

WATER -Teacher's Guide

Objective - To provide information on the importance of drinking water.

Share with participants: *"Today our discussion will be about water. We will talk about why it is important for us to drink plenty of water and brainstorm ways to do this."*

ICEBREAKER:

Ask participants to share with one another what they drink when they are thirsty: "Let's share with one another what you like to drink when you are thirsty."

After participants are finished talking about their favorite refreshments, share with participants this information:

Water is the beverage of choice for the body. Just like peanuts are the main ingredient in peanut butter, water is the main ingredient in all the fluids that make up your body. While you may survive for six weeks without food, you cannot live longer than a week or so without water. In fact, losing more than 10 percent of your body weight from dehydration can cause heat stroke. And a 20 percent loss can cause death. Water is truly the beverage of life.

Share with your participants that there are several different topics that can be discussed regarding water and hydration.

Discussion topics:

- a) How much water we need each day?
- b) What does the body do with all that water?
- c) What can excessive thirst mean?
- d) What about heat exhaustion, strokes and their prevention?
- e) What should I drink and eat to give my body water?
- f) Recipes

WATER

Ask: *"How much water do you need to drink each day?"*

You might have read or heard that you need eight to twelve glasses of water each day - from drinking water, other beverages and water in solid food. Each day, our body loses about 8 to 10 cups worth of water through sweat, urine, exhaled air and bowel movements. If you exercise, you lose more and thus need more. Getting enough water is especially important for older people. The older you are, the more vulnerable you become to dehydration. Dehydration is one of the most frequent causes of hospitalization among people over 65, and research shows that about one-half of those hospitalized for dehydration die within a year.

Your need for water actually depends on the amount of energy your body uses in a day. For most adults, 1 to 1½ liters (approximately 1 to 1 1/2 quarts) of water is needed for every 1000 calories expended. That figures to about 8 cups of water for a 2,000 calorie-a-day diet.

The Water Balancing Act

Your body loses water daily through...

Urine	4 to 6 cups
Perspiration	2 to 4 cups
Breath	1½ cups
Feces	2/3 cup

You replace water in your body through...

Water and other fluids	4 to 6½ cups
Solid food	3 to 4 1/3 cups
Water from metabolism	¾ to 1 1/3 cups

Source: The American Dietetic Association's Complete Food and Nutrition Guide (Minneapolis: Chronimed Publishing; 1996), p 174.

Refer to handout: "Why Do We Need to Drink 8-12 Cups of Water..."

If you make drinking lots of water part of your daily routine, you won't have to worry about depriving your body of one of its most important nutrients. Water is especially important when the weather is very hot since it helps control our body temperature.

Ask participants: *"For those individuals that do not like to drink water, could you share with us why?"*

1. As a group, brainstorm ways to make drinking water enjoyable. (For example; drink water COLD (refrigerate water or add ice), add a slice of lemon to it, etc.)
2. For those who respond that their tap water has an odor to it, tastes bad or it may not be safe to drink, discuss options they may take to correct their situation.

Some suggestions could be:

1. Buy bottled drinking water.
2. Install a water purifier on their tap.
3. Contact the landlord and the water company and discuss the problem with them.
4. Contact the Public Health Department.

LEAD In the mid 1980's, laws were passed prohibiting the use of lead pipes or lead solder for plumbing in homes. This is because lead can get into the water as it flows through the pipes. Lead is poisonous especially to young children and pregnant women. If someone has a concern

about lead in their drinking water have them contact their landlord about the history of their residence and have them also contact their water company and local Public Health Department. They may need to have their water tested. One of the best and inexpensive ways to protect families from lead in their drinking water is to flush the lead from their system. They can do this by running their cold water for at least 3 minutes each morning or until the water is as cold as it will get before using it for drinking, cooking or making formula. Do not use hot tap water for cooking or mixing formula. Hot water dissolves lead more quickly than cold water and concentrates lead more readily.

BOTTLED WATER Sales of bottled water have quadrupled during the past ten years. There may be a good reason to drink this product - perhaps your tap supply is temporarily shut off or is contaminated. Many people think bottled water is "healthier" and "purer" than tap water. This is not necessarily true. About 25 percent of bottled water in the United States is just processed tap water from municipal systems. Some bottled waters are high in sodium, and may lack fluoride. Some may also contain contaminants that aren't allowed in public drinking water. If your tap water comes from a municipal system economically this is probably your best choice. See handout: "Bottled Water for Emergencies"

Ask: *"How can you make sure you drink eight 8-ounce glasses each day?"* Have the group brainstorm and share ideas.

If you need some help adding water to your daily routine, try these tips:

- ◆ Put a 2-quart container of water in the refrigerator each morning. Take several drinks during the day so the container is empty by dinnertime.
- ◆ Have a glass of water with your meals. Start off with a cup of soup.
- ◆ Never pass by a water fountain without taking a sip!
- ◆ Drink water before, during and after physical activity. Consume 4 to 8 ounces of water every 15 to 20 minutes while you exercise. Don't wait until you feel thirsty.
- ◆ Carry a 32-ounce plastic squeeze bottle of water. Refill it once during the day and you'll achieve your goal of eight 8-ounce glasses.
- ◆ To make water more appealing, add a squirt of lemon or other favorite juice. Orange and lemon slices in a glass of water look pretty and make the water taste good too.

WHAT DOES THE BODY DO WITH ALL THAT WATER?

Ask: *"What does water do in the body?"* Have participants work in groups to answer this question. Below are examples of some of the things water does in the body.

- ◆ Carries nutrients throughout the body.
- ◆ Carries away waste.
- ◆ Moistens eyes, mouth, and nose.
- ◆ Keeps the skin moist.
- ◆ Regulates blood volume. Blood is over 80% water.
- ◆ Is the main component of body fluids.
- ◆ Protects against heat exhaustion and stroke.
- ◆ Acts as insulation in the cold.
- ◆ Helps carry medicines to the proper places in the body.
- ◆ Lubricates the body's joints.
- ◆ Keeps the body cool when it's hot (perspiration).

WHAT CAN EXCESSIVE THIRST MEAN?

Ask: *“What if I’m thirsty all the time?”*

Increased thirst and increased urination can be symptoms of diabetes, both Type 1 and 2. If you notice unexplained increases in thirst and urination, consult your physician to determine the cause. Some people consume excessive amounts of water and experience increased urine output without any underlying disease.

WHAT ABOUT HEAT EXHAUSTION, STROKE AND THEIR PREVENTION?

We assume that our thirst mechanism will protect us from dehydration. That if we become dehydrated, it will tell us by triggering intense thirst until we are properly hydrated. But this is not always the case. **It is possible to lose fluid so quickly that the normal thirst mechanism is overwhelmed or overridden.**

Through the activities of daily living, the average daily loss of fluid is 2 ½ quarts (about 10 cups) which is generally replaced by the fluid we drink and the food we eat. But exercise, sweating, diarrhea, temperature or altitude can significantly increase the amount of fluid required. The most common cause of increased fluid loss is exercise and sweating.

In the hot summer, heat exhaustion and heat stroke are possible. **Heat exhaustion** is not life threatening and is characterized by fatigue, nausea, lightheadedness and possibly heat cramps. Heat exhaustion usually comes on several hours after exertion and dehydration. With enough rest and water, heat exhaustion is self-correcting. To prevent heat exhaustion, be sure to consume enough water while you are exercising. Drink because you know you should, not because you feel thirsty.

Heat stroke, on the other hand, is a life-threatening emergency. Without proper care, heat stroke victims will most likely die. When our body's core temperature rises, the brain, which can only function in a very narrow temperature range, begins to fail. In an effort to cool the blood and lower the core temperature, the brain will dilate all the blood vessels in the skin. As a result, the skin become red and hot, but may be either wet or dry. As the brain overheats, the individual may become disoriented, combative, argumentative, and may hallucinate wildly. The primary thing to do is to cool the victim as rapidly as possible. If available, ice packs should be placed at the neck, armpits and groin – in that order.

To prevent both heat exhaustion and heat stroke – Stay well hydrated!

WHAT SHOULD I DRINK AND EAT TO GIVE MY BODY WATER?

Ask: *“What should you drink or eat to give your body water?”*

Of course, plain water is the most obvious answer. Juice and milk make good beverage options. Other beverage choices – coffee, tea, soft drinks and alcoholic drinks – don’t offer the nutritional benefits of milk or juice and may actually increase water loss due to the diuretic effect of alcohol and caffeine. Choose caffeine-free coffee, tea or soft drink beverages when possible.

Ask: ***“What foods are high in water?”***

We get water from many of the foods we eat. And fortunately some of the best sources pack in a lot of nutrition.

Refer to handout “Water in the Foods We Eat?” to give clients an idea of the amount of water in some common foods.

Handouts with this lesson:

“Water In The Foods We Eat?”

“Cool Summertime Beverages” recipe handout

Activities:

1. "Water, Water Everywhere" crossword puzzle
2. "Water Word Scramble"
3. "Water Taste Test"
4. "Be Cool With Water" - "Balancing Act Curriculum", pg 69
5. "How Much Water Is There In The Foods You Eat?"
6. "Bottled Water for Emergencies"
7. "Why Do We Need to Drink 8-12 Cups of Water Throughout the Day?"

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