

HEALTHY HABITS, TOO



Lesson 7:
Building Healthy
BONES AND TEETH



**TRIPLE
PLAY**
a game plan for the mind, body and soul



FACILITATING THE LESSON

PROGRAM OVERVIEW

This program contains the background information, step-by-step plans and handouts you need to teach sessions and conduct activities on 10 topics. Sessions are designed for four age groups: 6-to-9-year-olds, 10-to-12-year-olds, 13-to-15-year-olds and 16-to-18-year-olds.

Generally, each lesson and activity takes about 30 minutes for 6-to-9-year-olds and about 45 minutes for older youth. You can shorten or lengthen the time frame according to the needs and interests of your group.

LESSON FORMAT

Each lesson includes tools to make it easier for you to teach youth about the topic.

- **Objectives.** Each session is designed to meet specific objectives for each age group.
- **Materials.** Materials needed to conduct the activity are listed at the start of each session.
- **Resources and Handouts.** A listing of resources and handouts details the materials you need to prepare for and facilitate the lesson (all necessary resources and handouts follow immediately after the lesson directions).
- **Advance Preparation.** Steps for preparation are detailed at the start of each lesson.
- **Key Teaching Points.** To guide you in teaching youth about the topic, each lesson summarizes key points, the important lessons youth will take away from the session. Adapt the level of detail you provide to the age and learning level of the group.
- **Leading the Activity.** Step-by-step guidelines are included for leading the activity.
 - *Warm-up Exercise* — To promote physical activity during each session, lead the kids in at least one warm-up exercise and review the benefits of physical activity. Choose an idea from the Get-Moving Exercises list (on “Get-Moving Exercises” on [page 16](#) of this Implementation Manual), come up with your own idea or ask kids to think of creative ways to get moving.
 - *Introduction* — Each lesson provides step-by-step instructions to help you prepare for and conduct the lesson. It is a good idea to read the lesson carefully a few days in advance, so you will have time to prepare.
 - *Group Learning Activity* — The group learning activity is the core of each session, the time when youth practice, develop or demonstrate what they have learned. The activities are age-appropriate and designed to be fun while reinforcing key concepts.
 - *Individual Application* — Brief application activities follow the group activity, giving youth a chance to apply learning in their own lives. They also promote small steps toward adopting healthy habits.
 - *Snack Time* — During snack time, youth share new learning and insights.
 - *Take-home Challenges* — At the end of each session, you will find suggested challenges for participants to do at home before the next meeting. These challenges reinforce what members have learned about healthy eating and physical activity.

- **Additional Resources.** Additional websites are listed at the end of each lesson for finding more information on the lesson's topic.

LEADING THE ACTIVITIES

Before an Activity. You will have more success if you do the following before each lesson:

- **Review the Activity.** Review the activities and become familiar with the issues yourself, including key terms used.
- **Prepare Youth.** Before beginning the activities with youth, you may want to spend a few minutes telling them what they will be doing and why, asking questions to see how much they already know and introducing key terms in language they understand.
- **Gather Materials.** Be sure all materials are available before beginning each activity.

During an Activity. While conducting the activities/lessons, be sure to:

- **Establish Ground Rules.** Make it clear which behaviors will be acceptable and which behaviors will not be acceptable by setting ground rules and reinforcing them as necessary.
- **Be Patient.** Keep in mind that some activities will be difficult for some youth and easy for others. Encourage, challenge and support youth, but do not push them.
- **Take Advantage of Learning Opportunities.** Be ready for the “teachable moment” and use it to further understanding of the concepts.

After an Activity. At the end of each activity or session, it is a good idea to do the following:

- **Provide Closure.** Give youth a chance to reflect on what they have learned after each activity and discussion.
- **Evaluate the Activity.** Consider whether the objective of the activity was accomplished, and try to understand why it was or was not.

RESPONDING TO DIFFERENT AGE GROUPS

Activities in this Resource Guide are geared specifically to youth in the targeted age group. You may, however, want to divide the group of 6- to 9-year-olds, for example, into two smaller age groups. Because there is such a difference in interest, reading level and maturity between a 6-year-old and a 9-year-old, having two groups may be more effective. With the youngest children (6-year-olds), you will have to assist with reading, simplify the language you use and eliminate terms they may not understand.

Youth in the 10- to 12-year-old group present a challenge, especially when it comes to working in groups. This is a time when youth in this age group are developing identity, so peer influences are particularly strong. They may be reluctant to share personal experiences, attitudes or feelings. Give them time to get comfortable and encourage them to speak, but do not force them if they are reluctant.

Youth in the 13-to-15 and 16-to-18-year-old group respond well to performance-based activities such as drama, dance, video, music and anything that involves use of computers.

LESSON FOR YOUTH AGES 6 TO 9 YEARS

LESSON OVERVIEW

Children play a board game in which they advance while learning to recognize different types of milk and other foods that are good sources of calcium.

ESTIMATED TIME: 30 minutes

OBJECTIVES

1. Recognize a variety of milk products.
2. Identify nutritious, calcium-rich foods that promote strong bones and teeth.
3. Understand the importance of brushing and flossing for healthy teeth.
4. Explore ways to eat more calcium-rich foods.

MATERIALS

- Heavy card stock
- Scissors
- Cardboard
- Glue stick
- Pens or pencils
- Small items to use as game board markers (paper clips, coins, stones, checkers, etc.)

RESOURCES AND HANDOUTS

- MyPlate Graphic ([page 289](#))
- Calcium Check Game Board ([page 290](#))
- Calcium Check Game Cards ([page 291](#))

ADVANCE PREPARATION

1. Visit the [Milk Matters](#) website to learn about the importance of calcium for a healthy diet – and for healthy bones and teeth.
2. Copy **Calcium Check Game Board** onto heavy card stock and glue onto cardboard (one for each team).
3. Copy **Calcium Check Game Cards** onto heavy card stock, cut apart (two sets per team).
4. Select a snack to serve during the session wrap-up.

KEY TEACHING POINTS

- One way to build strong bones is through physical activity.
- We also build strong bones — and teeth — by eating foods with calcium.
- Milk and other foods in the dairy group have calcium.
- It is best to choose low-fat and non-fat milk products.
- It is important to brush and floss every day to keep teeth healthy.

LEADING THE ACTIVITY

I. GET-MOVING EXERCISES

Select a Get-Moving Exercise from the list (on [page 16](#) in the Implementation Manual) and keep group members moving for 10 minutes. Tell the group that kids need to do some physical activity for 60 minutes every day and that this exercise is one example of what they can do.

II. INTRODUCTION

1. Begin by asking, “What do you know about strong teeth and bones? What do you want to know about strong teeth and bones?”
2. Ask youth why they think strong bones are important for a healthy body.
3. Point out that our bones allow us to do the things we want to do — to stand up straight, run, jump and play. We want our bones to be as strong as possible.
4. Explain that one way to build strong bones is through physical activity — like walking, running, dancing, climbing stairs and playing team sports like basketball or soccer.
5. Point out that another way to build strong bones is by eating foods with calcium.
6. Refer to the **MyPlate Graphic**. Tell youth that dairy products are really good sources of calcium and other nutrients needed for healthy bones.
7. Say that kids their age need to have two and a half servings of foods from the dairy group each day. Remind them that it is good to choose low-fat or fat-free milk, yogurt and cheese more often, and to choose foods like whole milk and ice cream less often.
8. Say that the calcium in milk products also helps make teeth and gums healthy. Remind the group that the best way to keep teeth healthy is to brush and floss every day, and to see the dentist for regular check-ups.

SPOTLIGHT ON DENTAL HYGIENE

Help youth understand that the best way to keep their teeth healthy is to:

- **Brush twice a day with fluoride toothpaste.** Fluoride is a mineral that protects teeth from cavities, formed when bacteria in the mouth and carbohydrates in foods combine to make an acid that can damage the outer shell of teeth called “enamel.”
- **Floss every day.** Next to brushing, flossing is the most important step for keeping teeth healthy. It reduces bacteria in the mouth that can cause cavities.
- **Brush after eating or drinking sweet food or drinks.** Eating foods with sugars or carbohydrates can promote cavities.
- **Eat lots of foods with calcium.** Eating and drinking milk products — such as milk, yogurt and cheese or other calcium-rich foods — helps strengthen the teeth.
- **Eat lots of crunchy foods** — apples, carrots and celery — which are natural teeth cleaners.
- **Rinse the mouth out with water.** If away from home and unable to brush, rinsing removes at least some of the food from teeth.
- **Visit the dentist regularly.** Brushing and flossing keeps teeth clean, but dentists can provide a more thorough cleansing, and they can spot any problems with teeth.

WHOSE SMILE IS THIS?

Take a close-up photo of each group member’s smile. Have each youth cut out their mouth from the photo and glue it on an index card. Ask each to write a sentence under the smile that describes something they do to keep their teeth healthy. Place the photos on a bulletin board and invite members to guess whose smiles they see.

III. GROUP LEARNING ACTIVITY — CALCIUM CHECK BOARD GAME

Note: If space allows, instead of doing this activity as a board game, it can be adapted to be a floor-size game. Using 11” x 8.5” pieces of paper, markers and masking tape, recreate the **Calcium Check Game Board** and allow children to move physically around the board.

1. Divide the large groups into several smaller teams.
2. Tell them they are going to play a fun board game that will help them recognize different types of milk and other foods that are good sources of calcium.
3. Give each team a **Calcium Check Game Board** and a set of **Game Cards**. Allow team members to choose which markers they want to use for the game.
4. Explain the rules:
 - The first player chooses a game card from the deck, reads the card aloud and fills in the missing word. (If youth have trouble reading, you can read for them.)
 - If the player fills in the correct word, she can move one space on the board.

- The next player does the same thing, and players keep moving around the board.
 - The first one to reach the end is the winner.
5. End by asking, “What did you learn about strong teeth and bones?”

GIRLS AND CALCIUM

Calcium intake is critical for bone development because most bone strength and density is built during the tween and teen years. It is especially important for girls because they have lighter, thinner bones than boys do, and they are at greater risk for osteoporosis later in life. Fewer than 10 percent of girls aged 9 to 13 get adequate calcium.¹

IV. INDIVIDUAL APPLICATION

1. Ask youth to jot down the foods they eat that contain calcium.
2. Ask them to write down the names of new calcium-rich foods they might want to try.

V. SNACK TIME

1. Instruct group members to wash their hands.
2. Serve the snack you have selected for today.
3. While youth are snacking, ask them to share what they remember most from today’s activity.

VI. TAKE-HOME CHALLENGES

Challenge group members to do one of these activities before you meet again:

1. Eat or drink one new food this week that has a lot of calcium but also is low-fat (a low-fat yogurt drink, low-fat chocolate milk or low-fat cheese).
2. Try one new activity that keeps them on their feet and moving for 10 minutes.

PHYSICAL ACTIVITY GUIDELINES FOR CHILDREN, ADOLESCENTS AND TEENS

According to the Physical Activity Guidelines for Americans, children, adolescents and teens should do 60 minutes or more of physical activity each day. Three types of physical activity are important:

AEROBIC ACTIVITY

Aerobic activity should make up most of a young person's 60 or more minutes of physical activity each day. This can include either moderate-intensity aerobic activity, such as brisk walking or vigorous-intensity activity, such as running. It is important to include vigorous-intensity aerobic activity at least three days per week.

MUSCLE STRENGTHENING

Include muscle strengthening activities, such as gymnastics or push-ups, at least three days per week as part of each young person's 60 or more minutes.

BONE STRENGTHENING

Include bone strengthening activities, such as jumping rope or running, at least three days per week as part of each young person's 60 or more minutes.²

ADDITIONAL RESOURCES

- See [Got Your Dairy Today?](#) on the ChooseMyPlate.gov website to learn more about the role of dairy in a healthy diet.
- Visit the KidsHealth® website to see a full [diagram of a cross-section of a bone](#) and zoom in on various elements.
- The U.S. Department of Health and Human Services has a website designed especially for girls, [Best Bones Forever!](#)
- Visit [Your Kid's Teeth](#) on the KidsHealth® website for helpful articles on dental health.
- For information on [physical activity guidelines](#), see the Centers for Disease Control and Prevention website.

CLEANLINESS AND FOOD ALLERGIES

Instruct group members to wash their hands with hot, soapy water for about 20 seconds to remove germs before snack time or handling food.

Before distributing food, ask whether anyone is allergic to ingredients in today's snack. The major food allergens are milk, eggs, fish, shellfish, nuts, wheat, peanuts and soybeans.

LESSON FOR YOUTH AGES 10 TO 12 YEARS

LESSON OVERVIEW

Youth work in small teams using a code book to decode messages that relate to the importance of calcium for the healthy development of bones and teeth.

ESTIMATED TIME: 30 minutes

OBJECTIVES

1. Recognize foods in the dairy group and their nutritional benefits.
2. Understand the importance of calcium, vitamin D, phosphorus and fluoride for the healthy development of bones and teeth.
3. Identify the health and nutrition benefits of eating calcium-rich foods.
4. Understand the importance of brushing and flossing for healthy teeth.
5. Explore ways to eat more calcium-rich foods.

MATERIALS

- Pens or pencils
- Scissors
- Envelopes (four #10 envelopes)

RESOURCES AND HANDOUTS

- MyPlate Graphic (page 289)
- Crack the Calcium Code (page 293)
- Calcium Code Book (page 294)

ADVANCE PREPARATION

1. Visit the [Milk Matters](#) website to learn about the importance of calcium for a healthy diet — and for healthy bones and teeth.
2. Copy **Crack the Calcium Code** (one per team).
3. Copy **Calcium Code Book**, cut into four columns (Code Book #1, #2, #3 and #4). Place each in a separate envelope with the appropriate number on the front.
4. Select a snack to serve during the session wrap-up.

KEY TEACHING POINTS

- Foods in the dairy group provide calcium and other important nutrients that help build strong bones and teeth.
- Other foods, like fish and eggs, also provide calcium.
- Bones develop most in the tween and teen years, so it is very important for kids to eat foods with lots of calcium.
- It is best to choose low-fat and non-fat milk products.
- It is important to brush and floss every day to keep teeth healthy.

LEADING THE ACTIVITY

I. GET-MOVING EXERCISES

Select a Get-Moving Exercise from the list (on page 16 in the Implementation Manual) and keep group members moving for 10 minutes. Tell the group that kids need to do some physical activity for 60 minutes every day and that this exercise is one example of what they can do.

II. INTRODUCTION

1. Begin by asking, “What do you know about strong teeth and bones? What do you want to know about strong teeth and bones?”
2. Ask youth why they think strong bones are important for a healthy body.
3. Point out that our bones allow us to do the things we want to do — to stand up straight, run, jump and play. We want our bones to be as strong as possible.
4. Let youth know that, between the ages of 10 and 18, we make our bones strong for a lifetime. Bones grow the most at this time and, if we do not do all we can to keep our bones healthy now, we cannot make up for it later.
5. Explain that one way to build strong bones is through physical activity like walking, running, dancing, climbing stairs, and playing team sports like basketball or soccer. State that just like exercising our muscles makes them grow stronger, exercising our bones makes them work harder, which helps them build bone mass.
6. Point out that another way to build strong bones is through nutrients like calcium.
7. Refer to the **MyPlate Graphic**. Tell youth that dairy products are really good sources of calcium and other nutrients needed for healthy bones.
8. Say that kids their age need to have three servings of foods from the dairy group each day. Remind them that it is good to choose low-fat or fat-free milk, yogurt and cheese more often, and to choose foods like whole milk and ice cream less often.
9. Explain that most of the calcium in our bodies is in our bones. Our bodies replace small amounts of calcium from our bones all the time — if more is removed than is replaced, our bones will become weaker and more likely to break. This is why it is so important to get enough calcium from what we eat and drink.
10. Point out that most kids and teens, especially after age 9, do not get enough calcium.
11. Explain that other nutrients also help make strong bones.

- *Phosphorus* fills in the bones and can be found in foods like milk, cheese, meat, poultry, fish and eggs.
 - *Potassium* protects the bones from acids in the body that might harm them. Milk and yogurt are good sources of potassium.
 - *Vitamin D* helps our bodies absorb the calcium and phosphorus we eat and deposit them in our bones and teeth. This vitamin can be found in vitamin D-fortified milk, egg yolks or fish like salmon or sardines.
12. Explain that, even though these nutrients are so important, some people do not feel well when they drink milk. They are not able to digest the natural sugar — called “lactose” — found in milk products.
 13. Point out that there also are non-dairy foods that provide needed calcium:
 - calcium-fortified juices, soy milk and cereal;
 - canned fish with bones like sardines and salmon; or
 - some green veggies like collard greens, turnip greens, kale and bok choy.
 14. Say that the calcium in milk products also helps make teeth and gums healthy. Remind the group that the best way to keep teeth healthy is to brush and floss every day and to see the dentist for regular check-ups.

SPOTLIGHT ON DENTAL HYGIENE

Help youth understand that the best way to keep their teeth healthy is to:

- **Brush twice a day with fluoride toothpaste.** Fluoride is a mineral that protects teeth from cavities, formed when bacteria in the mouth and carbohydrates in foods combine to make an acid that can damage the outer shell of teeth called “enamel.”
- **Floss every day.** Next to brushing, flossing is the most important step for keeping teeth healthy. It reduces bacteria in the mouth that can cause cavities.
- **Brush after eating or drinking sweet food or drinks.** Eating foods with sugars or carbohydrates can promote cavities.
- **Eat lots of foods with calcium.** Eating and drinking milk products — such as milk, yogurt and cheese or other calcium-rich foods — helps strengthen the teeth.
- **Eat lots of crunchy foods** — apples, carrots and celery — which are natural teeth cleaners.
- **Rinse the mouth out with water.** If away from home and unable to brush, rinsing removes at least some of the food from teeth.
- **Visit the dentist regularly.** Brushing and flossing keeps teeth clean, but dentists can provide a more thorough cleansing, and they can spot any problems with teeth.

WHOSE SMILE IS THIS?

Take a close-up photo of each group member’s smile. Have each youth cut out their mouth from the photo and glue it on an index card. Ask each to write a sentence under the smile that describes something they do to keep their teeth healthy. Place the photos on a bulletin board and invite members to guess whose smiles they see.

III. GROUP LEARNING ACTIVITY — CRACK THE CALCIUM CODE

1. Divide the large group into four small teams.
2. Distribute a copy of **Crack the Calcium Code** to each team.
3. Tell them that will play a team activity to race each other to “crack the code.”
4. Explain that the messages on the sheet are coded, and each team’s task is to decode the messages before the other teams do.
5. Give each team one of the four envelopes containing the **Calcium Code Books**. Say that youth will use the code in the envelope to “decode” the messages. Explain that each team has only one portion of the code. When they are finished transcribing the symbols for the letters they have, they must trade with another team to get more letters — until all teams have used all four **Calcium Code Books**.
6. If a team is able to decode the statements by making a guess about the missing letters before they have seen all four **Calcium Code Books**, they can do so.
7. When all youth have “decoded” the messages, ask for volunteers to take turns reading the statements aloud to the large group.
8. End by asking, “What did you learn about strong teeth and bones?”

GIRLS AND CALCIUM

Calcium intake is critical for bone development because most bone strength and density is built during the tween and teen years. It is especially important for girls because they have lighter, thinner bones than boys do, and they are at greater risk for osteoporosis later in life. Fewer than 10 percent of girls aged 9 to 13 get adequate calcium.³

IV. INDIVIDUAL APPLICATION

1. Ask youth to jot down the foods they eat that contain calcium.
2. Ask them to write down the names of new calcium-rich foods they might want to try.

V. SNACK TIME

1. Instruct group members to wash their hands.
2. Serve the snack you have selected for today.
3. While youth are snacking, ask them to share what they remember most from today’s activity.

VI. TAKE-HOME CHALLENGES

Challenge group members to do one of these activities before you meet again:

1. Eat or drink one new food this week that has a lot of calcium but also is low-fat (a low-fat yogurt drink, low-fat chocolate milk or low-fat cheese).
2. Try one new activity that keeps them on their feet and moving for 10 minutes.

PHYSICAL ACTIVITY GUIDELINES FOR CHILDREN, ADOLESCENTS AND TEENS

According to the *Physical Activity Guidelines for Americans*, children, adolescents and teens should do 60 minutes or more of physical activity each day. Three types of physical activity are important:

AEROBIC ACTIVITY

Aerobic activity should make up most of a young person's 60 or more minutes of physical activity each day. This can include either moderate-intensity aerobic activity, such as brisk walking or vigorous-intensity activity, such as running. It is important to include vigorous-intensity aerobic activity at least three days per week.

MUSCLE STRENGTHENING

Include muscle strengthening activities, such as gymnastics or push-ups, at least three days per week as part of each young person's 60 or more minutes.

BONE STRENGTHENING

Include bone strengthening activities, such as jumping rope or running, at least three days per week as part of each young person's 60 or more minutes.⁴

ADDITIONAL RESOURCES

- See [Got Your Dairy Today?](#) on the ChooseMyPlate.gov website to learn more about the role of dairy in a healthy diet.
- Visit the KidsHealth® website to see a full [diagram of a cross-section of a bone](#) and zoom in on various elements.
- The U.S. Department of Health and Human Services has a website designed especially for girls, [Best Bones Forever!](#)
- Visit [Your Kid's Teeth](#) on the KidsHealth® website for helpful articles on dental health.
- For information on [physical activity guidelines](#), see the Centers for Disease Control and Prevention website.

CLEANLINESS AND FOOD ALLERGIES

Instruct group members to wash their hands with hot, soapy water for about 20 seconds to remove germs before snack time or handling food.

Before distributing food, ask whether anyone is allergic to ingredients in today's snack. The major food allergens are milk, eggs, fish, shellfish, nuts, wheat, peanuts and soybeans.

LESSON FOR YOUTH AGES 13 TO 15 YEARS

LESSON OVERVIEW

Youth participate in a tic-tac-toe relay; competing team members race each other to answer questions about healthy bones and teeth, and the first to respond correctly gets to fill in an “x” or an “o” on the tic-tac-toe board.

ESTIMATED TIME: 45 minutes

OBJECTIVES

1. Identify the health and nutrition benefits of eating calcium-rich foods.
2. Understand the importance of calcium, vitamin D, phosphorus and fluoride for the healthy development of bones and teeth.
3. Read food labels to identify calcium.
4. List good sources of calcium.
5. Understand the importance of brushing and flossing for healthy teeth.
6. Explore ways to eat more calcium-rich foods.

MATERIALS

- Flip chart and markers
- Masking tape
- Pens or pencils

RESOURCES AND HANDOUTS

- What’s On the Label? (page 295)
- Calcium Tic-Tac-Toe Relay Questions and Answer Key (page 296)

ADVANCE PREPARATION

1. Visit the [Milk Matters](#) website to learn about the importance of calcium for a healthy diet – and for healthy bones and teeth.
2. Review the [Nutrition Facts Label](#) on the U.S. FDA website so you can explain the **What’s On the Label?** handout to youth.
3. Prepare a large tic-tac-toe board to mount on the wall. Make sure it has at least 16 squares (three vertical and three horizontal lines).
4. Clear enough space for a two-team relay and tape the tic-tac-toe board on the wall.
5. Copy **What’s On the Label?**, one for each youth.
6. Select a snack to serve during the session wrap-up.

KEY TEACHING POINTS

- Foods in the dairy group provide calcium and other important nutrients that help build strong bones and teeth.
- Other foods, like fish and eggs, also provide calcium.
- Bones develop most in the tween and teen years, so it is very important for youth to eat foods with lots of calcium.
- It is best to choose low-fat and non-fat milk products.
- It is important to brush and floss every day to keep teeth healthy.

LEADING THE ACTIVITY

I. GET-MOVING EXERCISES

Select a Get-Moving Exercise from the list (on [page 16](#) in the Implementation Manual) and keep group members moving for 10 minutes. Tell the group that kids need to do some physical activity for 60 minutes every day and that this exercise is one example of what they can do.

II. INTRODUCTION

1. Begin by asking, “What do you know about strong teeth and bones? What do you want to know about strong teeth and bones?”
2. Ask youth why they think strong bones are important for a healthy body.
3. Point out that our bones allow us to do the things we want to do — stand up straight, run, jump and play. We want our bones to be as strong as possible.
4. Let youth know that, between the ages of 10 and 18, we make our bones strong for a lifetime. Bones grow the most at this time and, if we do not do all we can to keep our bones healthy now, we cannot make up for it later.
5. Point out that one way to build strong bones is through weight-bearing physical activity. These are the kinds of activities that keep us active and on our feet so our legs are able to carry our body weight.
6. Give some examples of weight-bearing activities: walking, running, dancing, climbing stairs and playing team sports like basketball, soccer or volleyball. State that, just like exercising our muscles makes them grow stronger, exercising our bones makes them work harder, which helps them build bone mass.
7. Point out that another way to build strong bones is through nutrients like calcium. Remind youth that milk/milk products are excellent sources of calcium and other nutrients needed for healthy bones.
8. Explain that most of the calcium in our bodies is in our bones. Our bodies replace small amounts of calcium from our bones all the time — if more is removed than is replaced, our bones will become weaker and more likely to break. This is why it is so important to get enough calcium from what we eat and drink.
9. Point out that most kids and teens, especially after age 9, do not get enough calcium.
10. Explain that other nutrients also help make strong bones.
 - *Phosphorus* fills in the bones and can be found in foods like milk, cheese, meat, poultry, fish and eggs.
 - *Potassium* protects the bones from acids in the body that might harm them. Milk and yogurt are good sources of potassium.

- *Vitamin D* helps our bodies absorb the calcium and phosphorus we eat and deposit them in our bones and teeth. This vitamin can be found in vitamin D-fortified milk, egg yolks or fish like salmon or sardines.
11. Explain that, even though these nutrients are so important, some people do not feel well when they drink milk. They are not able to digest the natural sugar — called “lactose” — found in milk products.
 12. Point out that there also are non-dairy foods that provide needed calcium:
 - calcium-fortified juices, soy milk and cereal;
 - canned fish with bones like sardines and salmon; or
 - some green veggies like collard greens, turnip greens, kale and bok choy.
 13. Tell youth that food labels provide important information about the nutritional value of food. Draw youth’s attention to **What’s On the Label?** Ask them to look at the calcium information — the percent of daily value that each different type of milk product offers. Ask them to look also at the total fat grams. Ask them to consider which type of milk offers the most calcium with the lowest fat.
 14. Say that young people their age need to have three servings of foods from the milk group each day. Remind them that it is good to choose low-fat or fat-free milk, yogurt and cheese more often and foods like whole milk and ice cream less often.
 15. Say that the calcium and the other nutrients found in milk products also helps make teeth and gums healthy. Remind youth that the best way to keep teeth healthy is to brush and floss every day, and to see the dentist for regular check-ups.

SPOTLIGHT ON DENTAL HYGIENE

Help youth understand that the best way to keep their teeth healthy is to:

- **Brush twice a day with fluoride toothpaste.** Fluoride is a mineral that protects teeth from cavities, formed when bacteria in the mouth and carbohydrates in foods combine to make an acid that can damage the outer shell of teeth called “enamel.”
- **Floss every day.** Next to brushing, flossing is the most important step for keeping teeth healthy. It reduces bacteria in the mouth that can cause cavities.
- **Brush after eating or drinking sweet food or drinks.** Eating foods with sugars or carbohydrates can promote cavities.
- **Eat lots of foods with calcium.** Eating and drinking milk products — such as milk, yogurt and cheese or other calcium-rich foods — helps strengthen the teeth.
- **Eat lots of crunchy foods** — apples, carrots and celery — which are natural teeth cleaners.
- **Rinse the mouth out with water.** If away from home and unable to brush, rinsing removes at least some of the food from teeth.
- **Visit the dentist regularly.** Brushing and flossing keeps teeth clean, but dentists can provide a more thorough cleansing, and they can spot any problems with teeth.

WHOSE SMILE IS THIS?

Take a close-up photo of each group member’s smile. Have each youth cut out their mouth from the photo and glue it on an index card. Ask each to write a sentence under the smile that describes something they do to keep their teeth healthy. Place the photos on a bulletin board and invite members to guess whose smiles they see.

III. GROUP LEARNING ACTIVITY — CALCIUM TIC-TAC-TOE RELAY

1. Divide the large group into two teams: the “X” team and the “O” team, and give each team a marker.
2. Direct their attention to the tic-tac-toe board you have posted and tell them that the two teams are going to play a game of tic-tac-toe.
3. Instruct them to line up in two teams in front of the tic-tac-toe board.
4. Explain the rules:
 - The first two players — one on the “X” team and one on the “O” team — compete to answer a question you read aloud (from **Calcium Tic-Tac-Toe Relay Questions**).
 - The player who answers correctly runs to the tic-tac-toe board and fills in a square with an “X” or an “O” (depending on which team).
 - Both players then return to the back of their team line, and the next two players in line compete to correctly answer the next question.
 - The first team to get a horizontal, vertical or diagonal tic-tac-toe is the winning team. (You may want to play several rounds.)
5. Review the answers to the questions as a group.
6. End by asking, “What did you learn about strong teeth and bones?”

GIRLS AND CALCIUM

Calcium intake is critical for bone development because most bone strength and density is built during the tween and teen years. It is especially important for girls because they have lighter, thinner bones than boys do, and they are at greater risk for osteoporosis later in life. Only 12 percent of teen girls get enough calcium in their diets.⁵

IV. INDIVIDUAL APPLICATION

1. Ask youth to jot down the foods they eat that contain calcium.
2. Ask them to write down the names of new calcium-rich foods they might want to try.

V. SNACK TIME

1. Instruct group members to wash their hands.
2. Serve the snack you have selected for today.
3. While youth are snacking, ask them to share what they remember most from today's activity.

VI. TAKE-HOME CHALLENGES

Challenge group members to do one of these activities before you meet again:

1. Eat or drink one new food this week that has a lot of calcium but also is low-fat (a low-fat yogurt drink, low-fat chocolate milk or low-fat cheese).
2. Try one new weight-bearing activity that keeps them on their feet and moving for at least 10 minutes.

PHYSICAL ACTIVITY GUIDELINES FOR CHILDREN, ADOLESCENTS AND TEENS

According to the *Physical Activity Guidelines for Americans*, children, adolescents and teens should do 60 minutes or more of physical activity each day. Three types of physical activity are important:

AEROBIC ACTIVITY

Aerobic activity should make up most of a young person's 60 or more minutes of physical activity each day. This can include either moderate-intensity aerobic activity, such as brisk walking or vigorous-intensity activity, such as running. It is important to include vigorous-intensity aerobic activity at least three days per week.

MUSCLE STRENGTHENING

Include muscle strengthening activities, such as gymnastics or push-ups, at least three days per week as part of each young person's 60 or more minutes.

BONE STRENGTHENING

Include bone strengthening activities, such as jumping rope or running, at least three days per week as part of each young person's 60 or more minutes.⁶

ADDITIONAL RESOURCES

- See [Got Your Dairy Today?](#) on the ChooseMyPlate.gov website to learn more about the role of dairy in a healthy diet.
- Visit the KidsHealth® website to see a full [diagram of a cross-section of a bone](#) and zoom in on various elements.
- The U.S. Department of Health and Human Services has a website designed especially for girls, [Best Bones Forever!](#)
- Visit [Your Kid's Teeth](#) on the KidsHealth® website for helpful articles on dental health.
- For information on [physical activity guidelines](#), see the Centers for Disease Control and Prevention website.

CLEANLINESS AND FOOD ALLERGIES

Instruct group members to wash their hands with hot, soapy water for about 20 seconds to remove germs before snack time or handling food.

Before distributing food, ask whether anyone is allergic to ingredients in today's snack. The major food allergens are milk, eggs, fish, shellfish, nuts, wheat, peanuts and soybeans.

LESSON FOR YOUTH AGES 16 TO 18 YEARS

LESSON OVERVIEW

Participants play a game of Calcium Casino that gives them a chance to collect points for foods with the highest number of calcium grams.

ESTIMATED TIME: 45 minutes

OBJECTIVES

1. Identify the health and nutrition benefits of eating calcium-rich foods.
2. Compare calcium and fat content in milk products using food labels.
3. Identify which calcium-rich foods are lowest in fat using food labels.
4. Understand the importance of brushing and flossing for healthy teeth.
5. Explore ways to eat more calcium-rich foods.

MATERIALS

- Dice
- Pens or pencils
- Paper

RESOURCES AND HANDOUTS

- What's On the Label? (page 295)
- Calcium Casino Food List (page 297)

ADVANCE PREPARATION

1. Visit the [Milk Matters](#) website to learn about the importance of calcium for a healthy diet – and for healthy bones and teeth.
2. Review the [Nutrition Facts Label](#) on the U.S. FDA website so you can explain the **What's On the Label?** handout to youth.
3. Copy **Calcium Casino Food List** (one per pair).
4. Copy **What's On the Label?** (one per youth).
5. Select a snack to serve during the session wrap-up.

KEY TEACHING POINTS

- Foods in the dairy group provide calcium and other important nutrients that help build strong bones and teeth.
- It is important to choose high-calcium, low-fat foods from the milk food group.
- Other foods, like fish and eggs, also provide calcium.
- Bones develop most in the tween and teen years, so it is very important for kids to eat foods with lots of calcium.
- It is important to brush and floss every day to keep teeth healthy.

LEADING THE ACTIVITY

I. GET-MOVING EXERCISES

Select a Get-Moving Exercise from the list (on [page 16](#) in the Implementation Manual) and keep group members moving for 10 minutes. Tell the group that kids need to do some physical activity for 60 minutes every day and that this exercise is one example of what they can do.

II. INTRODUCTION

1. Begin by asking, “What do you know about strong teeth and bones? What do you want to know about strong teeth and bones?”
2. Ask youth why they think strong bones are important for a healthy body.
3. Point out that our bones allow us to do the things we want to do — stand up straight, run, jump and play. We want our bones to be as strong as possible.
4. Let youth know that, between the ages of 10 and 18, we make our bones strong for a lifetime. Bones grow the most at this time and, if we do not do all we can to keep our bones healthy now, we cannot make up for it later.
5. Explain that it is important for bones to be dense — strong all the way through — because, as people age, bones automatically become less strong. Without bone density, bones are weakened and can break more easily. This can lead to osteoporosis, a disease resulting from bone loss that causes people to get shorter, have a slightly hunched-over posture or experience bone fractures easily.
6. Point out that one way to build strong bones is through weight-bearing physical activity. These are the kinds of activities that keep us active and on our feet so our legs are able to carry our body weight.
7. Give some examples of weight-bearing activities: walking, running, dancing, climbing stairs and playing team sports like basketball, soccer or volleyball. State that, just like exercising our muscles makes them grow stronger, exercising our bones makes them work harder, which helps them build bone mass.
8. Point out that another way to build strong bones is through nutrients like calcium. Remind youth that milk/milk products are excellent sources of calcium and other nutrients needed for healthy bones.
9. Explain that most of the calcium in our bodies is in our bones. Our bodies replace small amounts of calcium from our bones all the time — if more is removed than is replaced, our bones will become weaker and more likely to break. This is why it is so important to get enough calcium from what we eat and drink.

10. Point out that most kids and teens, especially after age 9, do not get enough calcium.
11. Explain that other nutrients also help make strong bones.
 - *Phosphorus* fills in the bones and can be found in foods like milk, cheese, meat, poultry, fish and eggs.
 - *Potassium* protects the bones from acids in the body that might harm them. Milk and yogurt are good sources of potassium.
 - *Vitamin D* helps our bodies absorb the calcium and phosphorus we eat, and deposits them in our bones and teeth. This vitamin can be found in vitamin D-fortified milk, egg yolks or fish like salmon or sardines.
12. Explain that, even though these nutrients are so important, some people do not feel well when they drink milk. They are not able to digest the natural sugar — called “lactose” — found in milk products.
13. Point out that there also are non-dairy foods that provide needed calcium:
 - calcium-fortified juices, soy milk and cereal;
 - canned fish with bones like sardines and salmon; or
 - some green veggies like collard greens, turnip greens, kale and bok choy.
14. Tell youth that food labels provide important information about the nutritional value of food. Draw youth’s attention to **What’s On the Label?** Ask them to look at the calcium information — the percent of daily value that each different type of milk product offers. Ask them to look also at the total fat grams. Ask them to consider which type of milk offers the most calcium with the lowest fat.
15. Say that young people their age need to have three servings of foods from the milk group each day. Remind them that it is good to choose low-fat or fat-free milk, yogurt and cheese more often and foods like whole milk and ice cream less often.
16. Say that the calcium and other nutrients found in milk products also help keep teeth and gums healthy. Remind youth that the best way to keep teeth healthy is to get enough calcium, brush and floss every day and see the dentist for regular check-ups.
17. Explain to the group that neglecting oral hygiene can result in dental diseases. The longer plaque and bacteria are allowed to remain on the teeth the greater the risk of gum diseases developing. These diseases range from gingivitis, an inflammation of the gums, to periodontal disease, which causes the gums to pull away from the teeth and form pockets that get infected. If not treated, dental diseases can lead to the bones, gums and connective tissue between the teeth being destroyed.

SPOTLIGHT ON DENTAL HYGIENE

Help youth understand that the best way to keep their teeth healthy is to:

- **Brush twice a day with fluoride toothpaste.** Fluoride is a mineral that protects teeth from cavities, formed when bacteria in the mouth and carbohydrates in foods combine to make an acid that can damage the outer shell of teeth called “enamel.”
- **Floss every day.** Next to brushing, flossing is the most important step for keeping teeth healthy. It reduces bacteria in the mouth that can cause cavities.
- **Brush after eating or drinking sweet food or drinks.** Eating foods with sugars or carbohydrates can promote cavities.
- **Eat lots of foods with calcium.** Eating and drinking milk products — such as milk, yogurt and cheese or other calcium-rich foods — helps strengthen the teeth.
- **Eat lots of crunchy foods** — apples, carrots and celery — natural teeth cleaners.
- **Rinse the mouth out with water.** If away from home and unable to brush, rinsing removes at least some of the food from teeth.
- **Visit the dentist regularly.** Brushing and flossing keeps teeth clean, but dentists can provide a more thorough cleansing, and they can spot any problems with teeth.

WHOSE SMILE IS THIS?

Take a close-up photo of each group member’s smile. Have each youth cut out their mouth from the photo and glue it on an index card. Ask each to write a sentence under the smile that describes something they do to keep their teeth healthy. Place the photos on a bulletin board and invite members to guess whose smiles they see.

III. GROUP LEARNING ACTIVITY — CALCIUM CASINO

1. Divide the large group into pairs.
2. Give each pair a set of dice, paper and a pen/pencil and a copy of **Calcium Casino Food List**.
3. Explain the rules of the game:
 - The first player rolls the die and looks at the category of food that corresponds to the number rolled.
 - Point out that some foods are higher in calcium than others, and the goal is to choose those whenever possible.
 - That player adds the number of calcium points for the food to his score and scratches the selected food off the list so the opposing player cannot choose it.
 - The goal is to collect as many calcium points as possible. The player with the highest numbers win.
4. End by asking, “What did you learn about strong teeth and bones?”

GIRLS AND CALCIUM

Calcium intake is critical for bone development because most bone strength and density is built during the tween and teen years. It is especially important for girls because they have lighter, thinner bones than boys do, and they are at greater risk for osteoporosis later in life. Only 12 percent of teen girls get enough calcium in their diets.⁷

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V. SNACK TIME

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2. Serve the snack you have selected for today.
3. While youth are snacking, ask them to share what they remember most from today's activity.

VI. TAKE-HOME CHALLENGES

Challenge group members to do one of these activities before you meet again:

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Include bone strengthening activities, such as jumping rope or running, at least three days per week as part of each young person's 60 or more minutes.⁸

ADDITIONAL RESOURCES

- See [Got Your Dairy Today?](#) on the ChooseMyPlate.gov website to learn more about the role of dairy in a healthy diet.
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- The U.S. Department of Health and Human Services has a website designed especially for girls, [Best Bones Forever!](#)
- Visit [Your Kid's Teeth](#) on the KidsHealth® website for helpful articles on dental health.
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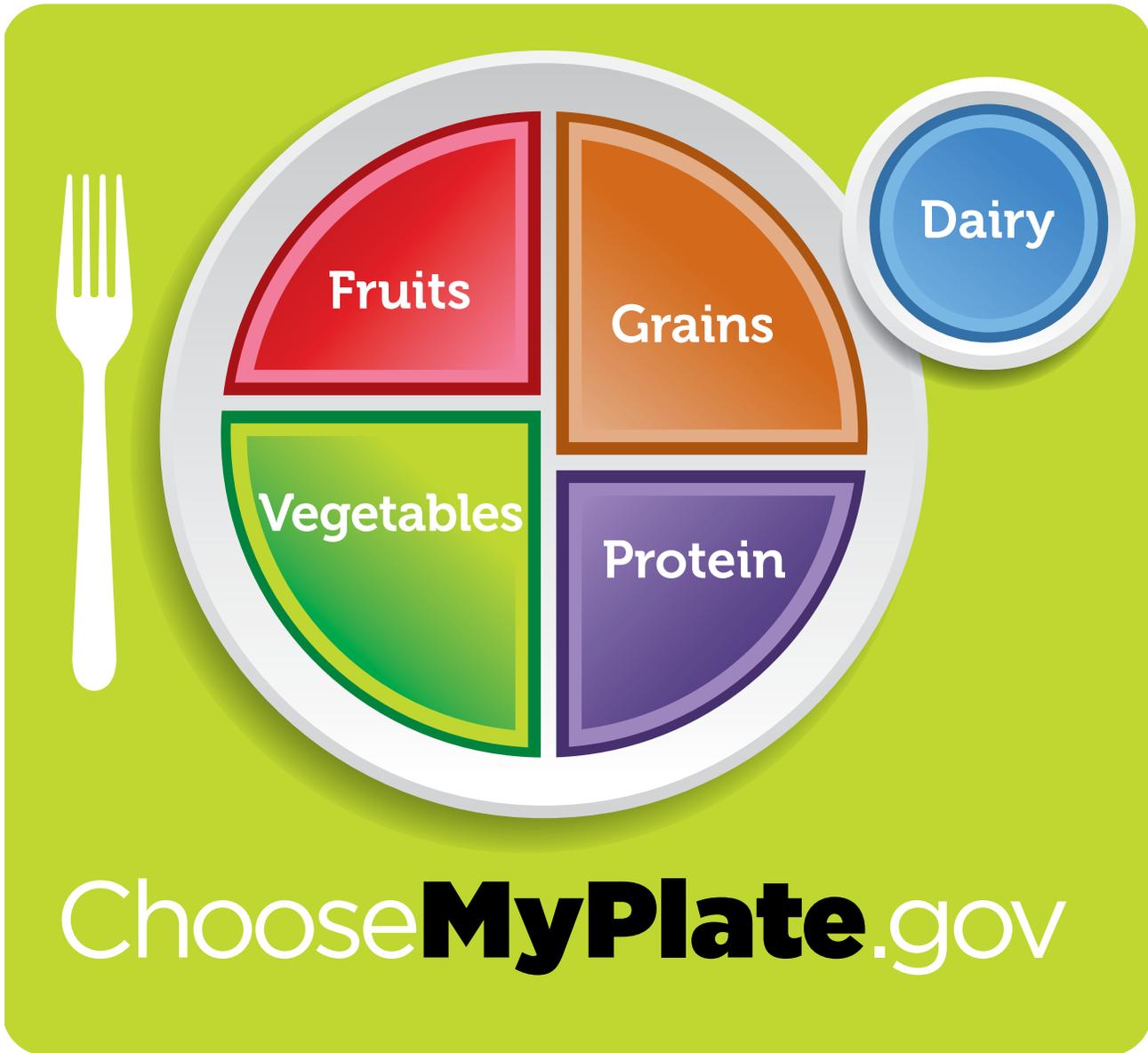
CLEANLINESS AND FOOD ALLERGIES

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Before distributing food, ask whether anyone is allergic to ingredients in today's snack. The major food allergens are milk, eggs, fish, shellfish, nuts, wheat, peanuts and soybeans.

RESOURCES AND HANDOUTS

MYPLATE GRAPHIC



Source: ChooseMyPlate.gov, http://www.choosemyplate.gov/images/MyPlateImages/JPG/myplate_green.jpg.

CALCIUM CHECK GAME BOARD

START		GO AHEAD TWO SPACES		MISS ONE TURN
				GO BACK TWO SPACES
	GO BACK TWO SPACES			
GO AHEAD TWO SPACES	MISS ONE TURN			GO AHEAD TWO SPACES
			END	
TAKE THE SHORTCUT		GO BACK TWO SPACES		
				TAKE THE SHORTCUT
				TAKE AN EXTRA TURN
TAKE AN EXTRA TURN				
	GO AHEAD TWO SPACES		GO AHEAD TWO SPACES	

CALCIUM CHECK GAME CARDS

Drinking _____ builds strong bones.	Walking, running, jumping builds strong _____.	Kids should brush and _____ teeth every day.
Eating foods with calcium makes _____ stronger.	Foods in the _____ group have calcium.	Low-fat and fat-free _____ are better to drink than whole milk.
Kids your age need _____ servings of dairy every day.	Eating low-fat yogurt is a good way to get _____.	Calcium in _____ also keeps teeth healthy.
Exercise makes _____ and muscles stronger.	Chocolate milk has as much calcium as regular _____.	Cheddar and Swiss _____ have a lot of calcium.
Milk, cheese and _____ are three foods in the dairy food group.	Eating foods with lots of sugar or carbohydrates can promote _____ enamel.	One cup of yogurt equals _____ serving of dairy.
It is important to see the dentist for regular _____.	Kids need _____ and other nutrients to build strong bones.	Bacteria in the mouth can cause _____.

CALCIUM CHECK GAME CARDS (ANSWER KEY)

Drinking <u>(milk)</u> builds strong bones.	Walking, running, jumping builds strong <u>(bones)</u> .	Kids should brush and <u>(floss)</u> teeth every day.
Eating foods with calcium makes <u>(bones)</u> stronger.	Foods in the <u>(dairy)</u> group have calcium.	Low-fat and fat-free <u>(milk)</u> are better to drink than whole milk.
Kids your age need <u>(2½)</u> servings of dairy every day.	Eating low-fat yogurt is a good way to get <u>(calcium)</u> .	Calcium in <u>(dairy/milk)</u> also keeps teeth healthy.
Exercise makes <u>(bones)</u> and muscles stronger.	Chocolate milk has as much calcium as regular <u>(milk)</u> .	Cheddar and Swiss <u>(cheese)</u> have a lot of calcium.
Milk, cheese and <u>(yogurt)</u> are three foods in the dairy food group.	Eating foods with lots of sugar or carbohydrates can promote <u>(tooth)</u> enamel.	One cup of yogurt equals <u>(one)</u> serving of dairy.
It is important to see the dentist for regular <u>(check-ups)</u> .	Kids need <u>(calcium)</u> and other nutrients to build strong bones.	Bacteria in the mouth can cause <u>(tooth decay)</u> .

CRACK THE CALCIUM CODE

Use the Calcium Code Book to complete the following sentences.

1. _____ grow the most between ages 10 and 18.

0 2 7 5 8

2. Physical activity helps make our bones _____.

8 10 12 2 7 4 5 1

3. Calcium is an important _____ that builds strong bones.

7 0 10 12 ~ 5 7 10

4. Foods in the milk group are good sources of _____.

2 0 4 2 ~ 0 1

5. It is good to choose _____ or _____ milk, yogurt and cheeses.

4 2 0 0 0 10 7 2 7 0 0 10

6. Other nutrients — phosphorus, _____ and Vitamin D — work with calcium to make bones stronger.

8 2 10 0 8 8 ~ 0 1

7. Some people cannot digest the natural sugar, _____, found in milk.

4 0 2 10 2 8 5

8. Some green veggies — _____ greens and turnip greens — provide calcium.

2 2 4 4 0 1 1

9. Calcium also helps keep strengthen _____ and _____.

10 5 5 10 1 7 4 0 1 8

10. To keep teeth and gums healthy, it is important to _____ and floss twice a day.

0 1 0 8 1

CALCIUM CODE BOOK

Code Book #1

A ∞

B ◊

C ≈

D ℓ

E §

F α

G ¥

Code Book #2

H £

I ~

J ★

K ✕

L ₤

M ℚ

N ▼

Code Book #3

O ⏳

P 🌸

Q △

R 🎵

S 🕯️

T 📄

Code Book #4

U □

V ◻

W ▭

X 🖐️

U 🌊

Z Ω

WHAT'S ON THE LABEL?

Milk fat-free

Nutrition Facts		
Serving Size 8 fl oz (245g)		
Servings Per Container 8		
Amount Per Serving		
Calories 90	Calories from Fat 0	
%Daily Value*		
Total Fat 0g		0%
Saturated Fat 0g		0%
TransFat 0g		0%
Cholesterol < 5mg		0%
Sodium 130mg		5%
Total Carbohydrate 12g		4%
Dietary Fiber 0g		0%
Sugars 12g		
Protein 8g		
Vitamin A 10% • Vitamin C 4%		
Calcium 30% • Iron 0%		

* Percent Daily Values are based on a 2,000 calorie diet.

Milk 1%, chocolate

Nutrition Facts		
Serving Size 8 fl oz (245g)		
Servings Per Container 8		
Amount Per Serving		
Calories 170	Calories from Fat 20	
%Daily Value*		
Total Fat 2.5g		4%
Saturated Fat 1.5g		8%
TransFat 0g		0%
Cholesterol 5mg		2%
Sodium 190mg		8%
Total Carbohydrate 29g		10%
Dietary Fiber 1g		5%
Sugars 27g		
Protein 8g		
Vitamin A 10% • Vitamin C 6%		
Calcium 30% • Iron 4%		

* Percent Daily Values are based on a 2,000 calorie diet.

Milk 2%

Nutrition Facts		
Serving Size 8 fl oz (245g)		
Servings Per Container 8		
Amount Per Serving		
Calories 130	Calories from Fat 45	
%Daily Value*		
Total Fat 5g		8%
Saturated Fat 3g		15%
TransFat 0g		0%
Cholesterol 20mg		7%
Sodium 125mg		5%
Total Carbohydrate 13g		4%
Dietary Fiber 0g		0%
Sugars 12g		
Protein 8g		
Vitamin A 10% • Vitamin C 4%		
Calcium 30% • Iron 0%		

* Percent Daily Values are based on a 2,000 calorie diet.

Milk whole

Nutrition Facts		
Serving Size 8 fl oz (245g)		
Servings Per Container 8		
Amount Per Serving		
Calories 150	Calories from Fat 70	
%Daily Value*		
Total Fat 8g		12%
Saturated Fat 5g		25%
TransFat 0g		0%
Cholesterol 35mg		11%
Sodium 125mg		5%
Total Carbohydrate 12g		4%
Dietary Fiber 0g		0%
Sugars 12g		
Protein 8g		
Vitamin A 6% • Vitamin C 4%		
Calcium 30% • Iron 0%		

* Percent Daily Values are based on a 2,000 calorie diet.

Vanilla ice cream

Nutrition Facts		
Serving Size 1/2 cup (65g)		
Servings Per Container 14		
Amount Per Serving		
Calories 140	Calories from Fat 70	
%Daily Value*		
Total Fat 7g		11%
Saturated Fat 4.5g		23%
TransFat 0g		0%
Cholesterol 20mg		6%
Sodium 40mg		2%
Total Carbohydrate 15g		5%
Dietary Fiber 0g		0%
Sugars 15g		
Protein 3g		
Vitamin A 4% • Vitamin C 0%		
Calcium 10% • Iron 0%		

* Percent Daily Values are based on a 2,000 calorie diet.

American cheese

Nutrition Facts		
Serving Size 1 slice (19g)		
Servings Per Container 24		
Amount Per Serving		
Calories 60	Calories from Fat 40	
%Daily Value*		
Total Fat 4.5g		7%
Saturated Fat 2.5g		13%
TransFat 0g		0%
Cholesterol 15mg		5%
Sodium 250mg		10%
Total Carbohydrate 1g		0%
Dietary Fiber 0g		0%
Sugars 1g		
Protein 3g		
Vitamin A 4% • Vitamin C 0%		
Calcium 20% • Iron 0%		

* Percent Daily Values are based on a 2,000 calorie diet.

Fruit-flavored yogurt

Nutrition Facts		
Serving Size 6 ounces (170g)		
Servings Per Container 1		
Amount Per Serving		
Calories 170	Calories from Fat 15	
%Daily Value*		
Total Fat 1.5g		2%
Saturated Fat 1g		5%
TransFat 0g		0%
Cholesterol 10mg		3%
Sodium 125mg		5%
Total Carbohydrate 33g		11%
Dietary Fiber 0g		0%
Sugars 30g		
Protein 6g		
Vitamin A 0% • Vitamin C 0%		
Calcium 20% • Iron 0%		

* Percent Daily Values are based on a 2,000 calorie diet.

Cottage cheese

Nutrition Facts		
Serving Size 1/2 cup (119g)		
Servings Per Container 4		
Amount Per Serving		
Calories 90	Calories from Fat 20	
%Daily Value*		
Total Fat 2.5g		4%
Saturated Fat 1.5g		8%
TransFat 0g		0%
Cholesterol 15mg		5%
Sodium 410mg		17%
Total Carbohydrate 6g		2%
Dietary Fiber 0g		0%
Sugars 5g		
Protein 11g		
Vitamin A 4% • Vitamin C 0%		
Calcium 8% • Iron 0%		

* Percent Daily Values are based on a 2,000 calorie diet.

Source: USDA Team Nutrition, Lesson 3: Get Your Calcium-Rich Foods, http://www.teamnutrition.usda.gov/resources/mpk3_lesson3.pdf.

CALCIUM TIC-TAC-TOE RELAY QUESTIONS (AND ANSWER KEY)

1. Bones grow the most between which ages?
(10 and 18 years)
2. Exercising our bones makes them work harder, and what does this help build?
3. What type of activity keeps us on our feet so our legs carry our body weight?
4. What is one example of a weight-bearing activity?
(Walking, running, dancing, climbing stairs, team sports)
5. Milk and milk products are excellent sources of what nutrient?
(calcium)
6. How many servings from the milk group do teens need?
(three per day)
7. What happens if calcium is removed from our bones and we do not replace it?
(bones become weaker, more likely to break)
8. What is the nutrient (other than calcium) that helps bones grow and is found in milk, cheese, meat, poultry, fish and eggs?
(phosphorus)
9. What is the name of the natural sugar found in milk products that some people cannot digest?
(lactose)
10. What is a non-dairy food that also provides calcium?
(juices, fish, eggs, green veggies)
11. What kind of milk offers the most calcium with the least fat?
(fat-free)
12. In addition to strengthening bones, calcium also strengthens what else?
(teeth and gums)
13. What is the nutrient that protects the bones from acids that might harm them?
(potassium)
14. What is the hard outer part of your teeth called?
(enamel)
15. What happens when bacteria in your mouth combines with carbohydrates in food?
(they make an acid)
16. How often should kids brush and floss their teeth?
(brush two times a day; floss once a day)
17. What is the name of the vitamin that helps your body absorb calcium?
(vitamin D)
18. What is the name of the mineral that protects teeth from cavities?
(fluoride)

CALCIUM CASINO FOOD LIST

Category 1	Calcium Points (Milligrams of Calcium)	Category 2	Calcium Points (Milligrams of Calcium)
Chocolate bar (Mr. Goodbar™) (1 bar)	54	Cheese puffs (3 oz.)	48
Chocolate chip cookies made from refrigerated dough (2 cookies)	6	Cupcake, chocolate, with frosting, low-fat (1 cupcake)	15
Glazed doughnut (yeast) (1 doughnut)	0	Fruit punch juice drink, from frozen concentrate (8 oz.)	17
Microwave popcorn with butter (1 cup)	11	Potato chips (3 oz.)	7
Soda (Bottled carbonated beverage with caffeine, 16 oz.)	10		

Category 3	Calcium Points (Milligrams of Calcium)	Category 4	Calcium Points (Milligrams of Calcium)
Almonds (1 oz., approx 23 nuts)	70	Baked beans (1 cup)	154
Black beans, boiled (1 cup)	46	Blackstrap molasses (1 Tbsp.)	172
Broccoli, cooked (1 cup, chopped)	62	Bok choy, boiled (1 cup)	158
Orange (1 medium)	70	Broccoli, raw (1 cup, chopped)	43
Parmesan cheese, grated (1 Tbsp.)	55	Collard greens, frozen, boiled (1/2 cup)	179
Red kidney beans, boiled (1 cup)	50	English muffin, whole wheat (1 muffin)	175
Sardines (2 sardines)	92	Frozen yogurt, soft-serve vanilla (1/2 cup)	103
Swiss chard, boiled (1/2 cup)*	51	Macaroni and cheese (1 cup)	92
Tortilla, corn (6")	42	Salmon, canned with bones (3 oz.)	181
Tortilla, flour (7")	58	Spinach, cooked from frozen (1/2 cup)*	146
		Tofu, firm, with added calcium sulfate (1/2 cup)	253
		Tomato soup prepared with fat-free milk (1 cup)	159
		Turnip greens, frozen, boiled (1/2 cup)	125

Category 5	Calcium Points (Milligrams of Calcium)	Category 6	Calcium Points (Milligrams of Calcium)
American cheese, low-fat and fat-free (2 oz., about 3 slices)	323	Canned sardines with bones (3 oz.)	325
Cheddar cheese, low-fat and fat-free (1 1/2 oz.)	307	Cheese pizza (1 slice)	182
Cottage cheese, low-fat (1/2 cup)	69	Fruit yogurt, low-fat (1 cup)	345
Milk, fat-free (1 cup)	306	Milk, fat-free (1 cup)	306
Milk, 1% low-fat (1 cup)	290	Milk, 1% low-fat (1 cup)	290
Soy beverage with added calcium (1 cup)	368	Orange juice with added calcium (1 cup)	351
Soybeans, cooked (1 cup)	130	Plain yogurt, fat-free (1 cup)	452
Swiss cheese, low-fat and fat-free (1 1/2 oz.)	336	Ricotta cheese, part skim (1/2 cup)	335
		Sesame seeds, whole, toasted, and roasted (1 oz.)	280

Source: Adapted from "Calcium Collector," Milk Matters; Eunice Kennedy Shriver National Institute of Child Health & Human Development (NICHD), NIH, DHHS, http://www.nichd.nih.gov/milk/teachers/upload/mm_calcium_collector.pdf.

