

ENAFS Healthy Living Program

MODULE 5: Healthy Eating for Elders

Lesson 4: Mooove to Lowfat or Fat Free Milk

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This lesson was developed as part of the *Mooove to Lowfat or Fat Free Milk* campaign of the Florida Interagency Food and Nutrition Committee. The Committee includes the Florida Department of Children and Families, Florida Department of Education, Florida Department of Elder Affairs, Florida Department of Health, Food and Drug Administration - Florida District Southeast Region, University of Florida IFAS Extension, and Suwannee River Area Health Education Center.

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MODULE 5: Healthy Eating for Elders

Lesson 4: Mooove to Lowfat or Fat Free Milk

GOAL

The overall goal of this lesson is to encourage participants who consume whole or reduced fat (2%) milk to switch to lowfat (1%) or fat free milk.

CONCEPT

Milk is a major contributor of fat and saturated fat in the American diet. High intake of fat and saturated fat contributes to obesity, diabetes, cardiovascular disease, and some cancers, conditions that are common in this country. By moooving to lowfat or fat free milk, elders can continue to get the nutritional benefits of milk, including protein, calcium, and vitamin D, without the excess fat and saturated fat of whole or reduced fat milk.

LEARNING OBJECTIVES

After completing this lesson, participants will know:

- health risks of diets high in fat and saturated fat.
- health benefits of switching from higher fat to lower fat milk.
- that many people with lactose intolerance can tolerate small amounts of fluid milk.
- that lowfat milk tastes good.

BEHAVIORAL OBJECTIVES

After completing this lesson, participants who drink whole or 2% milk will switch to 1% or fat free milk. Participants who do not drink milk on a regular basis will be motivated to begin drinking 1% or fat free milk.

ACTIVITIES (total estimated time 32-40 minutes)

1. Icebreaker (2-5 minutes)
2. Discussion (5-10 minutes)
3. “Test Your Taste Buds” (15 minutes)
4. “Milk Mixer ” (5 minutes) - Can be given out as homework if time is limited.
5. Evaluation (5 minutes)

MATERIALS NEEDED

Icebreaker

You will need an overhead projector, plain wall space or projection screen, and an overhead or a sign copied onto colored paper and pasted onto cardboard.

Overhead master: *Winking Cow*

Interactive Discussion

To facilitate this discussion, you may want to use an overhead projector, a board, and/or signs. The materials you would need to obtain for each option are listed below.

Discussion with Overhead Projector:

Overhead projector

Plain wall space or a projection screen (5' x 6' or more is recommended)

Blank transparencies

Overhead masters (camera-readies enclosed) to be copied onto transparencies:

Health Risks of High Fat Diets

Milk Packs a Nutritional Punch!

What About Lactose Intolerance?

Moooving to Lowfat or Fat Free Milk

Discussion with Board and/or Signs:

Chalkboard, whiteboard, and/or flip chart with stand

Chalk or colored markers to write on the board

Signs - copy sign masters (camera-readies enclosed) onto colored paper and paste on pieces of cardboard or foam board:

See above list

Interactive Activities

“Test Your Taste Buds”

Instructions for doing this taste test are included in this lesson.

“Milk Mixer”

Word scramble camera-ready enclosed.

Lesson Evaluation

You will need copies of the evaluation form for this lesson. Please help us evaluate the ENAFS lessons by having as many groups as possible complete the evaluation form. See Activity 5 for instructions.

Handouts (camera-ready copies enclosed)

- *Mooove to Lowfat or Fat Free Milk*
- ENAFS *Evaluation* form

BACKGROUND INFORMATION

DIET AND CHRONIC DISEASE RISK

Lifestyle, including diet, can affect risk for obesity, diabetes, cancer, heart disease, stroke, and osteoporosis. Although it's best to begin healthful eating habits at a young age, it's never too late to make positive lifestyle changes. This is the basic tenet of the ENAFS program, and it holds true for the topic of this lesson: Moooving to lowfat or fat free milk. By making this one simple change, older adults can decrease their risk for obesity, diabetes, and heart disease, all of which are related to fat consumption.¹

Overweight and Obesity

Overweight and obesity are growing health concerns in the U.S. Risk of death from cardiovascular disease and cancer increases with an increase in body mass index (Calle 1999). These diseases are often related to poor diet and lack of physical activity. In fact, unhealthy lifestyles are estimated to be associated with 300,000 to 580,000 deaths each year in the U.S. Other health effects of overweight and obesity include increased risk for gallbladder disease and sleep disturbances. Due to social pressures to be thin in this country, large people may experience low self-esteem and depression (Satcher 2001).

Racial and ethnic minorities (particularly women) and members of low income families are more likely to be overweight or

obese (Satcher 2001). This may be related to genetic predisposition and/or lifestyle.

Diabetes

The overall incidence of diabetes in the U.S. increased 49 percent between 1990 and 2000. About 800,000 new cases are diagnosed each year. Risk of diabetes increases with age (CDC 2001; NCHS 2001).

Cardiovascular Disease

Heart disease is the leading cause of death in men and women in this country. Each year, more than 950,000 persons die from cardiovascular disease, including heart disease and stroke. Risk of cardiovascular diseases also increases as people age (NCHS 2001).

MILK CONSUMPTION PATTERNS

The Food Guide Pyramid recommends two to three servings of milk products per day. Choosing lowfat or fat free milk and milk products helps us meet the Dietary Guidelines recommendation for limiting fat intake to 30 percent or less of total calories (HNIS 1992). Two servings per day of milk or milk products are appropriate for most young children and adults. However, adults **over the age of 50** need three servings of milk products daily to get the calcium and vitamin D they need. Current intake in the U.S. is about 1.6 servings of milk products per day (USDA 2000).

¹ If the lesson encourages them to drink more milk, it can also have an impact on their risk for osteoporosis.

Whole milk consumption is decreasing in the U.S. In the late 1960s, Americans consumed four times as much whole milk as lower fat milk (2%, 1%, and fat free). By the late 1980s, reduced-fat milk outsold whole milk (Putnam 1991).

WHY MOOOVE TO LOWFAT OR FAT FREE MILK?

Milk products are a major source of fat in the American diet. People who drink high fat milk can lower their fat and saturated fat intake by making the switch to lower fat milk (Lee 1998). Lower fat diets can reduce serum cholesterol and the risk of cardiovascular disease and mortality. It can also reduce risk of diabetes.

WHAT ABOUT LACTOSE INTOLERANCE?

Some older adults avoid milk because of lactose intolerance. They are unable to digest the milk sugar lactose due to a deficiency of the enzyme lactase. However, some people who are lactose intolerant can comfortably drink small amounts of milk throughout the day without discomfort. Others cannot tolerate even small amounts of regular milk.

To improve milk digestion, elders should be encouraged to drink milk with food rather than on an empty stomach. Also, they can try small amounts (four ounces) throughout the day. If they still cannot digest regular milk, they can try lactose-reduced milk. This type of milk is now readily available in grocery stores, and can be found in lowfat and fat free varieties.

CULTURAL DIFFERENCES

Older Asians may have a cultural bias against drinking milk. It may be seen as a food fit only for babies. When working with people with this belief, we need to respect their point of view. Also, many Asians are lactose intolerant (Kittler 2000).

We can point out the nutritional benefits of milk for older people who choose to drink it. Asian elders may eat other rich sources of calcium, such as tofu and fish bones, that others may not include in their diets.

Lactose intolerance is also common among African Americans, estimated at 60 to 90% of the population (Kittler 2000). This issue is likely to be a major topic of conversation in groups that include African Americans. Different studies show varying degrees of acceptance of milk and milk products among African Americans (Kittler 2000). You can make the suggestions mentioned previously to see if they will try small amounts of milk or milk with added lactase.

SUMMARY

High fat milks (whole and 2%) contribute significantly to fat and saturated fat consumption in the U.S. Changing milk consumption patterns to lower fat choices can reduce fat and saturated fat intake while maintaining consumption of critical nutrients like protein, vitamin D, and calcium.

People with lactose intolerance may be able to tolerate small amounts of milk or milk with added lactase. Persons with a cultural bias against milk may not be willing to drink it at all.

ACTIVITY 1: INTRODUCTION/ICEBREAKER

Show the sign or overhead:
Winking Cow

Remember: After each question, give clients time to respond before providing answers!

Q: *This cow looks like she has a secret. Why do you think she is winking like this?*

A: *She knows that the milk she provides is great food for you as mature adults. She also knows something else about milk . . .*

Q: *Can you guess what that might be?*

A: *There are different types of milk and some are better choices for you than others. Let's see what these choices are and how milk can fit into your eating style.*

ACTIVITY 2: INTERACTIVE DISCUSSION: Mooove to Lowfat or Fat Free Milk

Show the sign or overhead:
Health Risks of High Fat Diets

Reminder: Give clients time to respond!

FAST FACTS

About 300,000 deaths a year are associated with obesity!
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You may have heard that the way we eat influences our risk for many chronic diseases.

Q: *What types of eating habits increase our risk for these conditions or diseases?*

A: *The main dietary habit that affects our risk for being overweight, or having diabetes, heart disease, stroke, or cancer is eating too much fat! For heart disease and stroke, eating too many foods high in **saturated** fat is also a risk factor.*

Q: *Who can tell me one of the major sources of fat and saturated fat in the American diet?*

A: Milk and milk products contribute lots of fat and saturated fat to the American diet. But milk is also a great source of nutrients that are especially important to older people.

Q: Who can tell me one of the nutrients that milk provides that is important for our health?

*A: Great!
Milk provides **calcium**, which we need for healthy bones and teeth.*

*It provides **protein**, an important nutrient that helps keep our immune system and muscles healthy.*

***Fortified** milk has **vitamin D**, a nutrient that many older people do not get enough of, either through their diets or from exposure to sunlight.*

Show the sign or overhead:
Milk Packs a Nutritional Punch!

EXTRA, EXTRA . . .

Vitamin D and Elders

For most people, the major source of vitamin D is exposure to the sun's rays. But, as we get older, our skin is less able to make vitamin D from sunlight.

It's important for older people to get vitamin D in their diets to meet their Adequate Intake (AI) of 15 µg (600 IU) daily.

Show the sign or overhead:
What About Lactose Intolerance?

Q: How many of you are lactose intolerant? What exactly does that mean?

A: Lactose intolerance is a condition (NOT an allergy...) in which a person lacks the enzyme (lactase) needed to break down the sugar in milk (lactose).

Because the lactose doesn't get digested, it stays in the gut (intestines) and produces gas and stomach cramps. Sound familiar to anyone??

NOTE: Give them a chance to talk about their experience with lactose intolerance.

*The good news is that many people with lactose intolerance **can** drink small amounts of milk with no ill effects. If you haven't tried this in a while, perhaps you should, just to see if you can drink ¼ cup to ½ cup of milk at a time. That would give you a nutritional boost during the day. It also helps to drink milk with food rather than on an empty stomach.*

Q: *Have any of you tried lactose-reduced milk?*

If no one has tried it, explain that it has less of the milk sugar lactose. Many people with lactose intolerance can drink it with no ill effects. It's also available in lowfat and fat free forms!

Show the sign or overhead:
Moooving to Lowfat or Fat Free Milk

Q: *Why do you think we're suggesting that you Mooove to Lowfat or Fat Free Milk?*

A: *Lowfat (1%) and fat free milks have all the good nutrition of whole and reduced fat (2%) milk, just with less fat! And most of us would benefit from eating less fat.*

Remember all of the conditions and diseases that are increased when we eat a high fat diet? Well, we can decrease our risk by choosing to eat a well-balanced and lowfat diet. It's a great thing to teach our children and grandchildren too!

Q: *Does anyone have any questions before we move on to our first activity?*

Okay, now we're going to move on to Test Your Taste Buds.

ACTIVITY 3

Test Your Taste Buds

This taste test helps elders decrease one of the barriers to selecting lower fat milks -- the belief that lowfat milk does not taste good. Taste tests often find that people cannot tell the difference between different types of milk, especially when they cannot see the milk samples. This taste test compares lowfat (1%) milk with reduced fat (2%) milk.

It will be helpful to have one or more volunteers work with you on this activity.

Instructions:

- ~ Prepare the supplies. Be sure to keep milk very cold. You will need:
 - Cups, 3 oz, preferably opaque
 - Muffin tins to hold cups with milk (optional)
 - Marker to label cups "A" and "B"
 - Data sheets (camera-ready enclosed)
 - Pens or pencils
 - Cooler (or access to a refrigerator)
 - Milk: reduced fat (2%) and lowfat (1%), 1 oz of each per person, about ½ gallon of each type of milk for 50 people
(Be sure to cover the labels on the milk cartons so participants can't see the type of milk. Mark the milk cartons "A" and "B" and keep track of which is 1% and which is 2%!)
 - Paper towels (for clean up)
 - Garbage can with liners for trash
- ~ Have each participant taste the two milks in random order. They should say whether or not they like each one, NOT compare them. For each participant and each type of milk, mark on the data sheet (enclosed) whether they liked ("L") or disliked ("D") the milk. Also mark down any relevant comments from the participants about the taste of the milk.
- ~ At the end of all the taste tests, while you do activity 4, a volunteer can add up the Likes and Dislikes from the data sheet for you to report to the group later. Discuss how the two milks compared and if they thought they could drink either one. Remind them that lowfat milk has all the great nutrition of reduced fat milk, but without as much fat and saturated fat.

ACTIVITY 4

Milk Mixer

This word scramble (camera-ready enclosed) will reinforce the concepts presented in the lesson. Participants will be reminded that milk is a nutritionally important food, and that lowfat or fat free milks are better choices.

Instructions:

1. Have pencils available for all participants who want to do this activity.
2. *Milk Mixer* can be handed out to be done at a later time or at home, as “homework,” if time is a concern.

ACTIVITY 5

Evaluation

Hand out the evaluation form. The following statement has been approved by the University of Florida Institutional Review Board as appropriate to read to the program participants to be sure they understand that their responses will not be identified with them personally. It is a way of protecting their rights.

þ Encourage involvement by giving out a reward - Check with local hospitals, pharmacists, or department stores for prizes. Even small prizes like refrigerator magnets, pens, or writing tablets are appreciated. Just make sure any message included is appropriate for our message ... healthy eating and living for elders.

Read to the participants:

“Thank you for being a part of this ENAFS lesson. We hope that you enjoyed yourself! Please help us do a better job of serving you by completing this short evaluation. You can see that there is no place for you to write your name on this form; that’s because we want to guarantee that your opinions will be kept private. We will use this information solely to learn how valuable our program is to all of you, and to help improve it based on your comments. You do not have to answer any question you do not wish to answer and you can stop at any time. It should take about five minutes to fill out the evaluation form. We are not providing any compensation for filling out the form. [Or: Everyone who fills out the form will receive (small prize) .]

If you have any questions about this evaluation, you can ask me after class or call me later at _____. Any questions or concerns you have about your rights as a participant can be directed to the University of Florida Institutional Review Board; I have their address and telephone number here if you’d like to contact them.¹”

Thanks for helping us evaluate the ENAFS lessons and the overall program. Please summarize the results of this evaluation for your own use, and send a copy of the summary to Dr. Linda Bobroff, University of Florida, PO Box 110310, Gainesville, FL 32611-0310. Please include your name, county, a telephone number, and email address if available.

¹ University of Florida Institutional Review Board, PO Box 112250, Gainesville FL 32611-2250 (352) 392-0433

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ATTACHMENTS

Consumer Handout Masters

- *Milk Mixer*
- *Mooove to Lowfat or Fat Free Milk*
- ENAFS *Evaluation* form

Overhead/Sign Masters

- Winking Cow
- Health Risks of High Fat Diets
- Milk Packs a Nutritional Punch!
- What About Lactose Intolerance?
- “Moooving” to Lowfat or Fat Free Milk

Masters for Educators

- ENAFS *Reporting Form* (camera-ready enclosed)
- Test Your Taste Buds - Data Sheet