



WATER CONSERVATION AND QUALITY

An English translation of a Spanish publication of the Texas Agricultural Extension Service, Texas A&M University, entitled "WATER CONSERVATION AND QUALITY."
Translated by permission.

Objective: When finished with this lesson, the participants will be able to understand:

- The necessity of water for good health
- The dangers that exist when you lose too much water from the body
- How water quality rules are established
- The dangers represented by possible contaminants
- How to practice methods that will help you conserve water in your daily use

- Materials:**
- Pamphlets about cholera from the Health Department
 - Handouts or transparencies that enumerate the key points
 - A glass, water and the equivalent of six to eight (8 oz) cups of water

Introduction

TO DO

- Pour water into a clear glass

- Show eight 8 ounce cups of water

TO SAY

- Water is an essential nutrient. People can survive for weeks without food, but only for 4 days without water. Water regulates body temperature and is necessary for life functions. Water carries nutrients and oxygen to all parts of the body through the blood.

- An adult consumes and excretes from two to three quarts of water per day. Adults need from 6 to 8 cups of liquid every day in order to maintain the amount of water needed by their bodies. This necessity can be fulfilled by having access to clean and fresh water.

- Losing more than 10 percent of your body weight in liquids can be fatal for a small child. Some causes for such water loss can be: severe vomiting, diarrhea, high fever, burns to the body, or even extreme thirst without replacing the liquids. The elderly, more than anyone, needs to drink from 6 to 8 cups of water to supply the body.

- It is important to remember that some drinks, such as coffee, tea, and alcohol increase the excretion of urine.

- Now that we know why we need water, let's talk about the quality of our water.

- When we turn on the faucet, the water leaves the pipe with dissolved solids, generally minerals. City water supplies may also contain chlorine for purification and fluoride for dental benefits.

- Government agencies measure the concentrations of gases and solids in water in order to keep them at low and harmless levels. However, if you get your water from a private well or an open canal or lagoon it is your responsibility to analyze the water and treat it if necessary in order to make it safe to drink.

Bacteria in the Water

- Although the majority of microorganisms in water are harmless, some can cause problems. Bacteria, viruses and parasites in drinking water pose a grave risk to health. Bacteria from human or animal waste can cause grave health problems such as dysentery, hepatitis, typhoid fever and cholera.

- It is not always possible to detect water that is not safe to drink. Some bacterial contaminations can cause a change in the color, taste or odor of the water.

Water contamination can occur from:

1. Nitrate - dangerous for animals
2. Sulfate - water that smells like rotten eggs
3. Lead - dangerous for children
4. Organic contaminants - pesticides and toxic waste

- If you get your water from a municipal source, you don't have to worry. However, water from other sources could be dangerous.

- List displayed

- Due to the possible cholera epidemic, you must follow the previous recommendations. The storage of water is also important. You should also try to conserve water whenever possible.

- By becoming aware of your water use habits, both old and new, you can reduce your water consumption, eliminate waste, and save energy and money.

- How much water do you use in one day? A gallon? Few people know how much they use. Water is a limited resource. The following points will help you to learn new ways to use water prudently.

Plumbing Systems

- List displayed

- Check all your faucets, inside and outside, to make sure that there are no drips. Make repairs immediately.

- Teach your children to turn off faucets and twist tightly after each use.

- A leak in the toilet can waste a large quantity of water. Put a small amount of dye in the tank. If the color drips into the bowl, there is a leak and repairs are needed.

- Never use the toilet as a trash can for facial tissues or other paper articles. Each time you flush the toilet, you use 5 to 7 gallons of water. A carelessly thrown paper product can clog the system.

- In emergencies, when the toilet needs to be flushed, use dirty water -- water that is left over from cleaning, bathing, etc. Pour the water in the bowl of the toilet, not the tank.

Washing Clothes

- Wait until you can fill the washer before washing clothes or use a lower water setting.
- In emergencies, siphon out the water from your washing machine into a tub so that you can use it for cleaning, flushing the toilet or watering plants. Use the "gray water" as soon as possible. Do not let it sit for more than 24 hours.

Personal Care

- Take showers instead of baths, as this uses less water. Limit the duration of your shower to two minutes.
- Turn off the shower while you soap your body or hair.
- Turn off the water while you shave or brush your teeth, etc.
- In emergencies, close the drain on the bathtub when you take a shower so that the water stays in the tub. Use the water to flush the toilet or water the plants outside.

Food Preparation

To get lukewarm water, turn on the hot water first and then add cold water as necessary.

- Use the least amount of water necessary to cook foods, such as stews or frozen vegetables. You will conserve nutrients as well as water.
- A pot with the lid adjusted does not let water evaporate upon boiling and also cooks the food faster, thereby using less energy.
- Use a teapot or a kettle with a lid to boil water and avoid losing water due to evaporation.
- Keeping a bottle of drinking water in the refrigerator saves water because it keeps you from pouring water from the faucet.
- In emergencies, store water in clean containers, made of plastic or glass, with the caps closed tightly. Keep them in the refrigerator and use the water economically.

Washing Dishes

- Decrease the amount of utensils that you use to prepare the food, as well as the amount of dishes and glassware you use at mealtimes. This saves water when you are washing dishes.
- When you wash dishes, use a sponge with soap and water to wash, and another sponge with hot water to rinse. Rinsing with a sponge requires less water than rinsing under the faucet.

Cleaning the House

Clean up small spills as they happen to avoid having to mop the floors frequently.

Combine domestic duties. Do them at the same time to save water. Clean the less dirty places first -- mirrors, walls, furniture, and then the floor.

The Garden

If you use a hose or sprinkler, water your lawn completely but less often.

Summary

The availability of water, now and in the future, should be the responsibility of everyone. Conserving water will also conserve energy and money.

Review

How can you know if the water that you use is safe for drinking? What are some things that you plan to do to use water more prudently?

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