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Elementary Program
Unit 4.6

Lesson: Salt, to Use or Not to Use

Supplies Needed:

- 4.6_LV_Salt -Visual
- 4.6_LTA_Salt-Food-Cards
- Salt measured in bags, 2300 mg and 3400 mg (optional)
- One jar with lettuce in water.
- One jar with lettuce in salt water.
- ½ teaspoon

Goals:

- Students will be able to identify foods containing salt.
- Students will know the benefits of reducing added salt intake.
- Students will be able to make better choices to balance salt intake as part of a balanced diet.

Background:
The average U.S. child consumes almost 2/3 more than the recommended amount of salt (sodium) per day. We will see how a diet high in added sodium can negatively impact one's health. The goal is not to tell children how much salt they can or cannot have in a day; rather, the idea is to empower children with knowledge about how much salt is in items (and how to read food labels) so that they can make better choices. This lesson supports the message that fresh foods are better than processed foods.

The use of sodium as a preservative came from the old practice of salting food to prevent it from spoiling. Salt can prevent the development of food borne pathogens and is added to processed foods such as cheese products, fermented foods, luncheon meats and salad dressings. In addition, sodium can bind ingredients, enhance the color of food, and improve the taste.

The American Journal of Clinical Nutrition notes that a food product has high sodium content if it contains more than 500 mg of sodium for every 100 grams. The product is considered low sodium, if the sodium content is lower than 120 millligrams for every 100 grams. The US Dietary Guidelines states that foods like pizza, yeast breads, chicken dishes and pasta account for a large percentage of high sodium foods consumed by the average American.

Lesson:
Have you all been moving more every day?

Has anyone tried moving fast for 20 minutes or more to get their endorphins/feel good hormones flowing?

Great!

I am going to give you a couple of clues to see if you can guess what we are talking about today. Don't forget to raise your hand if you want to answer. What we are going to talk about looks like sugar and most of us have it sitting on our kitchen tables. Any guesses?
(*Salt)*

(Show slide 1.) Good! Sometimes we refer to salt by a chemical name, sodium. The two are not exactly alike. Salt is made up of two minerals, sodium and chloride. So when we talk about salt today we are talking about the affects of the sodium, not the chloride.

Can anyone name some salty foods?
(*Chips, pizza, pretzels, popcorn)*

Does your body crave anything after eating salty foods?
(Something to drink; you get thirsty)

(Show slide 2.) You get thirsty because of what is happening inside your body when you have a lot of salt. Water likes to follow salt. We like to say water chases salt. When you eat salt, it first goes into your blood stream. The water in your body leaves the tissues and enters the blood stream to balance the additional salt. But now the tissues need water and send you a message by making you feel thirsty. Your body is working with lots of extra water and some people may feel bloated.

After a couple of hours, a healthy person will get rid of the extra salt and their fluid level will be back to normal. People who are already sick may not recover as well.

(Show slide 3.) Here is an example of how salt works. One jar has a crisp piece of lettuce in plain water **(Show class the example.)**. This other jar has lettuce that has been sitting in salted water. **(Show class the example.)** Notice how the lettuce in the salt water is limp and the other lettuce is still crisp. Does anyone know why? This is because the salt has taken the water from the cells in the lettuce, which was helping to make it crisp. This is similar to what happens to the tissues in our body.

When you have extra fluid in your blood it puts pressure on your blood vessels and creates stress. Having too much salt, overtime, can contribute to high blood pressure, heart disease and stroke.

Our bodies need no more than 2300 milligrams of salt each day. That is a little less than ½ teaspoon.

Can anyone guess how much added salt the average U.S. child consumes each day? (*3400 milligrams)*

That is a little more than ½ teaspoon. (*Show ½ teaspoon example.)*

We need to eat some salt to stay healthy. Salt helps maintain the right balance of fluids in our bodies. It also helps carry nerve impulses that make our muscles contract and relax.

It is important to remember that all foods contain some sodium naturally. Milk, meat, cheese and even fruits and vegetables all contain sodium naturally. These Go Foods supply all the sodium our body needs in one day.

Food manufacturers add more sodium to foods than we do when we cook at home. Sodium acts like a preservative, increases the shelf-life of processed foods and adds flavor.

Let's work together to put the food in order of their sodium content. **(Show slide 4.)**

Which food do you think has the most salt per serving? **(Have the students guess.)**

(Show slide 5.)
(Hotdog - 461 mg)
(*Flaming Hot Cheetos - 310 mg)*
(Takis - 180 mg)
(1 large egg - 169 mg)
(1 slice of Bread - 130 mg)
(*Lettuce -10 mg)*
(1 cup Strawberries – 2 mg)

Were you surprised with any of our results? This is another example of how fruits and vegetables are better snack choices. See how a cup of strawberries would be a better snack than a bag of Cheetos? (Two mg of salt compared to 310 mg of salt)

(Show slide 6.) Remember the tool that we use to help us know how much sodium is in a food product is the nutrition label. **(Point to slide.)** This is where we will look to find how much sodium is in each product. As we can see these chips have 170 mg of sodium for one serving or one ounce of chips. Now let's have you practice finding sodium on some nutrition labels.

Let's break into groups and I am going to give you all some food cards.
Let's see if you can put them in order from the highest amount of salt to the lowest amount. Then, we will share our answers with the class.

(After the activity show slide 7 with the list of food cards ranked from highest to lowest amounts of sodium.)

(If there is time, do a review.) What can we do to keep our salt intake in a healthy range? **(Show slide 8. Allow students to brainstorm and then give these answers if necessary.)**

- *Eat a whole foods instead of processed snack foods.*
- *Choose homemade food over purchased, prepared foods.*
- *Eat at fast food restaurants occasionally.*
- *Read nutritional labels and the ingredient lists.*
- *Avoid adding salt to food because we can get all the sodium we need from naturally occurring sources.*