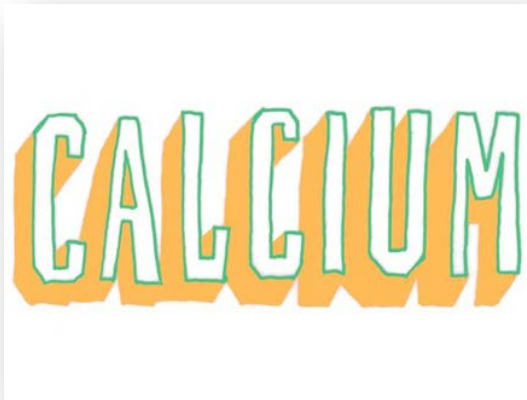


Strong Bones: Calcium and Vitamin D



+



PROJECT SPONSORS



- School District of Philadelphia
- Department of Nutrition Sciences, Drexel University
- Funded by USDA Supplemental Nutrition Assistance Program Education (SNAP-Ed) through PA Department of Human Services (DHS)

This material was funded by USDA's Supplemental Nutrition Assistance Program (SNAP) through the PA Department of Human Services (DHS). This institution is an equal opportunity provider.

WHY ARE CALCIUM AND VITAMIN D IMPORTANT?

Calcium + Vitamin D = Teammates

- ❖ Control Muscle Contractions
- ❖ Maintain and Build Strong Bones
- ❖ Prevent Fractures



BUILDING AND MAINTAINING BONES

- Bones are living organs
- Calcium deposited and withdrawn daily
- Bone mass begins to decline around 30 years of age
- Calcium in < Calcium Out =

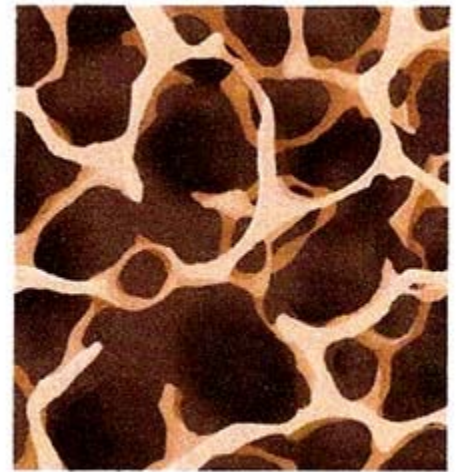


WHAT IS OSTEOPOROSIS?

- ❖ Weakening of Bone
- ❖ Brittle
- ❖ Does Not Discriminate
- ❖ Preventable!

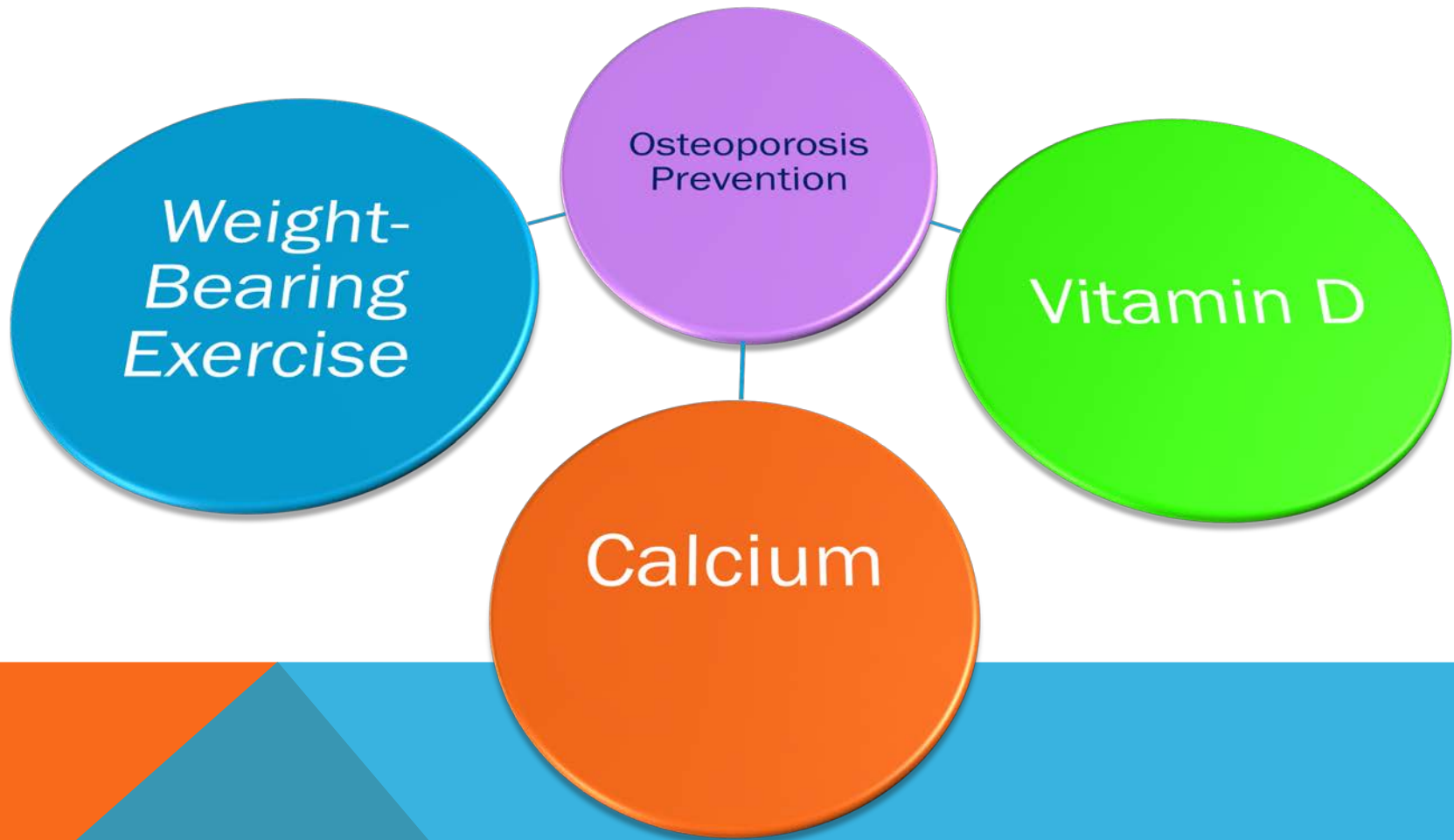


Healthy bone



Osteoporotic bone

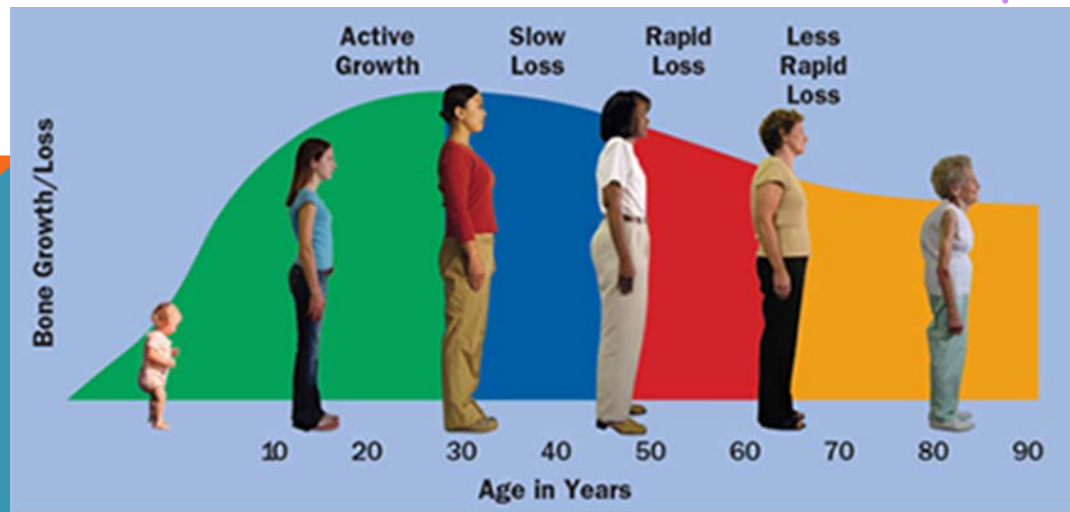
PREVENTION



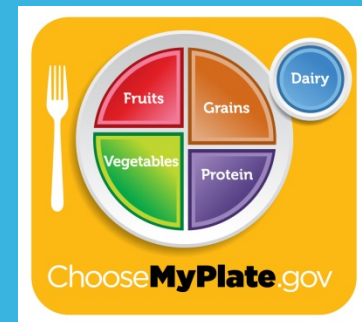
WHAT'S THE RECOMMENDATION FOR CALCIUM?

- ❖ Age Dependent
- ❖ 1300 mg (14-18 years old)

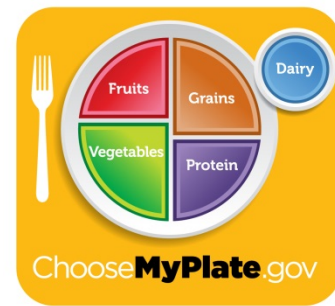
Why does this age group needs the most calcium?



CALCIUM SOURCES



CALCIUM SOURCES

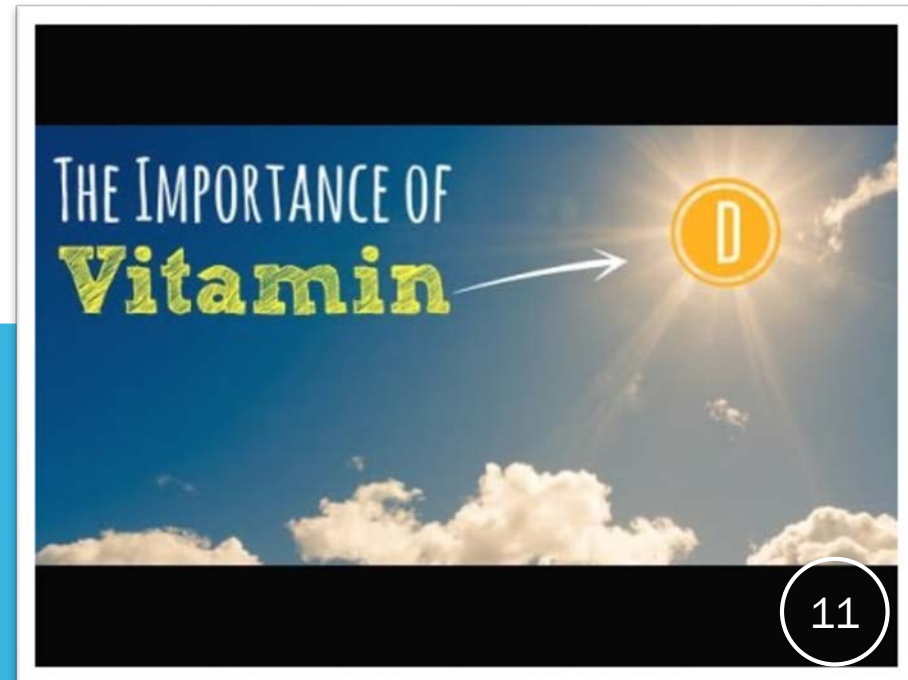


CALCIUM SOURCES

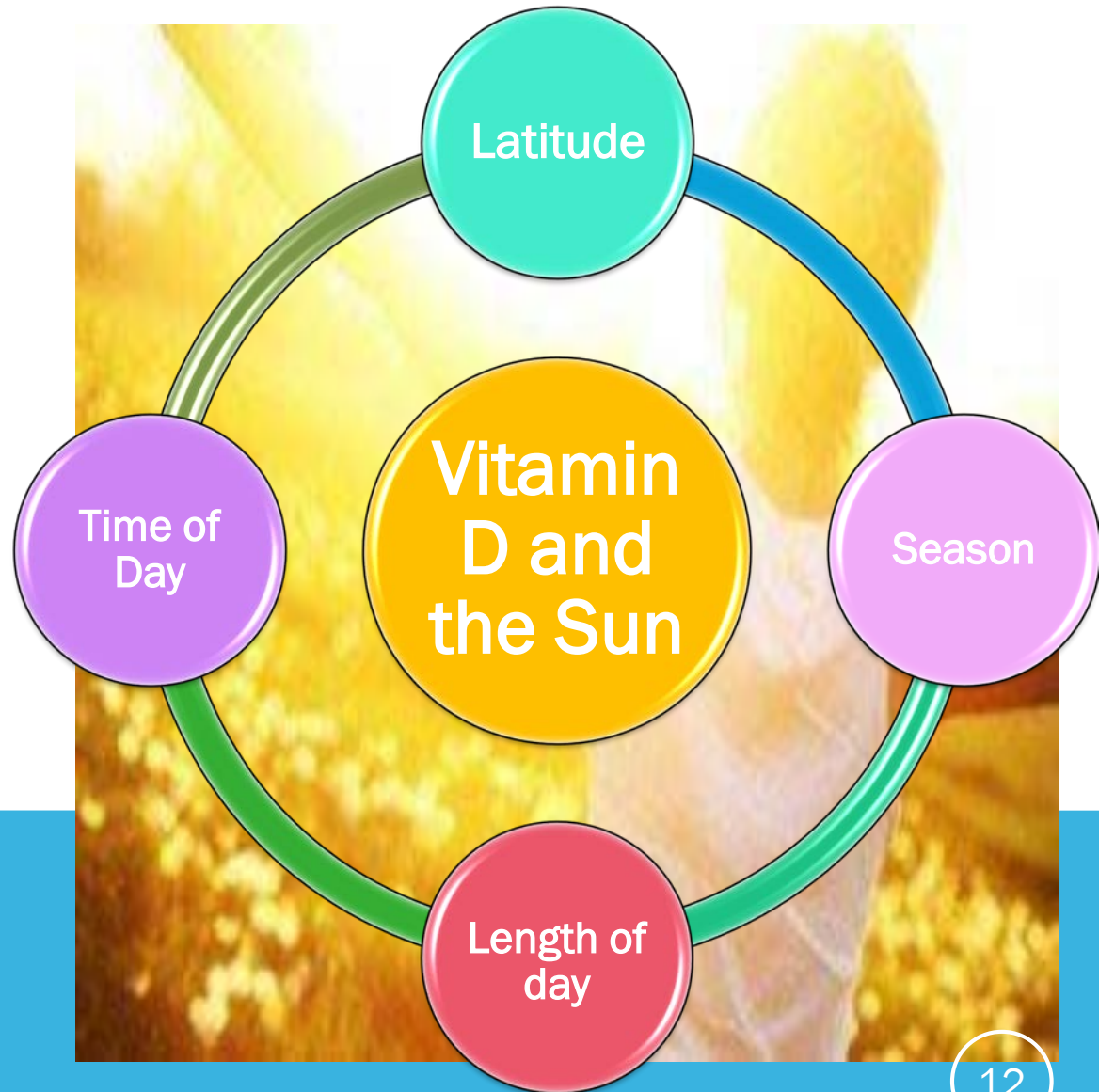


VITAMIN D- WHY & HOW MUCH?

- ❖ Needed to absorb Calcium
- ❖ Bone formation and mineralization
- ❖ 70 and under- 15 mcg/day
- ❖ Reduce Fractures



VITAMIN D SOURCES



FOOD & SUPPLEMENT LABELS

*% DV is based off a daily
calorie intake of 2,000
calories*

- Based off of a need for 1000 mg
- Recommendation 1300 mg /day
- Aim for 130% DV Calcium

Nutrition Facts	
Serving Size 1 cup (8 fl. oz. 240 mL)	
Servings Per Container 1	
Amount Per Serving	
Calories 110	Calories from Fat 20
% Daily Value*	
Total Fat 2.5g	4%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 120mg	5%
Total Carbohydrate 15g	3%
Dietary Fiber less than 1g	4%
Sugars 11g	
Protein 5g	
Vitamin A 10%	Vitamin C 0%
Calcium 40%	Iron 6%
Vitamin D 30%	
*Percent Daily Values are based on a 2,000 calorie diet.	

- Based off of 400 IU (International Units) (1 IU = 0.025 mcg)
- Recommendation 15mcg/day

COMING SOON... A NEW FOOD LABEL!

The new food label will list:

- mg of Calcium
- mcg of Vitamin D
- % Daily Value

NEW LABEL / WHAT'S DIFFERENT

Servings: larger, bolder type

Serving sizes updated

Calories: larger type

Updated daily values

New: added sugars

Change in nutrients required

Actual amounts declared

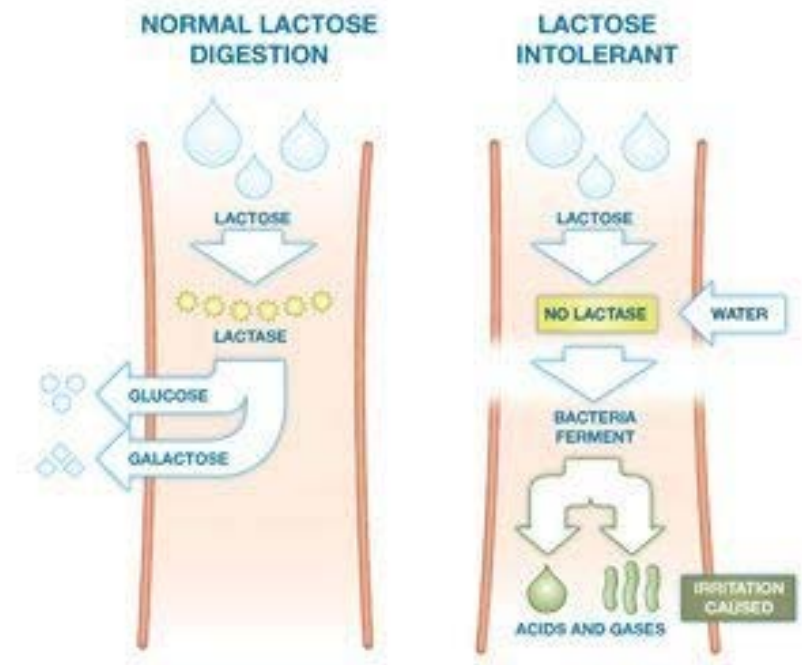
New footnote

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

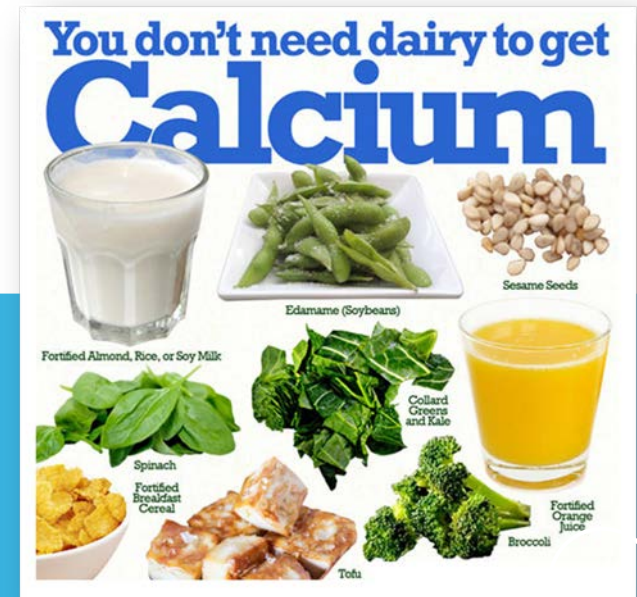
ARE YOU LACTOSE INTOLERANT?

- ❖ Body cannot break down lactose
- ❖ Individualized
- ❖ Not ALL dairy foods are created equal



TIPS THAT MAY HELP WHEN EATING DAIRY

- ❖ Start with smaller portions
- ❖ Eat dairy in combination with meals
- ❖ Try dairy foods other than milk
- ❖ Lactose-reduced milk or Fortified-Milk Alternatives



Don't Like Drinking a Glass of Milk?

Serve milk-based desserts (puddings, tapioca, frozen yogurt, custard, ice cream). Limit fat and sugar.



Try chocolate milk.



Make instant hot cocoa with milk



Top baked potatoes with plain yogurt; sprinkle with chives



Enjoy plain or flavored low fat yogurt or make a fruit & yogurt parfait



Use flavored yogurt as a fruit salad dressing; experiment with substituting plain yogurt for some or all of the sour cream in vegetable salad dressings

MILK ALTERNATIVES

Milk Variety	Calories	Total Fat (g)	Protein (g)	Calcium (mg)	Vitamin D (mcg)
Whole Milk	150	8	8	300	2.5
2% Milk	130	5	8	300	2.5
1% Milk	110	2.5	8	300	2.5
Non-Fat Milk (Skim)	90	0	8	300	2.5
Soy, Original	110	4.5	8	450	3
Almond (Unsweetened)	30	2.5	1	450	2.5
Cashew (Unsweetened)	25	2	<1	450	2.5
Rice, Original (Enriched)	120	2.5	1	300	2.5
Coconut (Unsweetened)	45	4.5	0	100	3
Hemp (Unsweetened)	70	5	3	300	3

EATING CALCIUM AT EVERY MEAL

Breakfast

Granola bar and 6oz. calcium
fortified 100% juice

Lunch

Turkey, lettuce, tomato and
cheese on whole wheat roll
Low-fat chocolate milk

Dinner

Grilled chicken, $\frac{1}{2}$ c spinach
salad and $\frac{3}{4}$ c macaroni and
cheese

Breakfast

Calcium- fortified
orange juice 300mg
Granola bar 150mg

Lunch

Cheese 300mg
Chocolate milk 300mg

Dinner

Spinach 123mg
Mac and cheese 300mg

Total Calcium: 1473mg

KEEP YOUR BONES STRONG

- ❖ Calcium and vitamin D are needed for strong bones, teeth, and muscle contractions.
- ❖ Eat a healthy diet with plenty of foods high in calcium and vitamin D.
- ❖ Engage in regular bone-strengthening exercise.



ACTIVITY-

ARE YOU GETTING ENOUGH CALCIUM?

- ❖ Complete the worksheet to see if you are getting enough calcium in your diet.
- ❖ If you're not getting enough, how could you increase your calcium intake to meet the recommended amount?

QUESTIONS





High School Lesson Plan

Calcium and Vitamin D

Strong Bones: Calci-YUM and Vitamin D

Grades 9-12

I. Lesson Objectives:

- A. Students will explain why they need calcium and vitamin D and list good food sources.
- B. Students will state how much calcium and vitamin D they need.
- C. Students will explain the health consequences of not getting enough calcium and vitamin D.

II. Behavior Outcomes:

- A. Make half your plate fruits and vegetables, at least half your grains whole grains, and switch to fat-free or low-fat milk and milk products.

III. Pennsylvania Educational Standards:

- A. 11.3 Food Science and Nutrition
- B. 1.6 Speaking and Listening
- C. 10.1 Concepts of Health
- D. 10.2 Healthful Living
- E. 10.4 Physical Activity

IV. Materials

- A. Laptop/Projector with PowerPoint presentation
- B. Handouts- *"No Bones About It...Calcium and Vitamin D Count"* worksheet
- C. Optional Handouts- *"What Is Lactose Intolerance"* handout from Learning Zone Express
- D. Additional Activities- *"Are You Getting Enough Calcium?"*, *"Calcium Trivia"* worksheet
- E. *Osteoporosis Disk set, Loss of Bone display, and Life/form® Nutrition & Bone Health 3-D Teaching kit* (All from eNasco), *Boost Your Bones with Calcium Rich Foods* Graphic Poster from Learning Zone Express or other appropriate visual
- F. Reinforcement that conveys the appropriate nutrition message
- G. Hand wipes
- H. Food tasting and any necessary supplies
- I. Ten Tips Sheet: *"Got Your Dairy Today?"*

V. Procedure: *Text in italics are instructions for the presenter, non-italicized text is the suggested script.*

A. Introductory

1. Lesson Introduction

- a. *Introduce yourself and the nutrition education program/organization presenting the lesson.*
- b. *Review previous lesson.*
- c. *Briefly introduce lesson topic.*

B. Developmental

1. Slide 1: Get Enough Calcium and Vitamin D- And Have Strong Bones!
 - a. There are many nutrients that play a part in building strong bones. Today we are going to focus two of them: Calcium and Vitamin D. We will also discuss some of the food sources of these nutrients as well as the consequences of not getting enough.
2. Slide 2: Project Sponsors
 - a. Drexel University's EAT.RIGHT.NOW. program is the official Pennsylvania Nutrition Education TRACKS Program of the School District of Philadelphia.
 - b. The program is funded by the USDA Supplemental Nutrition Assistance Program Education (SNAP-Ed) through the Pennsylvania Department of Human Services (DHS).
3. Slide 3: Why Are Calcium and Vitamin D Important?
 - a. *Distribute "No Bones About It...Calcium & Vitamin D Count" worksheet to students to fill in as you discuss the lesson topic.*
 - b. *Ask students why they think it is important to consume calcium in their diets. Discuss all reasonable answers.*
 - c. Think of calcium and vitamin D as teammates. They work together to get the job done. Vitamin D pulls the calcium that we eat from our digestive tract into the blood stream and takes it where it is needed.
 - d. In the muscles, calcium helps to control muscle contractions. *Tell students to think about all of the muscles that need to contract to pick up a pencil or something heavier. Let them know that their heart also needs calcium in order to produce strong contractions that pump blood throughout the body.*
 - e. In the bones, calcium maintains and builds strong bones throughout life.
 - f. Without enough calcium and vitamin D, it is more likely that bone will fracture if bone strength decreases.
4. Slide 4: Building and Maintaining Bones
 - a. *May use a visual, such as Life/form® Nutrition & Bone Health 3-D Teaching kit, when explaining.*
 - b. Our bones are living organs. Calcium is deposited and withdrawn from bone daily. If the body removes more calcium from the bones than it replaces, they become weaker and more likely to break.
 - c. Half of the adult skeleton is formed during adolescence. It is important during this time to get needed calcium and vitamin D so that the bones can store sufficient calcium for your older years.

- d. Around 30 years of age our bones aren't able to store as much calcium. By the time we reach our mid-30's, bone mass begins to slowly decline.
 - e. By consuming adequate calcium throughout your life, you help to prevent bone from becoming weak. If calcium intake is less than calcium being used by the body, bones may weaken, increasing the risk of fractures.
5. Slide 5: Osteoporosis
- a. *Ask students, "What is Osteoporosis?"*
 - b. *Discuss reasonable answers. May use a visual when explaining.*
 - c. Osteoporosis is a disease which weakens bone, causing it to become brittle or fragile. The brittle bones are due to a loss of calcium.
 - d. While osteoporosis happens often with older women, it can happen at any age to both men and women.
 - e. It is preventable!
6. Slide 6: Prevention
- a. You can prevent osteoporosis by:
 - i. Getting the recommended amount of calcium and vitamin D
 - ii. Getting regular exercise, including weight-bearing activity.
 - (a) Examples of weight-bearing activity include weight-lifting, running/jogging, and jumping rope.
7. Slide 7: What's the Recommendation for Calcium?
- a. The amount of calcium required depends on age. A 14-18 year old needs 1300 mg of calcium per day.
 - b. *Ask students: Why do you think this age group needs the most calcium? The reason for this higher amount is because of the growth spurt at this age.*
8. Slide 8: Calcium Sources-Dairy Group
- a. MyPlate recommends that individuals consume 3 cups of Dairy per day. Foods in the Dairy group, such as yogurt, cheese, and milk are typically high in calcium.
 - b. *Provide students with examples of a cup of dairy: 1 cup low-fat or fat-free milk (299 mg), 1 cup fortified soy beverage(299 mg), 1 cup low-fat or fat-free yogurt (415 mg), 1.5oz. natural cheese (307 mg), 2oz. processed cheese (324 mg), 2 cups low-fat cottage cheese (411 mg).*
 - c. Dairy foods or products themselves can contain saturated fat, so make sure you are choosing low-fat or fat-free versions like low-fat yogurt, 1% or fat-free (skim) milk, and low-fat cheese.
 - d. Choosing dairy foods that are not fat-free or low-fat or that contain added sugar (flavored milk, flavored yogurt) will contribute to your daily limit of calories from saturated fat and added sugars. Choose dairy foods wisely to stay within those limits. *Remind students that we should consume less than 10% of daily calories from saturated fat and less than 10% from added sugars.*

9. Slide 9: Calcium Sources-Grains & Protein Foods groups
 - a. Grain products naturally lack calcium. Many cereals are now fortified with calcium and vitamin D. Read the labels to identify the serving size and amount of calcium, as this will vary between food sources.
 - b. As for protein, sources such as chicken, beef, and pork lack calcium; however, certain fish like salmon or canned seafood commonly have bone or crushed bone incorporated. Doing so preserves the calcium content. Beans contain some calcium as well.
 - c. *Provide students with examples of protein portions that provide calcium: 1 cup baked beans (140 mg), 3oz. Canned Salmon with bones (180 mg), 3oz. canned Sardines with bones (320 mg), 1 cup cooked soybeans (260 mg), ½ cup firm tofu with calcium (200 mg).*
10. Slide 10: Calcium Sources-Fruits & Vegetable groups
 - a. Fruits naturally lack calcium, but calcium-fortified orange juice and other 100% fruit juices exist. Fortified 100% juices are an excellent option for those individuals who cannot consume dairy products or dislike milk. *Remind students that it's important to check the food labels as amounts may vary depending on the product.*
 - b. Dark green vegetables such as broccoli and spinach contain calcium.
 - c. *Provide students with examples of fruit and vegetables portions with calcium: 6oz. calcium-fortified 100% juice (200-300 mg), 1 cup raw broccoli (90 mg), ½ cup cooked collard greens (200 mg), ½ cup boiled turnip greens (100 mg), ½ cup cooked spinach (120 mg).*
11. Slide 11: Vitamin D-Why & How Much?
 - a. Vitamin D is needed to help the body absorb calcium in the digestive tract.
 - b. It works with calcium to promote bone formation and mineralization.
 - c. The recommendation for individuals aged 70 and under is 15 mcg per day of vitamin D.
 - d. Vitamin D is needed significantly later in life to reduce the risk of fractures.
12. Slide 12: Good Sources of Vitamin D
 - a. *Ask students, "What are some good sources of vitamin D?"*
 - b. The easiest way to get vitamin D is by drinking milk, which is fortified with vitamin D. Other ways to get vitamin D are from fortified cereals, fortified orange juice, fortified soy beverages, cold saltwater fish (salmon, halibut, herring, tuna, oysters, shrimp), and multi-vitamin and mineral (MVM) supplements.
 - c. Vitamin D can also be obtained from sunlight. Vitamin D is synthesized in the skin following direct exposure to sun. Ten to fifteen minutes of exposure 2-3 times per week may be sufficient.
 - i. Certain factors such as season, time of day, length of day, or even latitude can affect the body's ability to make vitamin D.

13. Slide 13: Food and Supplement Labels

- a. Food Labels display the amount of calcium and vitamin D in that particular food as a percent daily value (%DV). Aim for 100% DV of all vitamins and minerals listed per day.
- b. The %DV for calcium on the food label is based upon a need of 1000 mg. This recommendation is based upon the needs for a daily calorie intake of 2,000 calories. This is due to a majority of the population falling between the ages of 19-50. However, 14-18 year-old individuals need 1300mg per day. This means that teens must aim for 130% of their DV for calcium.
- c. The %DV for vitamin D on the food label is based upon 400 IU (International Units). This recommendation is also based off of a daily calorie intake of 2,000 calories. Individuals aged 1-70 are recommended to receive 15 mcg (micrograms), which is equal to 600 IU.

14. Slide 14: Coming Soon... A New Food Label

- a. The food label is changing. Companies have until July 2018 to change to the new design.
- b. The new design includes both Vitamin D and Calcium and lists the amounts provided in one serving as well as the % Daily Value for both nutrients.
- c. Remember to read food labels to learn more about the foods you eat.

15. Slide 15: Are you Lactose Intolerant?

- a. *Ask students:*
 - i. "What does it mean to be lactose-intolerant?"
 - ii. "Do you know anyone who is lactose intolerant?"
- b. Lactose-intolerant means that the body cannot break down the sugar that is present in milk (lactose).
- c. Non-dairy foods (soy milk, dark green vegetables, etc.) or fortified foods/products are helpful to those that are lactose-intolerant.
- d. The amount of dairy or lactose an individual can consume will depend on the severity of the intolerance.
- e. All dairy foods are not created equal when it comes to lactose content.

16. Slide 16: Tips That May Help When Eating Dairy

- a. Choosing smaller portions of dairy foods may help your body to better digest/handle the lactose found in the food.
- b. Eating dairy in combination with meals may help to ease any discomfort as your body is working to digest the other foods as well.
- c. Choose hard cheeses or yogurt instead of milk. These foods will sometimes already contain the enzyme "lactase" which is needed to digest lactose.
- d. Products such as lactose-reduced milks, soy beverages, or other fortified milk alternatives and cheeses can be a great source of calcium without the discomfort.

17. Slide 17: Don't Like Drinking a Glass of Milk

- a. When milk is not an option, there are foods to eat that will help an individual get both calcium and vitamin D into their daily diet.
- b. *Review the options listed on the slide.*

18. Slide 18: Milk Alternatives

- a. *Tell students that there are several alternatives for an individual who may not drink cow's milk.*
- b. *Mention that although the option of different alternatives is available, not all milks are created equal. Tell students that some milk alternatives may have "Enriched" on the label. This would indicate that vitamins and minerals have been added to the product to enhance nutritional value.*
- c. *Review the different alternatives and be sure to point out differences in calories, protein, calcium, and vitamin D. Tell students that the information on the table is for one 8 oz. serving.*
- d. *Remind students that reading the food label is the best way to be informed about what they are consuming.*

19. Slide 19: Eating Calcium at Every Meal

- a. This is an example of a way to eat adequate amounts of calcium with 3 or more servings of dairy per day.
- b. *Ask students: "How much calcium do you think is found in the example for a day's consumption?" (Answer: 1473 mg)*

20. Slide 20: Keep Your Bones Strong!

- a. *Review the importance of eating calcium-rich foods and physical activity.*
- b. To keep your bones strong:
 - i. Eat a healthy diet with plenty of foods high in calcium and vitamin D.
 - ii. Engage in regular bone-strengthening exercise.

21. Slide 21: Activity- "Are You Getting Enough Calcium?"

- a. *Distribute copies of handouts: "Are you Getting Enough Calcium?"*
- b. *Read the directions together then have the students complete the activity.*
- c. *Ask for a few volunteers to share their answers.*

22. Additional activities: *May be used if time allows or as a follow-up activity*

- a. Calcium Trivia
 - i. *Distribute Calcium Trivia Handout for students to fill out.*
 - ii. *Ask students different trivia questions and have them fill in the correct answers.*

C. Conclusion

- 1. *Review take-away messages from lesson.*

- a. We need calcium and vitamin D for strong bones and teeth, as well as for muscle contractions to occur.
 - b. Students your age need 1300 mg of calcium and 15 mcg of Vitamin D per day.
 - c. Students should include dairy, dark green leafy vegetables, and calcium and vitamin D fortified foods to prevent bone fractures and the risk of osteoporosis.
2. *Distribute hand wipes.*
 3. *Provide each student with a food tasting and encourage him or her to make small changes in his or her diet now. Explain why the food is a healthy option.*
 4. *Distribute the reinforcement, read the message and/or explain the reason why they are receiving the reinforcement.*
 5. *Distribute Ten Tips Fact Sheet (or other appropriate fact sheet) and encourage students to share it with their families.*
 6. *Thank the students for their participation and answer any question they may have.*



This material was funded by USDA's Supplemental Nutrition Assistance Program (SNAP) through the PA Department of Human Services (DHS). This institution is an equal opportunity provider.



No Bones About It...Calcium & Vitamin D Count-ANSWER KEY



Directions: Answer the following questions as the instructor presents the slides. The instructor will review the correct answers at the end of the presentation.

1. Humans need to eat foods rich in **calcium** so that muscle contractions occur and to maintain and build strong bones.

2. After the age of **thirty** your bones are not able to store as much calcium.



3. This is an example of **Unhealthy** bone.



4. This is an example of **Healthy** bone.

5. **Osteoporosis** is a disease which weakens bone, causing it to become brittle.

6. **True** or False Osteoporosis is preventable!

7. Weight bearing activities such as **running** can help to build your bones.

8. Individuals 14-18 years old need **1300 mg** of calcium per day.

9. MyPlate recommends that individuals consume **3** cups of dairy per day.

10. List food sources that contain calcium for each of the food groups. Which food group is missing?

Dairy	Grains	Fruits	Vegetables	Protein
Yogurt Milk Cheese	Fortified -Cereal	Fortified -Orange Juice	Dark Green Leafy Veggies	Salmon Canned Seafood

11. **Vitamin D** is needed for your body to absorb calcium. Individuals 70 years and under should consume the recommended 15mcg per day.

12. List different factors that may affect the body's ability to make vitamin D when the **sun** shines on the skin.

Season	Latitude
Time of Day	Length of Day



13. You should aim for **100%** DV of all vitamins and minerals.

14. **Lactose** is the name of natural sugar found in milk that some people have a hard time digesting.

15. Some foods that naturally lack certain vitamins and minerals may be **fortified** to increase nutrient content.



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No Bones About It...Calcium & Vitamin D Count



Directions: Answer the following questions as the instructor presents the slides. The instructor will review the correct answers at the end of the presentation.

1. Humans need to eat foods rich in _____ so that muscle contractions occur and to maintain and build strong bones.

2. After the age of _____ your bones are not able to store as much calcium.

3. This is an example of _____ bone.



4. This is an example of _____ bone.



5. _____ is a disease which weakens bone, causing it to become brittle.

6. True or False Osteoporosis is preventable!

7. Weight bearing activities such as _____ can help to build your bones.

8. Individuals 14-18 years old need _____ of calcium per day.

9. MyPlate recommends that individuals consume _____ cups of dairy per day.

10. List food sources that contain calcium for each of the food groups. Which food group is missing?

	Grains	Fruits	Vegetables	Protein

11. _____ is needed for your body to absorb calcium. Individuals 70 years and under should consume the recommended 15mcg per day.

12. List different factors that may affect the body's ability to make vitamin D when the _____ shines on the skin.



13. You should aim for _____ DV of all vitamins and minerals.

14. _____ is the name of natural sugar found in milk that some people have a hard time digesting.

15. Some foods that naturally lack certain vitamins and minerals may be _____ to increase nutrient content.



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Are You Getting Enough Calcium?



Directions: Using the table of calcium sources, write down all the foods containing calcium that you eat on a typical day. Then fill in the amount of calcium that each food provides and add them all up to get a total for the day. If you eat more than one serving of a food at one meal list it more than once (For example if you drink two 8 oz glasses of milk at dinner, list it twice since that is two servings). After filling in the chart, answer the questions below it.

Food	Calcium (mg)	Calcium (%DV)
Breakfast		
Lunch		
Dinner		
Snacks		
TOTAL:		

1. Teenagers need _____ mg or _____%DV of calcium daily
2. Are you getting enough calcium? _____
3. If necessary, go back to the chart and add foods that you could eat so that your total meets or exceeds the recommended amount of calcium.
4. Getting enough calcium can help prevent what disease? _____



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Sources of Calcium

Food	Calcium (mg)	% Daily Value
Milk, non-fat, 8 fl. oz.	300 mg	30%
Milk, low-fat (1%), 8 fl. oz.	305 mg	31%
Milk, reduced fat (2%), 8 fl. oz.	293 mg	30%
Milk, whole, 8 fl. oz.	277 mg	28%
Milk, chocolate flavored, low fat (1%), 8 fl. oz.	290 mg	29%
Almond milk, calcium fortified, 8 oz.	382 mg	38%
Soy milk, calcium fortified, 8 oz.	289 mg	29%
Yogurt, plain, low fat, 6 oz.	336 mg	34%
Greek yogurt, plain, fat free, 6 oz.	201 mg	20%
Yogurt, fruit, low fat, 6 oz.	258 mg	26%
Greek yogurt, fruit, fat free, 6 oz.	201 mg	20%
Cheese, Cheddar, 1 oz. (¼ c. shredded, 1 slice)	204 mg	20%
Cheese, Mozzarella, part skim, 1 oz. (1 stick)	207 mg	21%
American cheese, singles, 1½ oz. (2 slices)	226 mg	23%
Cottage cheese, low fat, 1 cup	206 mg	21%
Cream cheese, 1 oz.	28 mg	3%
Spinach, cooked, ½ cup	122 mg	12%
Collard greens, cooked, ½ cup	89 mg	9%
Kale, cooked, 1 cup	94 mg	10%
Broccoli, cooked, ½ cup	37 mg	4%
Sardines, canned in oil, 3 oz.	325 mg	33%
Salmon, canned, 3 oz.	187 mg	19%
Tofu, firm, ½ cup	253 mg	25%
Tofu, soft, ½ cup	138 mg	14%
Edamame, frozen, cooked, ½ cup	49 mg	5%
Baked beans, ½ cup	63 mg	6%
Black beans, canned, ½ cup	47 mg	5%
Almonds, roasted, 1 oz.	80 mg	8%
Toasted oat cereal, 1 cup	86 mg	9%
Instant oatmeal, 1 packet	98 mg	10%
Cream of wheat, quick, cooked, 1 cup	215 mg	22%
Waffle, 100% whole grain, 1 square (4-inch)	94 mg	9%
Tortilla, corn, 1 medium (6-inch)	20 mg	2%
Macaroni and cheese, made from dry mix, 1 cup	90 mg	9%
Pizza, cheese, regular crust, 1/8 of 12"	165 mg	16%
Pizza, cheese, regular crust, 1/8 of a 16"	293 mg	29%
Orange juice, calcium fortified, 8 fl. oz.	347 mg	35%
Orange juice, 8 fl. oz.	27 mg	3%
Orange, medium	52 mg	5%
Pudding, chocolate, snack pack, 1 container	58 mg	6%
Frozen yogurt, vanilla, low fat, ½ cup	156 mg	16%
Ice cream, vanilla, ½ cup	85 mg	9%



This material was funded by USDA's Supplemental Nutrition Assistance Program (SNAP) through the PA Department of Human Services (DHS). This institution is an equal opportunity provider.

Calcium and Vitamin D Trivia



1. This cheese is patriotic. _____
2. This is an important mineral found in dairy products and dark green leafy veggies.

3. What is the name of a natural sugar found in milk? _____
4. You need this much cottage cheese to get the same amount of calcium as in one cup of milk. _____
5. What kind of milk is made from a bean? _____
6. This kind of milk has fat, but the 'lowest' amount of fat. _____
7. This "sunshine" vitamin is important for building strong bones and teeth. _____
8. What do you call cheese that is sad? _____
9. What do you call a piece of cheese that likes to shoot hoops? _____
10. Which cheese is made backwards? _____
11. I am a frozen healthy alternative to ice cream. _____
12. This can be a meal or side dish and it's made with pasta. _____
13. This disease can occur in both men and women at any age due to a lack of calcium and vitamin D. _____
14. What do you call a condition where someone can't stand milk sugar?

15. Growing children and teens need this number of cups from the dairy group each day. _____



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Calcium and Vitamin D Trivia- ANSWERS



1. This cheese is patriotic. **American**
2. This is an important mineral found in dairy products and dark green leafy veggies.
Calcium
3. What is the name of a natural sugar found in milk? **Lactose**
4. You need this much cottage cheese to get the same amount of calcium as in one cup of milk. **2 cups**
5. What kind of milk is made from a bean? **Soy milk**
6. This kind of milk has fat, but the 'lowest' amount of fat. **1% milk**
7. This "sunshine" vitamin is important for building strong bones and teeth. **Vitamin D**
8. What do you call cheese that is sad? **Blue Cheese**
9. What do you call a piece of cheese that likes to shoot hoops? **Swiss Cheese**
10. Which cheese is made backwards? **Edam**
11. I am a frozen healthy alternative to ice cream. **Frozen Yogurt**
12. This can be a meal or side dish and it's made with pasta. **Macaroni & Cheese**
13. This disease can occur in both men and women at any age due to a lack of calcium and vitamin D. **Osteoporosis**
14. What do you call a condition where someone can't stand milk sugar?
Lactose Intolerance
15. Growing children and teens need this number of cups from the dairy group each day. **3 cups**



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