Ohio SNAP-Ed Adult & Teen Programs
Cap Color & Fat Content: What's the Connection?

Task Topic: Dairy

Task Title: Cap Color & Fat Content: What's the Connection?

Teaching Message(s):
- ☑ When consuming dairy products like milk, cheese, yogurt, etc., choose low fat or fat free options.
- ☑ Use food labels to make better choices.

Resources: Adapted from *ChooseMyPlate.gov, Dietary Guidelines,* American Dairy Association Mideast

Objectives for the Task:
1. Identify the fat content of whole, reduced fat, low fat, and skim milk using food labels.
2. Describe why using cap color is not an accurate way to determine fat content.

Materials needed for the Task (including Handouts):
- Fact Sheet – Low Fat Milk is a Healthy Choice
- Place cards and recipes for milk fat demonstration

Food and Equipment for Demonstration and Sampling:
- Quart of skim milk
- 10 ounces vegetable oil
- 4 clear glasses, 8-10 ounces each
- Liquid measuring cup
- Teaspoon (for measuring oil)

General Materials List:
- Flip chart paper
- Thought box
- Highlighters
- VOICE principles
- Post-it notes
- Markers
- Masking tape
- Participant evaluation forms
- Index cards
- Pens
- Name tags

Preparation:
- Prior to the class, measure out 8 ½ ounces of vegetable oil.
- Set up a table in the front of the room for the milk and fat demonstration. The table should contain 4 clear glasses that are 8-10 ounces in size. Set out place cards and recipes in front of each glass to designate skim, 1% (low fat) milk, 2% (reduced fat) milk, and whole milk. Also set out the quart of milk, the bottle of tinted vegetable oil, and the liquid measuring cup and teaspoon.

Key Points to Review:

- Introduce yourself. Give brief description of the program (program name, length of sessions, duration of program).
- Include your purpose as the facilitator (i.e. to introduce ideas that are supported by research, to give them the tools to make informed decisions about areas that affect their health & nutritional needs, and to identify topics that might be covered based on the curricula used in the program).
- Review the V.O.I.C.E. Principles.
- Ask participants to sign in on the SNAP-Ed sign-in sheet.
- Remember to pass out the appropriate participant evaluation form at the end of the session, making sure to read the questions out loud to the participants.

Transition:

Today we will look at the various fat content of full-fat, reduced fat, low fat, and fat free dairy products. We'll learn that judging a milk container by its cap color (or carton color) isn't always a fool-proof way to determine how much fat the milk contains.

Before we start, let's talk about the importance of physical activity. Along with getting adequate calcium from dairy products, getting regular physical activity – defined as 30 minutes of moderate to vigorous activity most days of the week – is important to keeping our bones strong and muscles functioning – especially our heart muscles! What is one type of activity you enjoy doing? How often do you do this?

Physical activity guidelines can be found at the following websites:

- *Office of Disease Prevention and Health Promotion: www.health.gov/paguidelines/*
- *CDC: http://www.cdc.gov/physicalactivity/everyone/guidelines/index.html*
- *President's Council on Fitness, Sports, and Nutrition: www.fitness.gov/be-active/physical-activity-guidelines-for-Americans/*

Anchor

If you have a gallon (or half-gallon) jug of milk in your refrigerator, what color is the cap? What does the color of the cap indicate about how much fat is in the milk? Why can using the cap color be misleading about the fat content of milk?

Add

All milk contains important nutrients like calcium, Vitamin D, and protein. But not all milk is created equal. The fat content of milk can vary drastically, ranging from no fat (fat-free or skim milk) to 3.25% milk fat (whole milk). Yet, regardless of the fat content, an 8-oz. cup of milk has the same amount of protein, calcium, and Vitamin D. Milk with more fat also has more calories – quite a bit more, depending on the fat content.

It can be confusing to understand what the fat content of milk is by looking at the cap color. This is because there is no "standard" for matching cap colors to milk fat content. Whole milk, which contains 3.25% fat, usually has a red cap. Reduced-fat milk, which contains 2%

fat, typically has a dark blue cap. But the cap colors for low-fat milk, which has 1% fat, and skim milk, which is fat-free, can differ from brand to brand. The best way to gauge how much fat is in the milk is to read the label.

Do you usually drink whole milk? Switching to fat-free (skim) milk will decrease your calorie and fat intake while you continue to get the same critical nutrients from milk. However, it's a good idea to make the switch gradually, which allows your taste buds to adjust. Try reduced fat (2%), then progress to low-fat (1%) and finally to fat-free (skim) milk, over a period of several weeks. Another way to make the transition easier is to blend some fat-free milk with whole milk, gradually using more fat-free milk and less whole milk.

Apply

Instruct participants to gather around a table in the front of the room for the demonstration.

Milk that we buy in the store is homogenized, which means the fat has been dispersed into the liquid milk in tiny droplets so that the fat stays mixed in with the milk uniformly. Otherwise, the layer of fat would float up to the top, because the fat is less dense than the water portion of milk. So we don't necessarily see, visually, how much fat is in the milk we drink.

Skim (fat free) milk has about 0.5 g fat per 8 ounce glass, 1% (low fat) milk has 2.5 g fat per 8 ounce glass, 2% (reduced fat) milk has 5 g fat per 8 ounce glass, and whole milk, which has 3.25% milk fat, has 8 g fat per 8 ounce glass. While these may seem like small amounts, this fat translates to a lot of excess calories. Let's do a visual exercise to how many of the calories in a glass of milk come from fat, keeping in mind that each gram of fat has 9 calories.

There are four glasses on the table, one for each type of milk. Next to each milk glass is a "recipe" for how to make the ratio of milk to oil. Let's measure out the liquid milk for the each of the four types of milk. Now, let's add the tinted oil to each glass of milk. The oil represents the proportion of calories in the glass of milk that comes from fat.

Allow participants to measure out the liquid milk and tinted oil for each of the four glasses.

What does this exercise show you about the fat content of the various kinds of milk? What are your thoughts about the proportion of calories coming from fat in the skim milk compared to some of the other kinds of milk?

Away

How ready are you to switch to a lower-fat milk? What things will need to be in place in order for you to make this change? *Pass out a copy of the Fact Sheet – Low Fat Milk is a Healthy Choice to each participant for them to read at home.*

Facilitator's Notes:

Optional: for Apply, you may use the Milk Fat Comparison Display from Health Edco if you have access to this resource.

Facilitator's Checklist:

- ☐ Have I gathered all of the pertinent materials needed for the lesson?
- ☐ Did I spend the requisite amount of time covering each targeted message?
- ☐ Did I apply the principles of adult learning to my program?
- ☐ Did I create a comfortable and functional learning atmosphere?
- ☐ Did I fill out a Program Log with the necessary program information?
- ☐ Did I ensure that all participants signed the sign-in sheet?
- ☐ Did I read the survey instrument out loud to the participants?
- ☐ Did I collect all requisite survey instruments needed for today's lesson?