



Milk Group

Get your calcium-rich foods



UNIVERSITY OF ILLINOIS
EXTENSION
FOOD STAMP NUTRITION EDUCATION
EXPANDED FOOD AND NUTRITION
EDUCATION PROGRAM



Dairy

(teacher)

Sample question:

“What are some dairy foods you and your family like to eat?”

Dairy foods are important because they are the best source of calcium.

Milk is also rich in vitamin D which helps our body absorb calcium.

Teens and adults should have 3 cups (3 servings) and children (ages 2 to 8)

2 cups (2 servings) of fat-free milk,

low-fat milk, or equivalent milk products (yogurt and cheese) every day.

What counts as a 1-cup serving?

1 cup of yogurt

1 1/2 ounces of natural cheese
(cottage cheese, Swiss, Cheddar)

2 ounces of processed cheese
(American cheese)

Calcium-Rich Dairy Foods

A 1 cup serving of milk is equal to:

1 cup of yogurt

1 1/2 ounces of hard cheese
(cottage cheese, Swiss, Cheddar)

2 ounces of processed cheese
(American cheese)



Dairy 3

*The recommendation of 3 cups of milk every day is based on a 2,000 calorie diet. If your recommended caloric intake is less than 2,000 calories/day you may need to drink less than 3 cups of milk/day.

Go to www.mypyramid.gov for personalized nutritional recommendations.

Dairy 2

Calcium-Rich Dairy Foods

One - cup serving of milk is equal to:

1 cup of yogurt

1 1/2 ounces of hard cheese
(cottage cheese, Swiss, Cheddar)

2 ounces of processed cheese
(American cheese)



(teacher)

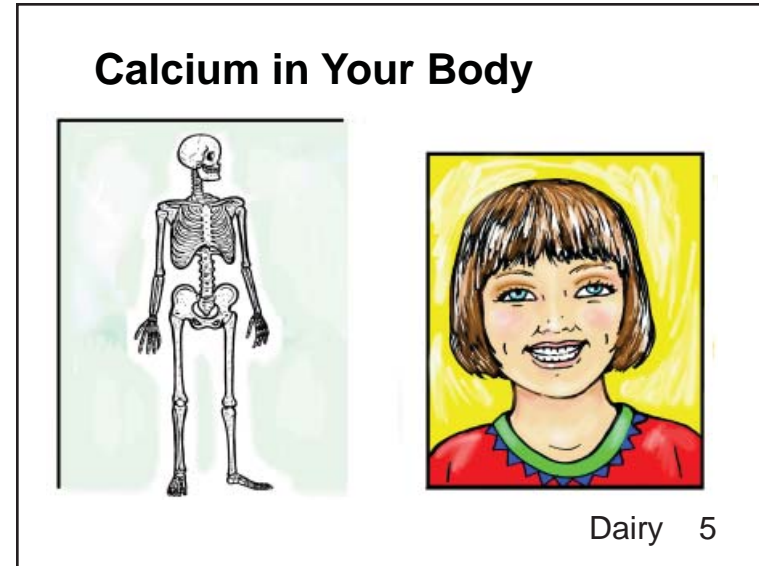
Share with participants:

“Milk, cheese and yogurt contain calcium needed for strong bones and teeth.”

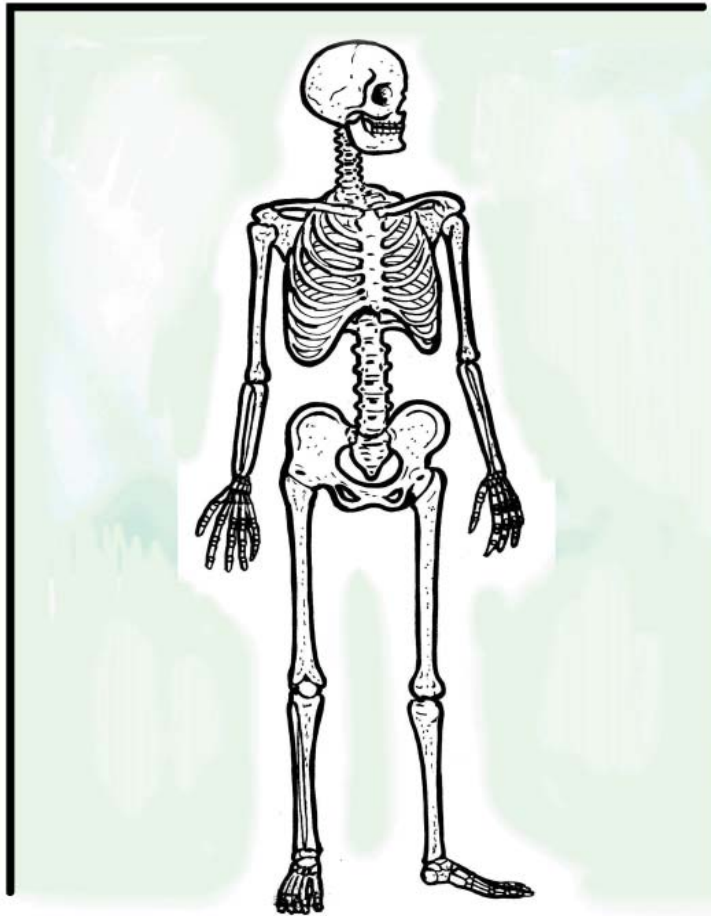
Dairy foods contain calcium.

You need calcium for several reasons.

- 1. Calcium is needed to build and maintain strong bones and teeth.**
Our bones are constantly losing calcium and it needs to be replaced.
- 2. Calcium is needed for prevent osteoporosis,** a disease where bones become fragile and thus more likely to break.
- 3. Some calcium is needed in the blood** to help keep nerves, muscles and the heart working properly.



Calcium in Your Body



(teacher)

Share with participants:

“It is difficult to get enough calcium in your diet unless dairy products are included each day. Let’s look at other dairy foods and see how much you would have to eat to get the same amount of calcium as in 1 cup of milk.”

The amount of calcium in 1 cup of milk is equal to the calcium in:

2 cups Cottage cheese



1 cup Yogurt



1 ½ ounces Cheddar or Swiss cheese



2 ounces Processed cheese food



Dairy 7

Amount to equal calcium in 1 cup of milk:

| | |
|-----------------------------|------------|
| Cottage cheese | 2 cups |
| Yogurt | 1 cup |
| Aged cheese; Cheddar, Swiss | 1 ½ ounces |
| Processed cheese food | 2 ounces |

The amount of calcium in 1 cup of milk is equal to the calcium in:

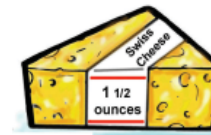
2 cups Cottage cheese



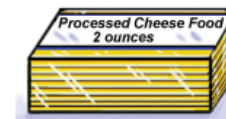
1 cup Yogurt



1 1/2 ounces Cheddar or Swiss cheese



2 ounces Processed cheese food

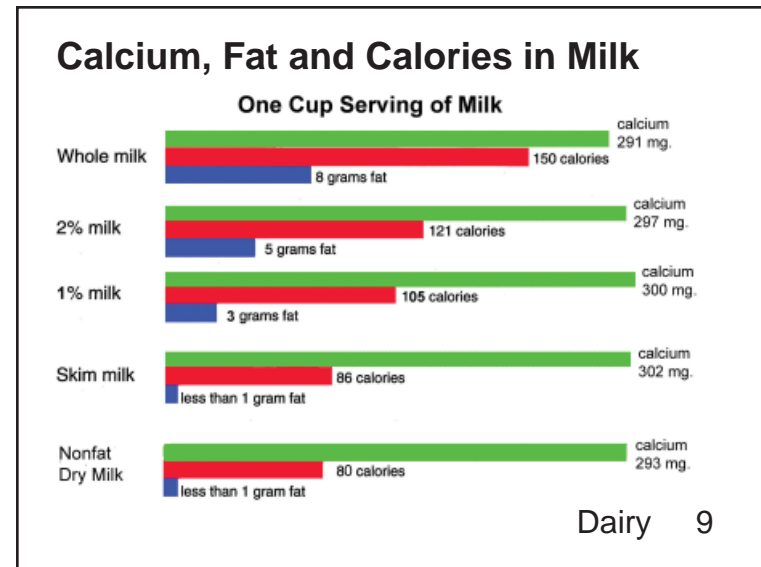


(teacher)

Sample question:

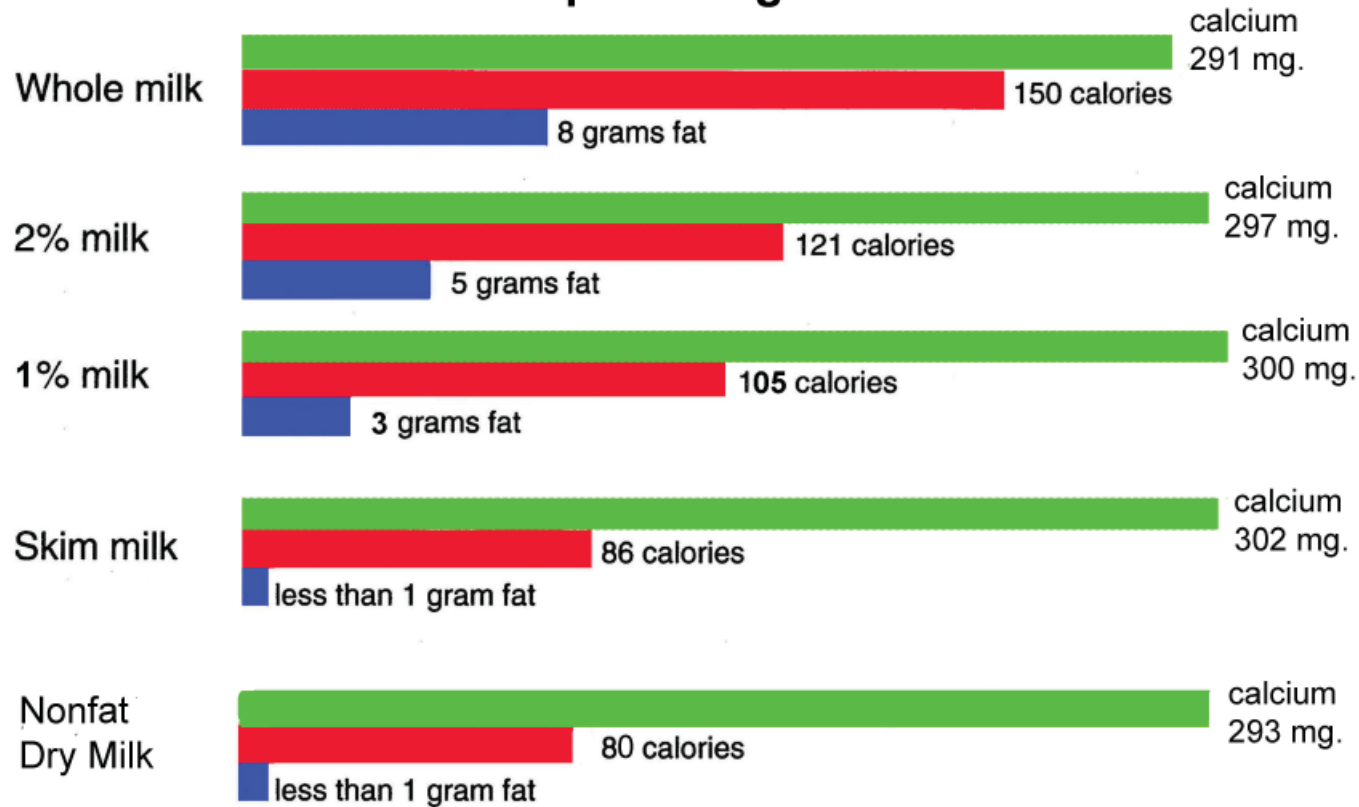
“How are whole milk, 2% milk, 1% milk, and fat-free (skim) milk different?”

- The milk products on this chart have about the same amount of calcium (300 mg), but the amount of fat and calories do vary.
- You can decrease the amount of fat and calories in your diet by choosing low-fat milk products.
- Skim milk is not recommended for children under 2 years of age.
- Gradually switch to a low-fat (skim or 1%) milk by mixing half of your whole milk with half of a low-fat milk. Over time continue to add more of the low-fat milk and you increasingly become used to the flavor.



Calcium, Fat and Calories in Milk

One Cup Serving of Milk



(teacher)

Share with participants:

“Nonfat dry milk is an inexpensive dairy product that is rich in calcium and low in fat and cholesterol.”

Nonfat dry milk is made by removing water from pasteurized skim milk.

Storage

- Store nonfat dry milk on a shelf in a cool, dry place. For best quality, use within 1 1/2 to 2 years.
- Store opened nonfat dry milk in a tightly covered container.
- After mixing milk with water (reconstituting), cover the milk and store in refrigerator. Use within 3 to 5 days.

Uses & Tips

- Use reconstituted nonfat dry milk in place of fresh milk for beverages and for cooking.
- Use in recipes such as breads, cakes, soups, gravies, sauces, mashed potatoes, and custards.
- Add nonfat dry milk powder to meat loaf, milk drinks, cream soups, and pudding recipes to increase calcium, protein and vitamin A content.

Nonfat Dry Milk

Use reconstituted nonfat dry milk in place of fresh milk in recipes.

Add nonfat dry milk powder to meat loaf, milk drinks, cream soups, and pudding recipes.

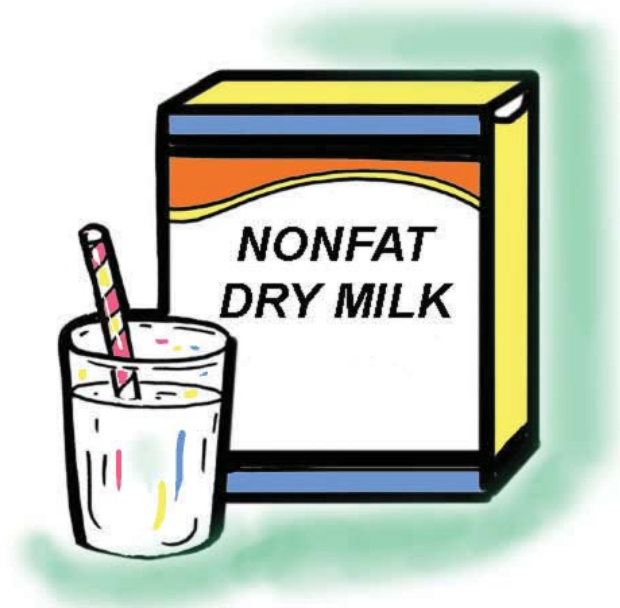


Dairy 11

Nonfat Dry Milk

Use reconstituted nonfat dry milk in place of fresh milk in recipes.

Add nonfat dry milk powder to meat loaf, milk drinks, cream soups, and pudding recipes.



(teacher)

Share with participants:

“Dairy foods come from animals so they contain fat and cholesterol.”

- Fats and cholesterol are needed by the body but too much of these can be unhealthy for you.
- Choose low-fat milk products such as low-fat yogurt, low-fat cheese, light (reduced-fat) ice cream, buttermilk, condensed milk, skim milk, and low-fat chocolate milk.
- Children under the age of two should not have low-fat milk products because they need fat for brain development.

Choose Low-fat Dairy Foods

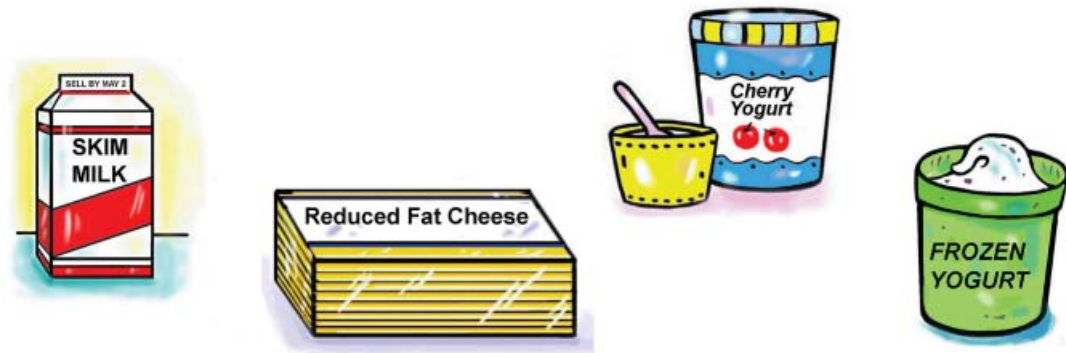
- Fats and cholesterol are needed by the body but too much of these can be unhealthy for you.
- Choose low-fat milk products such as low-fat yogurt, low-fat cheese, light (reduced-fat) ice cream, buttermilk, condensed milk, skim milk, and low-fat chocolate milk.
- Children under the age of two should not have lower fat milk products because they need the fat for brain development. After the age of two it is ok to have low-fat products.



Dairy 13

Choose Low-fat Dairy Foods:

- Fats and cholesterol are needed by the body but too much of these can be unhealthy for you.
- Choose low fat milk products such as low-fat yogurt, low-fat cheese, light (reduced-fat) ice cream, buttermilk, condensed milk, skim milk, and low fat chocolate milk.
- Children under the age of two should not have lower fat milk products because they need the fat for brain development. After the age of two it is ok to have low-fat products.



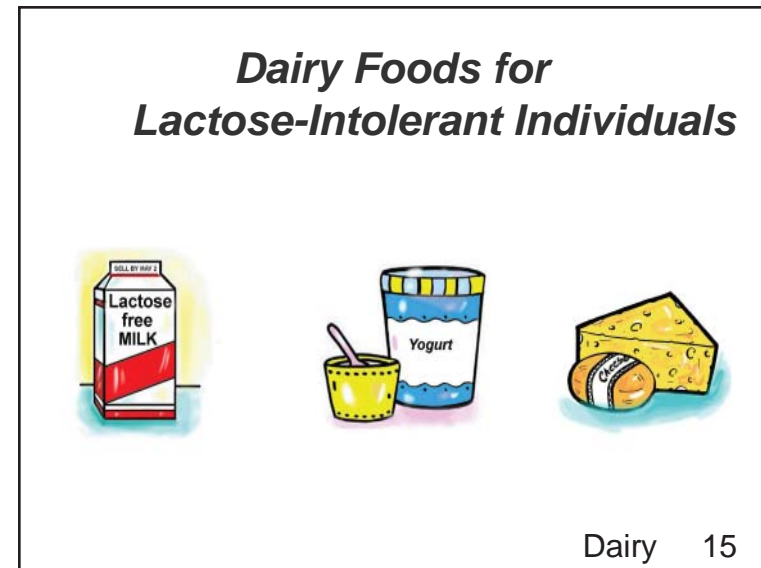
(teacher)

Sample question:

“Do you like milk but it doesn’t seem to like you?”

If you are lactose intolerant* try the following tips:

- Eat dairy foods as part of a meal rather than alone.
- Eat smaller, more frequent portions of dairy foods.
- Choose aged cheeses (Swiss, Colby, Parmesan, and cheddar), they are naturally lower in lactose.
- Try dairy foods made with active cultures such as yogurt.
- Other options: Buy lactose-reduced or lactose-free milk, add a lactase enzyme (tablets or drops) to your milk before drinking it, or take a lactase supplement before eating lactose-rich foods.



For teacher:

Lactose Intolerance: Lactose is a natural sugar found in milk products. Our bodies digest the lactose with an enzyme called lactase. Some individuals produce too little lactase to digest the lactose. Leftover lactose is fermented by healthy bacteria in the small intestine. However, the fermentation may cause uncomfortable side symptoms such as nausea, cramping, bloating, abdominal pain, gas and diarrhea.

Dairy Foods for Lactose-Intolerant Individuals



(teacher)








Share with participants:

“There are non-dairy foods that have calcium.”

Examples of non-dairy foods that have calcium:

- broccoli
- calcium-fortified tofu (check the food label)
- kale
- spinach
- calcium-fortified orange juice
- canned salmon or sardines with soft edible bones
- calcium-fortified soy milk

Non-Dairy Foods with Calcium

| | | | |
|---|-------------------------------------|---|--|
|  | spinach |  | soy milk fortified with calcium |
|  | orange juice fortified with calcium |  | canned salmon or sardines with soft edible bones |
|  | tofu |  | kale |
| | |  | broccoli |

Dairy 17

Non-Dairy Foods with Calcium



spinach



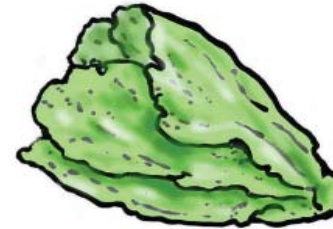
soy milk
fortified
with calcium



orange juice
fortified with
calcium



canned salmon
or sardines with
soft edible bones



kale



tofu



broccoli

(teacher)

Share with participants:

“There are three ways to build healthy bones and teeth.”

1. Drink plenty of milk, and eat dairy products like cheese and yogurt.

The calcium in these foods is well absorbed by the body.

2. Get some sunshine because it helps your skin make vitamin D.

You need vitamin D to help your body use calcium. Ten to 15 minutes of sunshine 3 times weekly is adequate to produce the body’s requirement of vitamin D. Too much sunlight increase your chances of skin cancer. Tanning salons are not recommended to help your body make vitamin D.

3. Exercise.

It strengthens not only your muscles and heart but also your bones. Specifically for your bones you need to do weight-bearing exercise, which is any activity you do on your feet that works your bones and muscles against gravity. (Swimming and bicycling are not weight-bearing activities.)

How to Build Healthy Bones

1. Eat dairy foods

2. Get a little sunshine (free vitamin D)

Ten to 15 minutes of sunshine 3 times weekly

3. Exercise



Dairy 19

Weight-bearing activities:

- Brisk walking, jogging and hiking.
- Yard work such as pushing a lawnmower and heavy gardening.
- Team sports such as soccer, baseball and basketball.
- Dancing, step aerobics and stair climbing.
- Tennis and other racquet sports.
- Skiing, skating, karate and bowling.

How to Build Healthy Bones

1. Eat dairy foods

2. Get some sunshine (free vitamin D)

Ten to 15 minutes of sunshine 3 times weekly

3. Exercise



(teacher)

Sample question:

“Where is most of the calcium stored in your body?”

Most calcium is stored in your bones and teeth.

Calcium is stored in the bones and teeth to keep them hard and strong.

- Bone breakdown and build up occurs throughout life. Bone build up is greater than bone breakdown during growth, usually during teen years. Later in life, the process is reversed; bone breakdown is greater than build up. However, you can slow the rate of bone loss in later life by building strong bones during youth. Strong bones can be built and maintained by eating adequate amounts of calcium and being physical active.

Your body is like a calcium bank: you deposit calcium into your “bone bank” when you are young to build bones. Then, later in life, you can draw upon these reserves when your body may need it.

Calcium in your Bones

Section of bone showing normal bone density:



Normal Bone

Section of bone showing osteoporosis/
reduced bone density:



Osteoporotic Bone

Dairy 21

- The more calcium you deposit into your “bone bank” when you are young, the more calcium “savings” you will have to withdraw later in life.

Insufficient calcium storage could lead to osteoporosis later in life.

Osteoporosis is a condition of thin, brittle bones. Bones can become so weak that they cannot support your body weight. This weakness may lead to broken bones including spine and hip bones.

Calcium in your Bones

Section of bone showing normal bone density:



Normal Bone

Section of bone showing osteoporosis / reduced bone density:



Osteoporotic Bone

(teacher)

Sample question: **“How do you know if you are at risk of getting osteoporosis?”**

Osteoporosis Risk Factors (What influences the likelihood/chances that you will have osteoporosis.)

- **Age.** With age risk increases. Bones may become weaker with age.
- **Gender.** Women have a greater risk. Women have less bone tissue, and lose bone more quickly than men due to menopausal changes.
- **Family and Personal History of Adult Bone Fractures.** Susceptibility to bone fracture may be hereditary.
- **Race.** Caucasian and Asian women are more likely to develop osteoporosis. However, African American and Hispanic women are at significant risk for developing the disease.
- **Bone Structure and Body Weight.** Small-boned and thin women (under 127 pounds) are at greater risk.
- **Menopause/Menstrual History.** Normal or early menopause (brought about naturally or because of surgery) increases your risk of developing osteoporosis. In addition, women who stop menstruating before menopause due to such conditions as eating disorders, or excessive physical

| Are You At Risk Of Osteoporosis? | | | | | |
|--|-------|------------------|-----------------------------|--------------------|----|
| Directions: In each row, check the item that best describes you. | | | | | |
| Female | | | Male | | |
| White | Black | Hispanic | Am. Indian / Alaskan Native | Pacific Islander | |
| Menopause | | Past Menopause | | Still Menstruating | |
| Exercise: | | | | | |
| Rarely Active | | Fairly Active | | Very Active | |
| Daily servings of milk products each day: | | | | | |
| 0 | 1 | 2 | 3 | 4 | 4+ |
| Underweight | | Average Weight | | Overweight | |
| Does osteoporosis run in your family? | | | | | |
| Yes | | | No | | |
| Yes, I smoke | | | No, I do not smoke | | |
| Light drinker | | Moderate drinker | | Heavy Drinker | |

The more boxes checked in blue areas the more you are at risk for osteoporosis.

Bottom Line: Check with your doctor to see if you are at increased risk of developing osteoporosis.

Dairy 23

exercise, may also lose bone tissue and develop osteoporosis

- **Lifestyle.** Cigarette smoking, drinking too much alcohol, consuming an inadequate amount of calcium or getting little or no weight-bearing exercise, increases your risk of developing osteoporosis.
- **Medications/Chronic Diseases.** Medications to treat health conditions may have side effects that can damage bone and lead to osteoporosis.

Bottom Line: Check with your doctor to see if you are at increased risk of developing osteoporosis.

Are You At Risk Of Osteoporosis?

Directions: In each row, check the item that best describes you.

| | | | | | |
|-----------|-------|----------------|-----------------------------|--------------------|--|
| Female | | | Male | | |
| White | Black | Hispanic | Am. Indian / Alaskan Native | Pacific Islander | |
| Menopause | | Past Menopause | | Still Menstruating | |

Exercise:

| | | |
|---------------|---------------|-------------|
| Rarely Active | Fairly Active | Very Active |
|---------------|---------------|-------------|

Daily servings of milk products each day:

| | | | | | |
|-------------|---|---|----------------|---|------------|
| 0 | 1 | 2 | 3 | 4 | 4 + |
| Underweight | | | Average Weight | | Overweight |

Does osteoporosis run in your family?

| | | | |
|---------------|------------------|--------------------|---------------|
| Yes | | No | |
| Yes, I smoke | | No, I do not smoke | |
| Light drinker | Moderate drinker | | Heavy Drinker |

The more boxes checked in blue areas, the more you are at risk for osteoporosis.

Bottom Line: Check with your doctor to see if you are at increased risk of developing osteoporosis.

(teacher)

Sample question:

“How do you save money when buying dairy foods?”

- **Buy cheese or milk on sale and freeze for later use.**
 - Freeze hard cheese such as cheddar, Colby, Swiss or brick in small pieces of less than one pound, or grate and freeze in freezer-weight bags or rigid freezer containers. Freezing may cause discoloration of cheese. Thaw cheese in the refrigerator.
 - Freeze processed cheese food products in a loaf or in slices for up to four months.
 - Freeze and store milk one month. Allow room for expansion in the freezer container. Thaw in the refrigerator. Freezing affects flavor and appearance of milk, buttermilk, sour cream and yogurt but they are all right for baking.
- **Buy plain yogurt in the larger containers.**
 - Add fresh fruit, dry cereal or sweetener
 - Use in place of sour cream for cooking or toppings.

Save Money \$\$

- Buy cheese or milk on sale and freeze for later use.
- Buy plain yogurt in the larger containers.
- Look for store brands of yogurt, milk, cheese, and low-fat ice cream.
- Use reconstituted nonfat dry milk for cooking.



Dairy 25

- **Look for store brands of yogurt, milk, cheese, and low-fat ice cream.**
- **Use reconstituted nonfat dry milk for cooking.**

Save Money \$\$

- Buy cheese or milk on sale and freeze for later use.
- Buy plain yogurt in the larger containers.
- Look for store brands of yogurt, milk, cheese, and low-fat ice cream.
- Use reconstituted nonfat dry milk for cooking.



(teacher)

Share with participants:

“Purchase your dairy foods before the “sell by” date on the food container.”

- There is a “sell by” date stamped on most dairy foods. The “sell by” date is the last day that the store can sell the food product.
- When purchasing milk, sour cream, cottage cheese, and other dated dairy items, choose dairy foods with the latest “sell by” date so you can safely eat the food as long as possible.
- Milk generally stays fresh 2–3 days after the “sell by” date if it has been handled properly (refrigerated at 40 degrees Fahrenheit and not left out of refrigerator for extended periods of time during use).

Read the “Sell by” Dates on All Dairy Foods Before Purchasing

A dairy food is usually safe to eat 2 – 3 days after the “sell by” date when handled properly.



Dairy 27

Read the “Sell by” Dates on All Dairy Products Before Purchasing

A dairy food is usually safe to eat 2 – 3 days after the “sell by” date when handled properly.



(teacher)

Sample question: ***“What could you do to make sure you and your family get 3 servings of dairy foods each day?”***

Plan your meals for the entire day.

Daily Menu of Dairy Foods and Calcium Sources

| Breakfast | Morning Snack | Lunch | Afternoon Snack | Dinner | Evening Snack |
|-----------|---------------|-------|-----------------|--------|---------------|
| | | | | | |

- Remember, a serving of milk products and calcium-rich foods is 1 cup milk, 1 cup yogurt, 1 1/2 ounces natural cheese, 1 1/2 cups ice cream, 1 cup pudding, 1 cup custard, or 10 ounces tofu.
- Use milk or reconstituted nonfat dry milk when making homemade or canned soups such as tomato, clam chowder, and cream of mushroom soup.

| Breakfast | Morning Snack | Lunch | Afternoon Snack | Dinner | Evening Snack |
|-----------|---------------|-------|-----------------|--------|---------------|
| | | | | | |

Dairy 29

- Make hot cereals and instant hot chocolate/cocoa with milk instead of water.
- Add nonfat dry milk powder to meat loaf, milk drinks, cream soups, and pudding recipes.

Daily Menu of Dairy Products and Calcium Sources

| Breakfast | Morning Snack | Lunch | Afternoon Snack | Dinner | Evening Snack |
|-----------|---------------|-------|-----------------|--------|---------------|
| | | | | | |