text{th}}$) are reading levels. The label $\leq 3^{\text{rd}}$ refers to people who read at a third grade level or lower. The label $4^{\text{th}}-6^{\text{th}}$ refers to people who read at a grade level at or between 4th and 6th grade, and so on.

5. What do the bars in the graph tell you?

The bars tell you the amount of patients at each reading level who understood that people with asthma should see a doctor about their asthma even if they are not having an attack. The amounts are measured in percent. Taller bars mean higher percents, in other words, more patients understood this fact about asthma, while shorter bars mean lower percents, and in other words, fewer patients understood this fact about asthma.

6. According to the graph in Figure 1, which group of patients understood the *most* that people with asthma should get help from a doctor even if they are not having an asthma attack? Which group of patients did not really understand that people with asthma should get help from a doctor even if they are not having an asthma attack?

The height of each bar tells you the percent of patients who understood that people with asthma should see a doctor about their

asthma even if they are not having an attack. To figure out which group of patients understood this fact the most, we look for the tallest bar. The tallest bar in the graph is the one for the patients who read at a high school level. Likewise, to figure out which group of patients understood this fact the least, we look for the shortest bar. The shortest bar is the one for the patients who read at or lower than a third grade level.

7. From the data in the graphs, can you figure out the exact number of patients who knew that people with asthma should seek help from a doctor even if they are not having an asthma attack?

This may be a tricky question. The learners need to note that the y-axis reports percents, not exact numbers of patients. The graph does not tell us the total number of patients, so we cannot calculate the exact number of patients. We only know the different percentages of patients who understood this fact about asthma, not the exact number of patients.

8. Why do you think the bar graphs use percentages on the y-axis?

This question builds on the learners' responses to questions #5-#6. The learners need to note that the graphs do not report exact numbers of patients, only percentages of patients. These bar graphs show the relationship between patients' understanding about the need for regular care when you have asthma and their reading level. Because the bar graphs highlight this pattern (or trend), it is not necessary to report specific numbers of people.

9. What does the increase across the bar heights in each graph mean?

The increase in bar heights across the different reading levels suggests that patients at higher levels of reading ability are more likely to understand that going to a doctor about their asthma is important, even if they are not having an asthma attack. This suggests that patients at higher levels of reading ability are more likely to see a doctor for routine follow-up care even if they are not having symptoms. This question is meant to show the students that one important way to interpret bar graphs is to look for decreases or increases in bar heights.

10. Explain why you are or are not surprised by the information in the graphs.

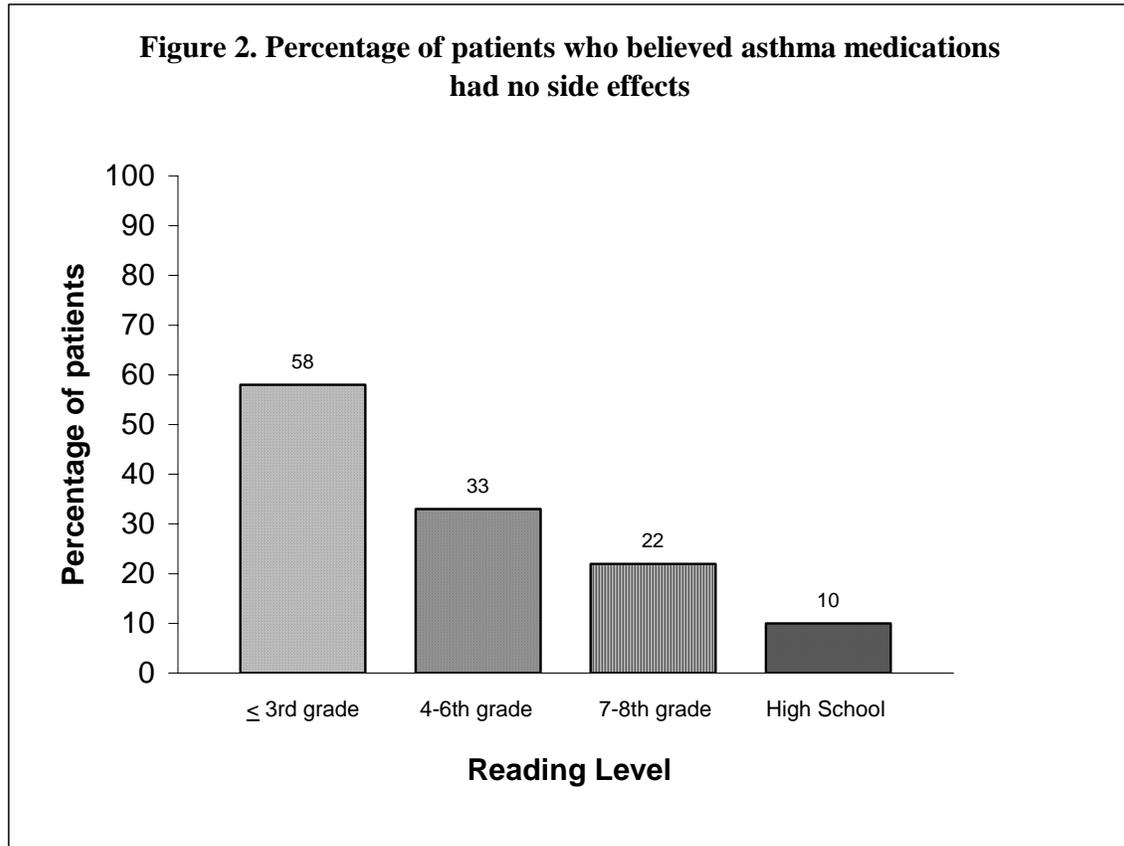
Encourage learners to rely on their own experiences with chronic disease and their knowledge about why getting medical care from a doctor is important if you have a chronic disease. A sample response might be: Sometimes people don't think they need to see a doctor if they don't feel sick. That's why they don't go for regular check-ups.

The doctor may think the patient knows about regular check-ups this because it was written down somewhere or he said it one time. But, what if the patient can't read well or doesn't understand English well? How will the patient know to schedule regular check-ups?

11. What do you think is the most important message to remember about the information in these graphs? Discuss your ideas with your group members and try to agree on one or two most important messages.
- *If you have a chronic disease, going to a see a doctor regularly, even when you are not feeling sick, can keep you from getting sicker.*
 - *Doctors should do their best to make sure all their patients understand the importance of regular checkups if they have a chronic disease. Doctors should take their time and speak clearly to make sure we understand. They should not just give us materials to read and assume we know what to do.*
 - *ABE teachers can help students improve their communication skills so they feel more confident about talking to their doctors and asking questions.*

Appendix A: Additional Materials for Using Bar Graphs

Figure 2 is a Bar Graph * you can use for follow-up activities. It features information about literacy and health outcomes.



* This data used in this graph came from a study by Williams, M.V., Baker, D.W., Honig, E.G., Lee, T.M., & Nowlan, A. (1998). Inadequate literacy is a barrier to asthma knowledge and self-care. CHEST, 114, 4, 1008-1015.

Lesson 7: (ESOL) Communication between Patients and Doctors *

<p>Chronic Disease Management Tasks Addressed in this Lesson</p> <ul style="list-style-type: none"> • Work effectively with a doctor • Examine barriers to good doctor-patient communication • Identify strategies for improved doctor-patient communication <p>Skills Focus</p> <ul style="list-style-type: none"> • Students will learn and practice language for communicating with doctor, including expressions for asking questions, making requests, stating preferences, and getting clarification. <p>ABE/ESOL Level Intermediate to advanced ESOL</p> <p>Time 1 hour 15 minutes</p> <p>Materials</p> <ul style="list-style-type: none"> • Student worksheet <p>Vocabulary</p> <p>confidence satisfied unsatisfied doctor's visit communication style Could you... Would you... I am concerned about... I have questions about...</p>	<p>Purpose</p> <p>This lesson is designed to help ESOL students examine barriers to good doctor-patient communication and understand reasons for good communication. As part of this lesson, students will learn and practice tips for improving communication with doctors.</p> <p><i>Note to teacher:</i> Helping students feel prepared for a visit to the doctor is one of the best tips for improving doctor-patient communication. It is very important to bear in mind that there are no “quick-fix” solutions to problems in this regard. This lesson will likely raise issues of very sensitive topics for your students, such as stereotyping about linguistic and ethnic minorities, racial inequities, cultural differences, or poor access to quality health care. These are serious and legitimate concerns about the barriers to reform in doctor-patient communication. You do not need to comment or feel as if you need to be an expert on health topics.</p> <p>Be clear about your goals as an ESOL teacher. You may wish to point out that you want to help students prepare for a doctor's visit. Also, use your students as resources as much as possible and draw from their own experiences and knowledge.</p>
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* This lesson is based on materials used by the *How to Talk to Your Doctor* community education forum, produced by Excellence Center to Eliminate Ethnic/Racial Disparities (EXCEED) at the Baylor College of Medicine, Houston, Texas. Material has been adapted with permission from the authors.

Steps

1. Going to the doctor: Large group discussion (30 minutes)

Tell the class that the day's lesson focuses on how doctors and patients talk to each other. To begin the lesson, ask the students to think about the last time they had a visit to the doctor. If students can't recall a recent visit to the doctor, they may wish to think about the last time they took a family member (e.g., an elderly parent, a child) for a visit to the doctor. Pose the following questions to the whole group. Be sure to write the questions on the board:

Questions:

- 1) *Did you feel confident talking about your health with your doctor?*
- 2) *Did the doctor take time to answer your questions?*
- 3) *Did you understand the doctor's explanations and instructions?*
- 4) *About how long did the visit last?*
- 5) *How satisfied did you feel after your visit?*

Choose one: *Very satisfied; Satisfied; Unsatisfied; Very unsatisfied*

You might elicit responses from the students by asking for a show of hands to indicate who did or did not feel confident talking about their health with their doctor.

- For question #4 about the length of the doctor's visit, survey the class by asking each student to share their answers, record the responses on the board, and then calculate the average length of time for the entire class.
- For question #5, survey the class and then tally the students' responses to figure out the most prevalent response. After students have had an opportunity to share their responses, invite the students to explain their answers in greater detail. They might talk about what made them feel confident/satisfied or not confident/unsatisfied.
- Generate a list of Things that make me feel not confident or unsatisfied about the doctor's visit. A list of possible student responses is provided below.

Some sample responses:

Things that make me feel not confident or unsatisfied about the doctor's visit:

- *I can't speak English well so I don't know if the doctor really understands me.*
- *The doctor didn't sit down. I didn't think he wanted to stay and talk to me.*
- *The doctor spoke too fast. She used a lot of words I did not understand.*
- *I didn't understand the doctor's instructions but I felt too embarrassed to ask him to repeat what he was saying.*
- *I felt terrible that I could not talk to the nurses and doctors. I just said "yes" and "thank you."*
- *I didn't know what to say about the pain in my hip. I didn't feel confident that the doctor really knew what I was feeling.*

2. **Importance of good doctor-patient communication: Discussion and analysis**

Invite the students to comment on the question, *Why is good doctor-patient communication important?* Depending on the size of your class, you may wish to ask students to discuss this question as a large class, in pairs, or perhaps spend some time individually writing a response in their journals. As the students share their ideas, be sure that the following ideas are highlighted in the group discussion:

- **Doctor visits are usually very short.** Your doctor *should* talk to you in a clear and understandable way. Some doctors do a good job of talking to patients and some doctors do a bad job. Your actions, as a patient, are important too. By talking to your doctor, you can help him or her figure out how to take care of your health.
- **Talking to doctors can be especially difficult for adults who are not fluent in English or who are not familiar with the U.S. health system.** Poor communication between doctors and their patients can be a serious barrier to good health.
- **Many people – even those who *do* speak English fluently – do not go to see the doctor because they are anxious about talking to a doctor.** This anxiety is normal and common. However, putting off seeing a doctor can cause more problems.

Note to teacher: These comments are used to set the stage for a subsequent discussion of strategies for improving communication with doctors in Step #3. Avoid “lecturing” to the students. Be patient even if the discussion is slow-moving as students may not have thought about doctor-patient communication before. If the ideas are not mentioned in the students’ discussion, you may wish to briefly summarize the ideas and then invite students to comment on the ideas.

3. **Overcoming barriers and identifying strategies for improved doctor-patient communication: Small group work**

Organize the students into groups of two or three and distribute the **Student Worksheet: Problem-Solving around Doctor-Patient Communication**. Ask students to problem-solve in reaction to the various things that made them feel not confident or unsatisfied with their doctor visits.

In Column 1 on the worksheet, ask students to list two or three problems people face when they talk to doctors.

In Column 2, ask the students to think of things they can do to help themselves with this problem. Ask the question, *what can I do to overcome this problem?*

In Column 3, ask the students to list one or two sentences or phrases they might use to overcome these problems.

A few examples are provided below for you.

Problems and barriers	What strategies can help me try and overcome these problems and barriers?	What can I say in English to help me overcome these problems and barriers?
Doctors' visits are too short. They sometimes last only about 10-15 minutes.	<p>I can write down my questions on a card <i>before</i> my appointment.</p> <p>I can bring this card to my appointment so I don't forget what I want to say.</p>	"Dr. Tam, I have three questions about my diabetes. Could you answer these questions?"
The doctor uses a lot of medical words that I don't understand.	<p>I can ask the doctor to write down any words that I don't understand.</p> <p>I can ask the doctor to explain these words in simpler language.</p> <p>I can bring a bilingual dictionary.</p> <p>I can ask for a trained interpreter.</p>	<p>"Dr. Tam, excuse me, I didn't understand what you said. Could you write it down?"</p> <p>"Could you say it in simpler language?"</p> <p>"Could I request an interpreter, please?"</p>
The doctor is talking too fast. I can't say what I want to say.	<p>I can ask the doctor to repeat what she or he said.</p> <p>I can ask the doctor to speak more slowly.</p>	<p>"Dr. Fernandez, excuse me, could you repeat what you said?"</p> <p>"Would you mind speaking more slowly?"</p>

Allow the students to work in groups for at least 30 minutes. After groups have filled in the chart on two or three problems or barriers, bring the class together as a whole and invite each group to share some of their ideas. You may wish to record the students' ideas on a blank handout that is transferred onto an overhead transparency or onto a large sheet of poster paper.

Note to teacher: Less proficient students will likely need help with vocabulary and the formation of questions. This lesson provides the instructor with an opportunity to reinforce the grammatical structure of questions (e.g., auxiliary verb + subject + main verb). In addition, the instructor can discuss the use of modal expressions to show respect and politeness (e.g., Will you..., Could you...?), and support the development of students' pragmatic competence (e.g., the use of formal versus informal requests).

Also, be sure to emphasize that the students' responses do not need to include all the possible problems and barriers that a patient might encounter. It is more important that students identify the problems that worry them **the most** and that they come up

with a strategy. This exercise provides strategies and language so they can feel more confident should they run into the same problem or barrier.

Follow-up Activities

A. Survey activity

Students interview five people outside of class. They ask the questions posed to the students in Step #1 about doctor visits. Students can share their information in the next class. The follow-up discussion can focus on what is similar about the people's experiences.

B. Skit activity

Ask students to read the following scenario and identify the barriers or problems. Students should think about what the patient in the scenario should do to try to overcome these problems. Working in pairs, students can write a short skit between the patient and the doctor.

Scenario:

You haven't felt like yourself lately and you've had a headache all day. You take Tylenol, but the headache doesn't go away. You are worried because you are not sure what is causing the headaches. You don't want to go the doctor because you're afraid he'll be mad at you for coming in for such a small problem.

You decide not to call, but the next day you still have a headache. Your husband or wife tells you, "If you don't go to the doctor, something bad might happen."

It's your first time meeting this doctor. *

ABE/GED Teaching Tips

Even those students who are native English speakers or who were born in English-speaking countries will likely find this lesson useful and relevant. Many people – whether they speak English fluently or not – feel intimidated or unsure about what to say when they visit a doctor.

* Adapted from material in *How to Talk to Your Doctor (and get your doctor to talk to you!)* published by Excellence Centers to Eliminate Ethnic/Racial Disparities (EXCEED) at the Baylor College of Medicine, Houston, Texas. Material has been adapted with permission from the authors.

At a conference (Health and Literacy Working Together) organized by the Iowa New Readers in 2005,* adult learners shared concerns about not being able to communicate well with their doctors. These students wanted to tell their doctors, “treat us with respect” and “we will treat you with respect.” These students also wished their doctors would spend more time with them. They want their doctors to give them clear instructions, for example, when getting a new prescription. The students shared concerns about doctors who assume their patients understand the doctor’s instructions and can read the documents they are given. The students were also concerned about the assumptions that doctors sometimes make about patients who cannot read well. The students asked that doctors not “feel sorry for us...we want (doctors) to try and understand us.”

You may wish to share some of these comments with your ABE/GED students as a way to jumpstart the discussion of doctor-patient communication issues.

Technology Tips

To view information about The *How to Talk to Your Doctor* community education forum, as well as the materials, produced by Excellence Center to Eliminate Ethnic/Racial Disparities (EXCEED) at the Baylor College of Medicine, Houston, Texas, visit their Web site: <http://www.bcm.edu/medicine/exceed/index.html>.

* These comments were taken from conference proceedings but are not available on the Web. For more information about the conference, visit <http://www.ihl.org/IHI/Topics/Improvement/ImprovementMethods/Literature/HealthandLiteracyWorkingTogether.htm>

Student Worksheet: Problem-Solving Around Doctor-Patient Communication

Problems and barriers	What strategies can help me try and overcome these problems and barriers?	What can I say in English to help me overcome these problems and barriers?
<p>Doctors' visits are too short. They sometimes last only about 10-15 minutes.</p>	<p>I can write down my questions <i>before</i> my appointment on a card.</p> <p>I can bring this card to my appointment so I don't forget what I want to say.</p>	<p>"Dr. Tam, I have three questions about my diabetes. Could you answer these questions?"</p>

Lesson 8: (ESOL) Questions to Ask Your Doctor *

Chronic Disease Management Tasks Addressed in this Lesson	Purpose												
<ul style="list-style-type: none"> • Work effectively with a doctor • Identify questions to ask the doctor before a visit • Develop strategies for improved doctor-patient communication <p>Skills Focus</p> <ul style="list-style-type: none"> • Students will discuss and share personal opinions about communication styles of doctors and patients. • Students will learn and practice language for communicating with a doctor, including expressions for asking questions, making requests, stating preferences, and getting clarification. <p>ABE/ESOL Level Intermediate to advanced ESOL</p> <p>Time 1 ½ hours</p> <p>Materials</p> <ul style="list-style-type: none"> • Student handouts (Conversation Between a Doctor and Patient, Questions You Can Ask Your Doctor) <p>Vocabulary</p> <table style="width: 100%; border: none;"> <tr> <td>dose</td> <td>procedures</td> </tr> <tr> <td>interact</td> <td>risks</td> </tr> <tr> <td>medical condition</td> <td>side effects</td> </tr> <tr> <td>medication</td> <td>test</td> </tr> <tr> <td>medicine</td> <td>treat</td> </tr> <tr> <td>prescription</td> <td>treatment</td> </tr> </table>	dose	procedures	interact	risks	medical condition	side effects	medication	test	medicine	treat	prescription	treatment	<p>This lesson is designed to provide ESOL students with an opportunity to learn and practice asking questions. Students will discuss why thinking about questions <i>before</i> a doctor visit is important. They will also discuss possible barriers to good communication between doctors and patients. Students learn to ask questions about medical conditions, treatments, tests and procedures, as well as medicines and prescriptions.</p> <p><i>Note to teacher:</i> Helping students feel prepared for a visit to the doctor is one of the best ways to improve doctor-patient communication. It is very important to bear in mind that there are no “quick-fix” solutions to problems in this regard. This lesson will likely raise issues of very sensitive topics to your students, such as stereotyping about linguistic and ethnic minorities, racial inequities, cultural differences, or poor access to quality health care. These are serious and legitimate concerns about the barriers to reform in doctor-patient communication. You do not need to comment or feel as if you need to be an expert on health topics.</p> <p>Be clear about your goals as an ESOL teacher. Point out that students will develop a plan to help them prepare for a doctor’s visit. Use your students as resources as much as possible. Their own experiences and knowledge are critical to the success of health literacy instruction.</p>
dose	procedures												
interact	risks												
medical condition	side effects												
medication	test												
medicine	treat												
prescription	treatment												

* The materials in this lesson are based on materials in *Communicating With Your Doctor: The PACE System* produced by Dr. Donald J. Cegala, Ohio State University.

Steps

1. A Conversation between a Doctor and Patient: Pair work (10 minutes)

Distribute the **Student Handout #1: A Conversation between a Doctor and Patient**. Organize the students into pairs and ask the students to read the conversation aloud with their partners. Students can take turns being the patient and doctor so they get more practice reading the script aloud. Encourage students to use their dictionaries or ask one another for help if there are words or phrases that they do not understand.

(TEACHER'S COPY) Conversation Between a Doctor and Patient

This conversation takes place during a patient's visit to her doctor. The doctor wants to prescribe a drug for the patient's high blood pressure.

Doctor: I would like you to take a medicine for your high blood pressure.

Patient: What is the name of the medicine?

Doctor: Acebutolol.

Patient: What does it do?

Doctor: This drug is used to treat high blood pressure. It helps to lower your blood pressure.

Patient: Could you tell me if there are any side effects?

Doctor: It might make you feel sleepy or dizzy. It might also make you feel weak and tired.

Patient: How should I take it?

Doctor: Please take it once a day. You can take the drug with food so it doesn't upset your stomach.

Patient: Thanks for your help.

Doctor: You're welcome. See you at your next visit.

2. Analysis of the conversation between a doctor and patient

Discuss the conversation as a whole class. Pose the following questions: *

- *Did any part of this conversation surprise you? Explain.*
- *Is this conversation similar to conversations that you have had with your own doctor? (Or, how is this conversation different from conversations that you have had with your doctor?)*
- *What makes talking to doctors difficult? List some problems.*
- *Can you imagine this conversation taking place in your home country? How might the conversation be the same or different?*

* Questions adapted from lesson plans featured on Western Pacific LINCS, Literacyworks, available at <http://www.literacynet.org/vtd/>

Invite students to share their thoughts and comments. Depending on the size of your class, you may wish to ask the students to keep working in pairs, or join another pair to form a group of four, so that all students have an opportunity to share their ideas. This discussion will likely raise the problems students have asking doctors questions. If the topic does not come up, be sure to raise it as a possible area of difficulty. Make a list of students' responses on the board. Some possible responses are provided below.

What is difficult about asking doctors questions?

- *I can't speak English well so I don't know how to ask my questions.*
- *I forget my questions when I get to the doctor's office.*
- *I can ask the questions, but then I can't understand the doctor's answer.*
- *I feel too embarrassed to use my English.*
- *The doctor seems to get mad if I ask a lot of questions.*

Optional. If time allows, ask the students to generate a list of ways in which health professionals in the U.S. act differently than do health professionals in their home countries. You can title this list **Cultural Differences in Patient-Doctor Communication**. Some possible student responses are provided below.

Cultural Differences in Patient-Doctor Communication

- *In the U.S., doctors will tell you good and bad news. But in my country, doctors do not tell bad news to the patient.*
- *In my country, it is not respectful to ask the doctor too many questions. In the U.S., a patient is supposed to ask questions.*
- *In my country, you shouldn't look right at the doctor. It's rude. If I don't look at the doctor in the U.S., the doctor might think something is wrong with me.*

Note to teacher: In discussing the challenges of asking doctors questions and cultural differences, avoid lecturing to the students. As much as possible, use the students' own experiences to drive the class discussion. After students have had a chance to share their ideas, tell them that the next part of the lesson will help them practice asking questions in English so they can be better prepared for visits to the doctor.

3. **Questions I Can Ask My Doctor: Small group work**

Organize the students into groups of two to three. Distribute the **Student Handout #2: Questions You Can Ask Your Doctor** to each student. The handout presents sample questions that patients can ask their doctor. The questions are organized into three categories:

- Questions for your doctor
- Questions about tests and procedures
- Questions about medicines

Assign one set of questions to each group. Ask the students to read the questions and underline any unfamiliar vocabulary. Students can use their dictionaries or ask their peers or the teacher for help. (Note: Depending on the level of your class, you may wish to read the questions aloud to the whole class to model correct pronunciation and intonation before organizing the students into small groups.)

Ask each group to complete the following three tasks:

1. Read the questions and make sure they understand what the questions mean. Encourage them to ask their peers or you for help. Students will discuss three questions:
 - Which questions do you already know how to use?
 - Are there questions that you would be nervous asking? (If so, why?)
 - Are there other questions you can add to the list?
2. Pick two to three new vocabulary words. One member of the group will teach these new words to the rest of the class.
3. Write a short skit (8-10 lines) between a doctor and a patient using some of the questions in the category. Two members of the group will do the skit for the whole class.

Variation. If time permits, you can provide the students with only one or two sample questions from the complete handout for each category and ask them to generate more questions on their own. Say to the students, “*Think about the kind of questions you might ask about the medicines your doctor asks you to take. What kind of questions might you have?*” After each group has had time to think of as many questions as possible for their category, you can distribute the complete list of questions so students can add to their lists. Give the groups about 15 minutes to think of some possible questions.

Note to teacher: Be sure to emphasize that the skits need not be completely accurate or too technical in terms of medical information. Rather, it is **more** important that students understand the meaning and the purpose for asking the questions. The skits are meant to be exercises that give students practice in asking questions. Hopefully, these exercises will boost the students’ confidence in asking these questions of a real doctor.

If students are eager to include accurate medical information in their skits, encourage them to search the Internet for medical information. For a list of useful Web sites, check the **List of Additional Resources**, a handout that was sent out before Session One of this study circle.

Follow-up Activities

Interview activity. Students interview someone with a chronic disease (or someone who takes care of someone with a chronic disease). Ask the person about their experiences talking to doctors. Some sample interview questions include:

- *What is difficult (easy) about talking to doctors and asking them questions?*
- *How confident do you feel asking your doctor questions?*
- *What advice would you give someone with a chronic disease who is visiting a doctor for the first time?*
- *In your opinion, what should doctors do to communicate well with their patients?*
- *In your opinion, what should patients do to communicate well with their doctors?*

Students can summarize their interview material in an oral presentation or in writing. Students can share their information with each other in class. As a class, discuss similarities across people's experiences talking to doctors.

ABE/GED Teaching Tips

Even those students who are native English speakers or who were born in English-speaking countries will likely find this lesson useful and relevant. Many people – whether they speak English fluently or not – feel intimidated or unsure about what to say when they visit a doctor.

At a recent conference (Health and Literacy Working Together) organized by the Iowa New Readers,* adult learners shared concerns about not being able to communicate well with their doctors. These students wanted to tell their doctors, “treat us with respect” and “we will treat you with respect.” These students also wished their doctors would spend more time with them. They want their doctors to give them clear instructions, for example, when getting a new prescription. The students shared concerns about doctors who assume their patients understand their instructions and can read the documents they are given. The students were also concerned about the assumptions that doctors sometimes make about patients who cannot read well. The students asked that doctors not “feel sorry for us...we want (doctors) to try and understand us.”

You may wish to share some of these comments with your ABE/GED students as a way to jumpstart the discussion of doctor-patient communication issues.

* These comments were taken from conference proceedings but are not available on the Web. For more information about the conference, visit <http://www.ihl.org/IHI/Topics/Improvement/ImprovementMethods/Literature/HealthandLiteracyWorkingTogether.htm>

Technology Tips

To view information about *Communicating with Your Doctor: The PACE system* produced by Dr. Donald J. Cegala, Ohio State University, please visit their Web site: <http://patcom.jcomm.ohio-state.edu>.

Student Handout #1: Conversation Between a Doctor and Patient

This conversation takes place during a patient's visit to her doctor. The doctor wants to prescribe a drug for the patient's high blood pressure.

Doctor: I would like you to take a medicine for your high blood pressure.

Patient: What is the name of the medicine?

Doctor: Acebutolol.

Patient: What does it do?

Doctor: This drug is used to treat high blood pressure. It helps to lower your blood pressure.

Patient: Could you tell me if there are any side effects?

Doctor: It might make you feel sleepy or dizzy. It might also make you feel weak and tired.

Patient: How should I take it?

Doctor: Please take it once a day. You can take the drug with food so it doesn't upset your stomach.

Patient: Thanks for your help.

Doctor: You're welcome. See you at your next visit.

Discuss with your classmates

1. Did any part of this conversation surprise you? Explain.
2. How is this conversation different from conversations that you have had with your doctor?)
3. What makes talking to doctors difficult? List some problems.
4. Can you imagine this conversation taking place in your home country? How might the conversation be the same or different?

Student Handout #2: Questions You Can Ask Your Doctor

On this handout, you will find three sets of sample questions that you can ask your doctor. The questions are organized into three categories:

- Questions for your doctor
- Questions about tests and procedures
- Questions about medicines

Your group will be assigned one set of questions. Please complete the following tasks:

1. Read the questions and make sure you understand what they mean. If you are unsure, ask your classmates or your teacher for help.
 - Discuss these questions in your group:
 - Which questions do you already know how to use?
 - Are there questions that you would be afraid to ask? (If so, why?)
 - Are there other questions you can think of?
2. Pick two or three new vocabulary words. One member of your group will teach these new words to the rest of the class.
3. Write a short skit (8-10 lines) between a doctor and a patient using some of the questions in the category. Two members of your group will do the skit for the whole class.

Questions for Your Doctor

1. What do I have?
2. Why do I have this problem?
3. How will this affect my normal activities?
4. How long will I have to take medicine?
5. How long do I need to follow the treatment plan?

For example:

- Take the medicine
 - Do the exercises
 - Stay in the hospital
 - Stay off my feet
 - Avoid certain foods or activities
6. How will I know if things are getting better or getting worse?
 7. Where can I find more information about what I have?
 8. Do you have information that I can read (in my language)?
 9. Are there support groups for people who have this? If so, where may I contact them?

Questions about Tests and Procedures

Some examples of tests and procedures: *an x-ray, a magnetic resonance imaging (MRI) scan, blood tests, ultrasound*

1. Why do I need this test or procedure? What will it tell us?
2. Are there any risks in doing the test or procedure?
3. What does the test or procedure involve?

For example:

- Will it be painful?
- How long does it take?
- Will I be awake or asleep?
- Do I need to bring someone with me?
- Does it matter what I eat or drink?
- Do I need to stop taking other medicine?
- Who does the test or procedure?
- How is it done, what steps are involved?
- Where is it done?

Questions About Medicines

1. What is the name of the medicine (or drug)?
2. Why am I taking it? What does it do?
3. Does it have any side effects?
4. Will it be a problem with other medicines, vitamins, or herbs I am taking?
5. What should I do if I have a bad reaction?
6. Are there ways to treat my problem without medicine?
7. What will happen if I don't take the medicine?
8. How much better will I feel after taking the medicine?
9. How long until I feel better taking this medicine?
10. How should I take it? How often should I take it?
11. How long will I need to take it?
12. What should I do if I miss a dose?

Lesson 9: (ESOL) Talking About Symptoms to Your Doctor *

Chronic Disease Management

Task Addressed in this Lesson

- Students will develop their skills for describing symptoms with greater clarity and accuracy.

Skills Focus

- Students will learn language expressions and adjectives for talking about symptoms.
- Students will develop communication strategies that can help them be as specific as possible about the nature of symptoms and the conditions under which symptoms appear.

ABE/ESOL Level

Intermediate to advanced ESOL

Time

1 ½ hours

Materials

- Student Handouts

Purpose

This lesson is designed to help students learn how to describe their symptoms clearly and effectively. This lesson begins by inviting the students to discuss how talking to a doctor about a health concern is a lot like talking to a car mechanic about a problem with their car. This analogy provides a framework for helping students understand the value of being clear and specific.

Students practice using details about symptoms, including their character, duration, onset, and conditions. A chart of vocabulary words used to describe symptoms is provided.

Steps

1. **Whole class discussion. (15 minutes)**
Distribute the handouts. Ask students to look at the page titled **Talking about Symptoms to Your Doctor**. Discuss the question, *How is talking to a car mechanic when you have a problem with your car a lot like talking to a doctor when you have a health problem?*

Brainstorm with the whole class.

* Material in this lesson is adapted from lessons in *English Vocabulary in Use* (Michael McCarthy and Felicity O'Dell, 1994, Cambridge University Press) and information published by the American Automobile Association (AAA) Web site, *Communicating with Service Professionals* at <http://www.csaa.com/home>

Some possible responses:

- *It's hard to know what's wrong with a car and what's wrong with our bodies sometimes. We have to explain a lot of things to a car mechanic and a doctor to figure out what is wrong.*
- *Sometimes the car mechanic doesn't understand what the problem is with the car. Sometimes the doctor also doesn't understand what the problem is with our body.*
- *Car mechanics and doctors both ask lots of questions.*
- *It can be hard to find words to describe noises and feelings or sensations.*

After students have had an opportunity share some of their ideas, explain that the topic of the day's lesson is on how to talk to your doctor about your symptoms. Write the word **SYMPTOM** on the board and ask students to help you define the word. Encourage them to use their dictionaries and to translate the word into their first language.

Here is a suggested definition:

It's useful to think of symptoms as what the patient feels and signs as what the doctor observes. Symptoms, like tiredness (fatigue) and pain, are subjective experiences. The doctor cannot easily measure or observe symptoms. Only the patient knows exactly what his or her symptoms feel like. Doctors try to understand the nature and pattern of a patient's symptoms in order to make a diagnosis.

2. Small group work: Reading and discussion (1 hour)

Organize the class into small groups of three to four people. Ask the groups to read the handout titled **Signs from Your Car, Signs from Your Body**. Explain that the reading talks more about the similarity between talking to your car mechanic and talking to your doctor. After the group reads the paragraph, they should answer the discussion questions for the handout.

Encourage the students to use their dictionaries or ask for help with unfamiliar vocabulary. Record any new words and their meanings on the board for all to see.

Check in with each group to make sure they do not have trouble understanding the ideas in the handout.

3. Large group discussion: What does it mean to be CLEAR and SPECIFIC? (15 minutes)

Invite the groups to share their responses to the discussion questions. Be sure to check the students' understanding of what it means to be CLEAR and SPECIFIC when describing your symptoms to a doctor. The more information you give to a doctor, the more likely the doctor will be able to identify the problem.

Be sure to recognize the students' worries and concerns about talking to a doctor about their symptoms. It is easy to be scared and nervous when talking to a doctor about your health, especially when you don't feel very well. At the same time, if you are too scared or nervous, you may not be able to think clearly, describe your symptoms effectively, or ask good questions.

Not all doctors are good listeners. Students will need help as they think about what to say to a doctor. They need practice asking questions and planning skills to decide what to focus on. Many people are assertive in this way when they talk to a car mechanic because they want their car fixed quickly and in the right way. This is a useful way of thinking about talking to doctors to avoid delays in getting health care.

4. **Small group work: Practice describing symptoms (30 minutes.).**

Ask students to turn to the handout titled **Practice: How to Describe Your Symptoms** which features several questions that can help the students know what to say to the doctor about symptoms. Ask the students to work in their small groups to read the questions and the examples of things to say to a doctor. Ask the students to practice what they might say to a doctor.

Also, refer students to the handout titled **Vocabulary for Describing Symptoms**, which give examples of words used to describe pain, tiredness, and rashes. Encourage the students to use the words from this handout in their descriptions. Encourage students to add other symptoms (e.g., fever, stress) and add other related nouns, verbs, and adjectives to the list. The follow-up activities in this lesson describe ways to use this handout for vocabulary development.

Follow-up Activities

1. **Vocabulary for Describing Symptoms**

Ask students to review the vocabulary in the handout, **Vocabulary for Describing Symptoms**, and to use a dictionary to learn the meanings of any new words. Students can work in pairs to explore the differences in meaning for a group of words related to a particular symptom. Students can discuss, for example, how a **dull pain** feels different from a **sharp pain**, or how a **twinge** is different from a **throbbing pain**. Encourage students to come up with strategies for remembering these differences, such as ordering these words on a continuum to indicate severity of pain. For example, students might generate mnemonics such as this:

0		5		10
no pain	mild dull	moderate	throbbing	severe

Students can also work in pairs to generate descriptive words for other symptoms, such as shortness of breath, fever, stress, or anxiety. Be sure to have a dictionary and thesaurus on hand for each group.

2. Interview someone about their experiences with being sick and managing symptoms

Students identify someone who has experience with being sick or managing a chronic disease. The students will interview the person about the range of symptoms the person had. This activity will help students understand the kinds of symptoms associated with particular illnesses or disease. Here is a suggested interview protocol:

- Please tell me about the last time you were sick. (Please tell me about your chronic disease.)
- What were your symptoms?
- When did you notice the symptoms? (When did the symptoms start?)
- What were you doing when the symptoms started?
- Did the symptoms happen all the time (constant) or only sometimes? When did you have the symptoms? (e.g., only at night?) How long did the symptom last (a few seconds, an hour, a week)? What seemed to make the symptoms worse?
- Did the symptoms make it hard for you to do everyday activities (e.g., eat, sleep, and work)? How?
- Did you do anything to feel better? (Did you take any medicine? Did you rest?)
- If you went to a doctor, were you able to explain your symptoms to the doctor? How? Was the doctor able to help you feel better? How?

The students can summarize the person's responses into an oral presentation or a short descriptive essay. In a large group discussion, talk about common difficulties you have in understanding symptoms and talking to doctors about symptoms.

ABE/GED Teaching Tips

Even those students who are native English speakers or who were born in English-speaking countries will likely find this lesson useful and relevant. Many people – whether they speak English fluently or not – feel intimidated or unsure about what to say when they visit a doctor.

At a conference (Health and Literacy Working Together) organized by the Iowa New Readers,* adult learners shared concerns about not being able to communicate well with their doctors. These students wanted to tell their doctors, “treat us with respect” and “we will treat you with respect.” These students also wished their doctors would spend more time with them. They want their doctors to give them clear instructions, for example, when getting a new prescription. The students shared concerns about doctors who assume

* These comments were taken from conference proceedings but are not available on the Web. For more information about the conference, visit <http://www.ihl.org/IHI/Topics/Improvement/ImprovementMethods/Literature/HealthandLiteracyWorkingTogether.htm>

their patients understand their instructions and can read the documents they are given. The students were also concerned about the assumptions that doctors sometimes make about patients who cannot read well. The students asked that doctors not "feel sorry for us...we want (doctors) to try and understand us."

You may wish to share some of these comments with your ABE/GED students as a way to jumpstart the discussion of doctor-patient communication issues.

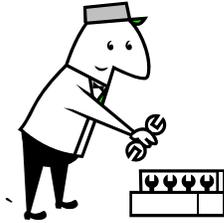
Technology Tips

Here are some suggested Web sites for learning more about patient-doctor communication and symptoms.

- **Talking With Your Doctor: A Guide for Older People, National Institute on Aging (NIA), part of the National Institutes of Health.**
Features a section entitled *What Can I Do? Tips for Good Communication*.
<http://mdchoice.com/Pt/consumer/talk.asp>
- **Improve communication with your doctor, Women's Heart Foundation.**
http://www.womensheartfoundation.org/content/HeartWellness/improve_doctor_patient_communication.asp

Talking About Symptoms to Your Doctor

1. **Warm-up.** Brainstorm with your classmates.



How is talking to a car mechanic when you have a problem with your car a lot like talking to a doctor when you have a health problem?



Write down your ideas. Share your ideas with your classmates.

2. **Short reading and discussion**

Read the handout titled **Signs from Your Car, Signs from Your Body** and answer the discussion questions. Talk about your answers with your classmates.

Signs from Your Car, Signs from Your Body

You know your car better than anyone else does because you drive it every day. You know how it acts when it's running right. You also know when something is not quite right. When something is not right with your car, it sends you a signal. In the same way, you know what feels right with your body.



When something is not right with your body, it sends you a signal, just like a car does. The medical word for these signals is **symptoms**. A symptom is the way your body lets you know that something is not normal. A symptom may be a sharp pain or a shortness of breath or a lack of energy.



Talking to a mechanic about problems with your car is a lot like talking to your doctor about problems with your health. A mechanic will ask you many questions to find out what is wrong with the car. If you say, “My car doesn’t work,” the mechanic will have to ask you many questions to figure out the problem. But, if you say, “My car makes a loud noise when I drive fast on the highway,” this helps the mechanic find the problem faster. In the same way, your doctor can more easily figure out a health problem if you are **CLEAR** and **SPECIFIC**. If you say, “I feel sick,” the doctor will have to ask you many questions to find out what is wrong. But, if you say, “I have a sharp pain in my arm when I try to write,” you can help the doctor figure out the problem faster.

Practice: How to Describe Your Symptoms

It is useful to think about what to say to the doctor *before* you go to the doctor's office. Here are some questions that you can ask yourself. Your answers may help you be CLEAR and SPECIFIC when talking to your doctor about your symptoms.

- What is the symptom? (Is it a pain? Is it a rash? Is it a feeling of tiredness?)
- When did you notice the symptom? (When did the symptoms start?)
- What were you doing when the symptoms started?
- Do the symptoms happen all the time (constant) or only sometimes? When do you have the symptoms (e.g., only at night, when I'm moving)? What seemed to make the symptoms worse?
- How long does the symptom last (e.g., a few seconds, an hour)?
How long have you had them (e.g., a week, a month)?
- Do the symptoms make it hard for you to do everyday activities (e.g., eat, sleep, and work)? How?
- Are you doing anything to try to feel better? (Do you take any medicine? Do you rest?)

Here are some examples of how to describe symptoms:

“Doctor, I have a red rash on my stomach. I saw the rash after dinner two nights ago. It hasn't gone away.”

“Doctor, I have a sharp pain in my lower back. I was lifting a heavy box at work a couple of weeks ago when I first felt the pain. I took some aspirin and the pain went away for a little while. The pain is getting worse.”

“Doctor, I have a mole on my left arm. The mole used to be small, but I think it looks bigger and darker. I work outside and I sometimes use sunscreen, but I often forget.”

“Doctor, I have chills and feel very weak, especially in the late afternoon, before dinner.”

Don't say, *“Doctor, I don't feel well. What's wrong with me?”*

Practice: Think of a time when you (or someone you know) didn't feel well or had a health problem. What were the symptoms? Imagine that you were going to talk to a doctor about the problem. Answer as many of the questions as you can that are listed in the handout titled **Practice: How to Describe Your Symptoms.**

What do you want to tell the doctor? You can use the handout titled **Vocabulary for Describing Symptoms** to find words for describing symptoms, such as pain, fatigue, or a rash. Use a dictionary or ask your classmates or your teacher for help with any new words.

If you want to talk about a symptom that is not on the list, fill in a blank row with the symptom and the other nouns, verbs, and adjectives you would use to describe it.

Vocabulary for Describing Symptoms

Symptom	Adjectives I can use to describe the NATURE of the symptom	Adjectives I can use to describe the DURATION of the symptom	Nouns with similar meaning	Expressions I can use to describe the symptom
pain	dull mild moderate severe throbbing sharp	constant occasional frequent	soreness ache twinge throbbing	I feel sore. It aches. It twinges. It throbs.
fatigue	severe mild moderate	occasional constant frequent	tiredness exhaustion low energy	I tire out. I am exhausted. I have low energy.
rash	spotty red itchy oozing crusty mild severe benign	frequent occasional	reaction inflammation itchiness irritation	I have a skin reaction. My skin is irritated. My skin is itchy. It flares up.

