

Medicine From Around the World

Teacher Background Information:

Students should know the difference between prescription and over-the-counter medicine. Students should understand that medicines manufactured in the U.S. must be approved by the Food and Drug Administration.

Objectives:

Students will:

1. Define the word "import".
2. Identify products that are imported into the United States.
3. Describe the regulations governing imported medicines.
4. Explain why people would take medicines from other countries.
5. Explain the danger in taking medicines from other countries.
6. Define "alternative medicine".
7. Research and synthesize information about a specific type of alternative medicine.

Language Development:

- import: to bring a product into a country to sell.
- manufacture: to make.
- traditional: based on the customs of a group of people and handed down from generation to generation.
- ethnic: having to do with a group of people that are alike in background and custom.
- contaminated: unfit for use because of the presence of something that should not be there.
- counterfeit: deliberately fake or false.
- remedy: a treatment to cure an illness.
- alternative: serving as something else that can be chosen.
- complementary: serving as something that completes or makes something else perfect.

Assessment:

Teacher will assess:

1. Students' ability to define the words "import" and "alternative medicine" and give examples of each.
2. Students' ability to describe how imported medicines are regulated in the United States.
3. Students' ability to explain why people may take medicine from another country and why it can be dangerous.
4. Students' ability to research and synthesize information about an alternative medicine therapy.
5. Students' ability to work cooperatively with other students.

Activity:

Full Group

1. Ask students, "What does it mean if something is described as imported?" (An imported item is something that is brought into this country after being manufactured in a different country.)
2. Ask students to identify some items that may be imported (cars, electronic equipment, jewelry, furniture, food, etc.)

3. Tell students that sometimes medicines are imported into the United States from other countries.
 - a. If a company wants to sell its medicine in the United States it must meet Food and Drug Administration (FDA) guidelines.
 - b. In most cases, the medicine must be one that is already approved in the United States.
 - c. The manufacturer must be able to show that it meets the requirements for safety and effectiveness. It must also demonstrate that it was manufactured in a safe way.
 - d. New medicines that have not been approved by the FDA, even if they are foreign versions of U.S. approved medicines, are not allowed to be imported into the United States.

4. Explain to students that sometimes people bring medicine into the United States for their own use. They may carry it with them from a foreign country or order it over the internet.
 - a. There are regulations governing what can be brought into the country for personal use also.
 - b. The regulations are the same as for companies importing medicines. The medicine has to be approved for use in the U.S.
 - c. There are certain situations when the government may allow unapproved medicine to be brought into the country for personal use:
 - The medicine is for a serious condition for which there is no effective treatment available in the U.S.
 - There has been no advertisement for the medicine in the U.S.
 - The medicine does not pose an unreasonable risk.
 - The person bringing the medicine into the United States affirms in writing that the medicine is for personal use only and provides the name and contact information of a doctor licensed in the U.S. who will be responsible for the person's care while taking the medicine.

5. Ask students, "Why do you think people take medicines from other countries?"
 - a. Sometimes people are interested in taking a medicine that has not been approved in the United States.
 - b. Some medicines that are approved in the U.S. are cheaper in other countries. This has led many Americans, especially senior citizens, to drive to Mexico and Canada to buy medicines.
 - c. Sometimes people take medicines that are part of ethnic or traditional practices.

6. Tell students that overall, it is not considered a good idea to take medicines from foreign countries. Ask students why they think this is the case.

7. Explain that there are many reasons why taking medicine from other countries is not advised.
 - a. Little or no regulation in other countries
 - In the United States, medicines must be approved for use by the Food and Drug Administration.
 - Manufacturers must prove that the medicine is safe and effective and that it is produced in a way that is safe and ensures the quality of the medicine. There are also regulations concerning the information that must appear on the medicine's label.
 - Other countries may not have the strict regulations for medicine that the United States has. Some countries do not require medicines to be tested for safety or to be labeled like in the United States.

- Medicines from these places may not be safe or of high quality. Without proper labeling it can be dangerous to use a medicine.
- b. Some medicines require a prescription in the U.S. because they are dangerous to use without medical supervision.
 - In the United States, some medicines require a doctor's order, or prescription, before they can be used. This is because the medicine can be dangerous if it is not used under a doctor's supervision.
 - Sometimes in other countries, medicines that require a prescription in the United States are available without one. It can be dangerous to take these medicines.
 - c. Complications may arise and treatment could be delayed or more difficult.
 - If a person becomes ill, doctors and nurses can ask the person if they have taken a medicine, its name, and the dosage. They also have information about known adverse reactions, or side effects, from different medicines.
 - If the medicine is from another country, the patient may not know its name or what the dosage was, especially if the medicine does not have a label. In addition, medicines manufactured in other countries may have been contaminated.
 - Treatment may be delayed or more difficult in this situation and could lead to further complications.
 - d. Counterfeit medicines
 - Ask students what it means if something is "counterfeit." (A counterfeit item is something that is deliberately fake.)
 - Ask students if they have heard of anything that can be counterfeit. (money, jewelry)
 - Ask students, "Why do criminals make counterfeit products?" (Criminals make a lot of money selling the counterfeit products to unsuspecting people.)
 - Some countries have problems with counterfeit medicines. These medicines may look like the real thing but they are fake. Countries with this problem are those where the manufacture and sale of medicine is less regulated.
 - Counterfeit medicines may not contain any active ingredient (the part of the medicine that makes it work to treat, prevent, or cure illness), it may contain an incorrect amount of active ingredient, or it could contain different active ingredients. Counterfeit medicines sometimes contain chemicals that are poisons.
 - Ask students why counterfeit medicines are dangerous (People are not taking the medicine they think they are.)
 - e. Dangerous Ethnic or traditional remedies.
 - Not all people around the world go to doctors when they feel sick. Some people treat illness with traditional or ethnic remedies.
 - They may bring these remedies with them when they come to live in the United States.
 - In some cases, these remedies can be dangerous because these "medicines" may contain dangerous substances.
 - For example, in Mexico people use traditional remedies called greta and azarcon to treat stomachaches. However, it has been found that these "medicines" contain high levels of a metal called lead. When people ingest large amounts of lead they can become lead poisoned. Lead poisoning can cause kidney disease and brain damage, especially in children.
8. Tell students that around the world, including in the United States, groups of people may have different ideas about how to prevent, treat, and cure illness. Some people prevent and treat illnesses without going to a doctor or taking medicine like we are familiar with.

- a. In some cases, there are people who help patients to treat their illnesses but they are not doctors like those licensed in the United States.
 - b. Treatments can include taking herbal supplements or performing certain exercises.
9. Tell students that the type of health care we are familiar with in the United States is often referred to as Western medicine because we live in the Western Hemisphere. (Inform students that medicine can refer to health care as well)
- a. When people in the United States choose to use a different type of health care they are said to use alternative medicine. If they use it in addition to Western medicine it is referred to as complementary medicine.
 - b. Scientists have been studying these alternative treatments to determine whether or not they are effective.
 - c. In many parts of the world, what is considered alternative in the United States is considered the accepted form of treatment and in some cases has been used for thousands of years.

Small Groups

10. Divide students into groups. Tell students that they will investigate forms of alternative medicine from around the world including the United States.
- a. Assign or have students choose their topic. Some examples are listed below:
 - Acupuncture: a therapy practiced in China for the last 2500 years involving the insertion of thin needles into specific places on the body. It is believed that the needles can treat and cure illness by encouraging the flow of energy or qi (pronounced chee) in the body.
 - Acupressure: a therapy that originated in China 5000 years ago. Specific points on the body are pressed or rubbed with the fingers or hands to treat ailments such as headaches and stress, and to treat pain.
 - Homeopathy: a system of treatment based on the work of German Chemist Samuel Hahnemann (1753-1843). It uses minute amounts of whatever is causing an illness to treat the illness. It is based on the idea that "like cures like".
 - Traditional Chinese medicine: a system of health care that originated over 2500 years ago. It is based on the belief that illness is caused by an imbalance of qi (pronounced chee) or energy flow in the body. The imbalance is remedied through the use of herbal medicine, changes in diet, acupuncture, acupressure, movement (Tai Chi exercises)
 - Ayurveda: the traditional Indian system of medicine practiced for more than 5000 years that includes yoga, massage, meditation, and changes in diet. Practitioners of ayurveda receive state-recognized training not unlike Western doctors.
 - Reiki: (pronounced ray kee) the practice of transferring healing energy from the hands of a practitioner into the person being treated. Although associated with Japan, reiki may have origins in Tibet.
 - Yoga: developed in India over 5000 years ago, yoga is a system of exercises that encourages the balance between the body and mind through breathing and meditation.
 - Reflexology: the practice of putting pressure on specific areas of the feet and hands for overall health. Reflexology holds that each area of the feet and hands correspond to another area of the body. Therefore, the rest of the body can be treated by applying pressure to these areas. The origins of reflexology may date back to ancient China, India, and Egypt.

- b. Tell students they should research their topics and be able to present their group's topic to the rest of the class. They can create posters, brochures, or perform a newscast where they report on their topic. They should be as creative as possible.

Optional: Have students choose a country or region and research the area's major imports and exports. Have students report on their findings.

Additional Classroom Props:

- Related web sites:

National Center for Complementary and Alternative Medicine
www.nccam.nih.gov

National Library of Medicine—Medline Plus
www.nlm.nih.gov/medlineplus/alternativemedicine.html

Alternative Health News Online
www.altmedicine.com

Alternative Medicine Foundation
www.amfoundation.org

WholeHealth.com
www.wholehealth.com

The Alternative Medicine Home Page
www.pitt.edu/~cbw/altm.html

KidsHealth.org
www.kidshealth.org

Dear Family:

We have been discussing medicine from around the world. The students learned that all medicine that is brought into the United States must be approved by the Food and Drug Administration (FDA). Some people buy medicines from other countries because they may be cheaper, they may not be available in the U.S., or because they are a traditional or ethnic remedy. However, the students learned that it is not advised to take medicine from other countries. In many cases there is little regulation. This can lead to the manufacture of unsafe medicine. In addition, counterfeit or fake medicines are a problem in some countries. These medicines sometimes do not contain the active ingredient of the medicine, they contain the wrong amount, or they contain other ingredients that can be dangerous. Medicines from other countries should also be avoided when their use in the United States requires a prescription. Such medicines require the supervision of a doctor. Finally, certain traditional or ethnic remedies can be dangerous because they may contain poisonous chemicals such as lead. If complications arise while a person is taking a medicine from another country treatment may be delayed.

The students learned that around the world, people treat illness with other types of remedies. These remedies are referred to as alternative medicine in the United States. In some cases, people have been using these remedies, such as acupuncture and Chinese herbal medicine, for thousands of years. Alternative medicine treatments are being studied in the United States to determine whether or not they are effective.

Talk to your child about the proper use of medicines. If your family takes medicine from other countries, check with a local pharmacist to ensure that it is safe. Allow your child to describe to you what he or she has learned about medicine from other countries and alternative medicine. For more information about alternative medicine please visit www.kidshealth.org/parent/general/sick/alternative_medicine.html.

Sincerely,

Your Child's Teacher