



## Healthy Eating: A Guide for Teens

Healthy eating is a way of balancing the food you eat to keep your body strong, energized, and well nourished. When you eat well, you are taking good care of your body.

- Aiming for regular meals (usually 3 meals per day in the morning, afternoon, and evening) and healthy snacks (when you are hungry or need extra energy)
- Eating foods from all of the food groups (grains, fruits, vegetables, proteins, and dairy) each day to meet your nutritional needs
- Balancing nutrient-rich foods with small amounts of other foods, such as sweets or fast foods
- Eating when hungry and stopping when full

### Healthy eating is a great way to:

- Have energy all day long
- Get the vitamins and minerals your body needs
- Stay strong for sports or other activities
- Reach your maximum height (*if you are still growing*)
- Maintain a healthy weight
- Prevent unhealthy eating habits, such as skipping meals and feeling overly hungry at the next meal

### Tips for Healthy Eating

#### 1. Don't skip meals - plan meals and snacks ahead of time.

- Believe it or not, eating 3 meals with healthy snacks in between is the best way to maintain your energy and a healthy weight. You are more likely to choose foods that are not as healthy when you skip meals and are overly hungry.
- Eat breakfast. Skipping breakfast can lead to over-eating later in the day.
- Eating away from home? Don't leave yourself stranded—take foods with you or know where you can go to buy something healthy and satisfying.

#### 2. Learn about simple, healthy ways to prepare foods.

- Try healthier ways to cook foods such as grilling, stir-

frying, microwaving, baking, and boiling instead of deep frying.

- Try fresh or dried herbs (*basil, oregano, parsley*) and spices (*lemon pepper, chili powder, garlic powder*) to flavor your food instead of adding less healthy toppings such as butter, margarine, or gravy.
- Trim the skin and fat off of your meat—you'll still get plenty of flavor and it's more nutritious.

#### 3. Sugar - avoid getting too much.

- Sugary drinks are a big source of empty energy. This means that they contain a lot of energy (*in the form of calories*) that your body may not need, and they don't contain a lot of nutrients (vitamins, minerals, protein, or even fiber.) Try diet sodas, sugar-free drink mixes, water, and flavored waters instead of regular drinks or juice. Even "natural" unsweetened juices contain a lot of energy you may not need. Don't go overboard—if you are going to drink regular soda or juice, try to limit the amount you drink to 4-8 ounces, one time per day.
- Lots of sugar is also found in foods such as cakes, cookies, and candies. Whole grain or wheat desserts may contain less sugar. It's okay to enjoy these foods once in a while as long as they don't replace healthier foods.

#### 4. Solid fat - avoid getting too much

- Foods with solid fats such as butter, cream, hydrogenated oils, or partially hydrogenated oils contain saturated and possibly trans fats. This can be a big source of empty energy, without many nutrients. Try lean proteins such as beans, fish, and poultry, or heart healthy oils such as olive or canola oil instead.
- As with sugar, solid fats can be found in desserts too. Choosing desserts made with fruit purees or olive oil instead of butter and cream can be healthier options; however, it is okay to enjoy these foods once in a while, as long as they don't replace healthier foods.

5. *Be mindful when eating.*

- Slow down when you eat. Try to relax and pace yourself so that your meals last at least 20 minutes, since it takes 20 minutes for you to feel full.
- Listen to your body. Eating when you are hungry and stopping when you are full will help your body balance its energy needs and stay comfortable. Ask yourself—am I eating because I'm hungry? Or am I stressed, angry, sad, or bored?
- Try naturally fiber rich foods, such as whole grains, vegetables, and fruits so you feel comfortably full.

6. *Avoid “diet thinking.”*

- There are no good foods or bad foods. All foods can be part of a healthy diet, when eaten in moderation.
- You do not need to buy low carb, fat-free, or diet foods (unless told specifically by your medical provider to do so). These foods are not necessarily lower in calories—they usually have lots of other added ingredients to replace the carbs or fat.
- YOU are more important than your weight or body size—believe it! Your health and happiness can be hurt by drastic weight loss plans. If you have not yet reached your adult height, too much weight loss could interfere with your growth. Instead of trying extreme approaches, focus on making small lifestyle changes that you can stick with for life. This approach will leave you feeling healthier and happier in the long run.

Remember: If you feel you are overweight and want to make some changes in your food intake, it's a good idea to contact your health care provider. You may also want to ask your health care provider for a referral to see a dietitian (*a person who has studied nutrition and knows all about food and healthy ways to lose weight*). Learning about nutrition can help you make healthier choices, but it is important to think of food as just one important part of your life.



## Backpack Snacks: A Guide for Teens

Backpack snacks can help fuel your body while you are on the go. If you have plenty of healthy snacks packed in your backpack (or other bag of choice), you will have some nutritious snacks to munch on when you get hungry. If you have backpack snacks with you, you won't have to grab food from a vending machine or fast food restaurant that may not be as healthy for you. Backpack snacks are also called "portable foods" because they are very easy to take with you and usually do not need to be kept cold. You can create backpack snacks using foods in all of the food groups. All of our backpack snack ideas are healthier than most of the foods you will find in a vending machine, or at fast food places. To get the most out of your snacks, stick with fresh fruits and veggies, whole grains, lowfat/nonfat dairy, and lean or plant-based protein.

Here are some ideas for healthy snacking:

### Dairy and Dairy Substitutes

**Benefits:** Build strong bones

**Examples:** \*yogurt, \*soy yogurt, \*string cheese, \*milk, \*soy milk, \*almond milk, pudding

*\*Foods such as yogurt, cheese, and milk need to be kept cold and should be carried in a bag that is made to keep food cold, or with a freezer pack.*

### Grains

**Benefits:** Provide energy for muscles and brain

**Examples:** high-fiber cereal, granola bars, pretzels, popcorn, bagel, animal crackers, graham crackers, baked chips, chex mix®

### Fruits

**Benefits:** Provide vitamins and minerals for healthy skin, hair, nails and immune system

**Examples:** apples, bananas, grapes, oranges, raisins, berries, pears, dried fruit, light fruit cups

### Protein

**Benefits:** Builds muscle

**Examples:** soy nuts, tuna, edamame, hummus, hard boiled eggs

### Vegetables

**Benefits:** Provide vitamins and minerals for healthy skin, hair, nails and immune system

**Examples:** carrot sticks, celery sticks, vegetable juice, cherry tomatoes, cut up broccoli, peppers, or cauliflower

### Fats

**Benefits:** Keep you full

**Examples:** nuts, peanut butter, sunflower seeds, guacamole





## Calcium and Teens: How to Prevent Osteoporosis

Remember

- Calcium is a mineral that gives strength to your bones.
- It's important to get enough calcium during your teen years so you'll have strong bones now and when you're older.
- You may need a calcium supplement if you don't get enough calcium in your diet.

You have probably seen the "milk mustache" on some of your favorite stars, but are you sporting your own? Unfortunately, most teen girls do not get enough calcium in their diets.

### What is calcium? Why do I need to be concerned about it now?

Calcium is a mineral that gives strength to your bones. It is also necessary for many of your body's functions, such as blood clotting and nerve and muscle function. During the teenage years (*particularly ages 11-15*), your bones are developing quickly and storing calcium so that your skeleton will be strong later in life. Nearly half of all bone is formed during these years. It is important that you get plenty of calcium in your diet because if your body does not get the calcium it needs, it takes calcium from the only source that it has: your bones. This can lead to brittle bones later in life and broken bones or stress fractures at any time.

### What is osteoporosis?

Osteoporosis is a bone disease that causes bones to become fragile and more likely to break. It develops slowly and is usually caused by a combination of genetics, and too little calcium in the diet. Osteoporosis can also lead to shortened height because of collapsing spinal bones and can cause a hunched back.

### How do I know if I'm at risk?

Several factors can put a young person at risk for developing osteoporosis. They include:

- Being white
- Being female
- Being underweight
- Having a family history of osteoporosis

- Having irregular periods
- Doing little or no exercise
- Not getting enough calcium in your diet
- Smoking
- Drinking large amounts of alcohol

Osteoporosis can be prevented. There are some risk factors that you cannot change (*like your race and your family history*), but there are some you can! Eat a healthy diet, exercise on a regular basis, and don't smoke!

### How much calcium do I need?

Children and teenagers between the ages of 9 and 18 should aim for 1,300 milligrams per day, which is about 4 servings of high-calcium food or drinks. Each 8-ounce glass of milk (*whether skim, 1%, 2%, or whole*) and each cup of yogurt has about 300 milligrams of calcium. Adults 19 to 50 years of age should aim for 1,000 milligrams per day.

### How do I know how much calcium is in the foods I eat?

Nutrition Facts		
Serving Size 1 Cup (240mL)		
Servings Per Container		
Amount per serving		
Calories 110	Calories from Fat 20	
% Daily Value*		
Total Fat 2.5g	4%	
Saturated Fat 1.5g	8%	
Trans Fat 0g		
Cholesterol 10mg	4%	
Sodium 130mg	5%	
Total Carbohydrate 13g	4%	
Dietary Fiber 0g	0%	
Sugars 12g		
Protein 8g		
Vitamin A 10%	Vitamin C 4%	
Calcium 30%	Iron 0%	
Vitamin D 25%		
*Percent Daily Values are based on a diet of 2,000 calories. Your daily values may be higher or lower depending on your calorie needs:		
	Calories 2,000	2,500
Total Fat	Less than 65g	80g
Sat. Fat	Less than 30g	35g
Cholesterol	Less than 300mg	300mg
Sodium	Less than 2,400mg	2,400mg
Total Carbohydrates	30g	37g
Dietary Fiber	25g	30g

For foods that have a nutrition facts label, there will also be a % Daily Value (DV). To figure out how many milligrams of calcium a food has, take the % DV, drop the % sign, and add a zero. Can you use the label on the left to find out how much calcium is in one cup of skim milk? 30% means there is about 300mg of calcium per serving. The chart below shows how much calcium is in some calcium-rich foods from different food groups.

### What foods contain calcium?

You probably know that dairy foods such as milk and cheese are good sources of calcium, but do you know that tofu and beans contain calcium, too? Even if you don't drink milk or eat cheese, you can get the calcium you need from other foods. See the list of high-calcium foods at the end of this guide.

## What if I'm lactose intolerant?

If you are lactose intolerant and can't drink milk, there are plenty of other ways to get your calcium. These include fortified soy milk, fortified juice, almond milk, or lactose-free milk (*the lactase enzyme that you are missing has been added into the milk*). You may also take lactase enzyme tablets before eating dairy products to help digest the lactose sugar in the milk. Some people who are lactose intolerant can tolerate having small amounts of milk or other dairy products.

## How can I get more calcium in my diet?

### Breakfast

- Have a bowl of cereal with milk.
- Use milk instead of water when making oatmeal.
- Drink calcium-fortified orange juice.
- Make a healthy breakfast shake with a cup of milk or yogurt and a handful of frozen fruit.
- Add cheese to your bagel. Most cheeses, except for cream cheese, are high in calcium.

### Lunch

- Choose milk instead of soda at school. If you don't like plain milk, try chocolate or strawberry milk.
- Pack a yogurt with your lunch.
- Add cheese to your sandwich.

### Snacks

- If you like coffee-flavored drinks, try a milk-rich latte (*decaf is best*).
- Look for cereal bars or energy bars that contain calcium. Check the label to see if calcium is listed.
- Make hot cocoa with milk instead of water.
- Eat broccoli dipped in a veggie dip made with plain yogurt.
- Snack on cheese sticks or almonds.
- Have a Greek yogurt (it's packed with protein) as an after-school snack.

### Dinner

- Have macaroni and cheese made with milk.
- Try chowder-style soups.
- Prepare canned tomato soup with milk instead of water.
- Add tofu to stir fries
- Include more beans (legumes) in your meals.
- Make lasagna or other pasta dishes with ricotta cheese.
- Eat thin-crust pizza with vegetables.

- Have pudding made with milk or frozen yogurt for dessert.

## What if I just can't get enough calcium in my diet?

It is best to try to meet your calcium needs by having calcium-rich foods and drinks, but some teens find it difficult to fit in 4 servings of high-calcium foods daily. If you don't like dairy foods, calcium fortified juice or soymilk, you may need a calcium supplement. Calcium citrate (*for example, Citracal®*) and calcium carbonate (*for example, Viactiv® or a generic chewable*) are good choices. When choosing a supplement, keep the following tips in mind:

- Most calcium supplements have between 200 and 500 milligrams of calcium. Remember, your goal is 1,300 milligrams of per day.
- If you have to take more than one supplement per day, it is best to take them at different times of the day because your body can only absorb about 500 milligrams of calcium at a time.
- Don't count on getting all of your calcium from your multivitamin. Most basic multivitamin/mineral tablets have very little calcium in them.
- Look for a calcium supplement that has vitamin D added. Vitamin D helps your body absorb calcium.
- Avoid "oyster shell" or "natural source" calcium supplements. These may have lead or aluminum in them and are not recommended.
- Know that your dietitian or health care provider will be able to support you with recommendations on what supplement will best suit your needs.

<b>Food</b>	<b>Serving</b>	<b>Mg of Calcium</b>
<i>Dairy Foods</i>		
Yogurt, low-fat	1 cup	338-448
Ricotta cheese, part-skim	½ cup	337
Milk ( <i>skim</i> )	1 cup	229
Fortified soy and rice milks	1 cup	301
Milk ( <i>1%</i> )	1 cup	305
Milk ( <i>whole</i> )	1 cup	276
Ricotta cheese, whole	½ cup	257
Swiss cheese	1 ounce	252
Mozzarella cheese, part skim	1 ounce	222
Cheddar cheese	1 ounce	201
Muenster cheese	1 ounce	203
American cheese	1 ounce	296
Frozen yogurt	½ cup	103
Ice cream	½ cup	84
Pudding	4 ounces	54
<i>Protein Foods</i>		
Canned sardines ( <i>with bones</i> )	3 ounces	325
Soybeans, cooked	1 cup	261
Canned salmon ( <i>with bones</i> )	3 ounces	181
Nasoya Tofu Plus®, firm	3 ounces	200
Kidney beans, canned	1/2 cup	44
White beans, cooked	1/2 cup	81
Crab, canned	3 ounces	77
Clams, canned and drained	3 ounces	55
Almonds	1 oz (23 nuts)	76
Sesame seed	1 tablespoon	88
<i>Vegetables</i>		
Collard greens, cooked	½ cup	134
Spinach, cooked	½ cup	122
Kale, cooked	½ cup	47
Broccoli, cooked	½ cup	31
<i>Fruits</i>		
Calcium-fortified orange juice	1 cup	349
Rhubarb, cooked	½ cup	174
Dried figs	1/3 cup	80
Orange	1	52
<i>Cereals</i>		
Total Raisin Bran® Cereal	1/2 cup	500
Cream of Wheat® Cereal	1 cup	303
Basic 4® Cereal	1 cup	250
Kix® Cereal	1 ¼ cup	171
Luna® Bar	1 bar	425





## Vitamin D: A Guide for Teens

You may know that vitamin D is important for you, but do you also know that you can get vitamin D from the sun? Read on to discover more about this sunshine vitamin and learn how you can get the vitamin D your body needs to stay healthy.

### What is vitamin D?

Vitamin D helps your immune system function effectively, reduces inflammation, and helps your body store calcium. Calcium is a mineral that gives strength to your bones and teeth, and helps your nerves and muscles function properly.

### Why is vitamin D important?

The teenage years are the most important for bone growth and development. If you don't get enough vitamin D during your teenage years, you may be at risk for osteoporosis when you get older. Osteoporosis is the development of weak bones that, over time, can break easily.

### How much vitamin D do I need?

Both children and adolescents should get at least 600 IU (International Units), of vitamin D each day. Supplements should be taken with food to improve absorption.

### Where can I get vitamin D?

Your body can create vitamin D when it is exposed to sunlight. However, sunscreen blocks your skin's ability to make vitamin D. Given the risk for skin cancer with sun exposure, using sunscreen is advised. Other ways to get vitamin D are through your diet or taking a vitamin D supplement.

The best food sources of vitamin D are fish such as salmon, tuna, and mackerel, and products fortified with vitamin D such as milk, orange juice, and some yogurts. Although it's great to get vitamins and minerals from food, taking a vitamin is another way to get the right amount. If you do decide to take a multivitamin supplement, check the label on the bottle and make sure one serving provides at least 600 IU of vitamin D.

### Can I get too much vitamin D?

You can't get too much vitamin D from the sun or from eating certain food. However, taking too much vitamin D as a supplement can be harmful. Research studies have shown that the maximum amount of vitamin D a teen should get is 4000 IU per day, and the minimum is 600 IU per day. More is not always better! Taking too much vitamin D can result in kidney stones.

### Is vitamin D deficiency a concern for adolescents?

Yes. A research study done at Boston Children's Hospital shows that 1 in 5 teenage boys and 1 in 4 teenage girls have low vitamin D levels in their blood.

### Am I at risk for Vitamin D deficiency?

Many people are at risk for vitamin D deficiency. Talk to your health care provider to see if you should have a vitamin D test.

*Below is a table that lists some healthy foods which contain vitamin D:*

Food	Serving	IUs Vitamin D
Fortified Milk	1 cup	116
Fortified Soy Milk	1 cup	104
Fortified Orange Juice	1 cup	100
Salmon (cooked)	3.5 ounces	518
Tuna (canned)	3 ounces	68
Shrimp (canned)	3 ounces	152
Egg (whole)	1 egg	41
Kellogs® low-fat granola w. raisins	$\frac{2}{3}$ cup	40
Raisin Bran Cereal®	1 cup	91
Total Cereal®	1 cup	133
Kix Cereal®	1 cup	40
Quaker® instant oatmeal for women	1 packet	154



# Bone Health Basics

**DIRECTIONS FOR FACILITATOR:** Before playing the games included at the end of this module, read the following sentences aloud to the group. You can also make this into a game by simply saying “BLANK” when you come to the bolded word (*or words*), and see if someone in the group can guess the word (*relating to bone health*) that completes the sentence.

1. Calcium is a mineral that gives strength to your bones and **teeth**.
2. Your body **stores** calcium during your teen years so your skeleton will be stronger when you are older.
3. If your body doesn't get enough of the calcium it needs, it takes it from your **bones**.
4. Your bones will become weak if the **calcium** inside of them gets used up.
5. Osteoporosis is a **bone disease** that develops slowly and is usually caused by a combination of genetics, lack of calcium and vitamin D in the diet, low weight, low estrogen levels, and other factors.
6. **Osteoporosis** causes your bones to be weak and more likely to break. It can also lead to “shrinking” or shortened height and a hunched back when you get older.
7. Eating foods naturally **high** in calcium (*such as dairy products*) will help your body get the calcium it needs.
8. Eating foods “**fortified**” with calcium such as orange juice with added calcium and certain cereals, are good sources of calcium.
9. **Weight-bearing** exercise, such as walking, running, dancing, and weight lifting can improve bone strength.
10. Your bones reach their peak mass around age **30**, after which bone density or mass starts to decrease.
11. **Vitamin D** increases calcium absorption. It is found in vitamins, fortified dairy products, egg yolk, and fish.

# Don't Say It !

## GOAL

Participants will gain an understanding of the many different factors that influence bone health through an interactive game using word association.

## AGES

12-18

This activity works best with a group of up to 12 participants (*2 teams, each with 3-6 participants*).

## ESTIMATED TIME

15-20 minutes

## MATERIALS NEEDED

**Don't Say It** game cards, score cards, timer, or clock with a second hand

## PREPARATION

Copy and cut out the **Don't Say It** game cards and score cards for each team.  
*(Optional: Game cards can be laminated if you plan on re-using the game.)*

## VARIATION

This activity can be adapted for larger groups by dividing the participants into more than two teams, or you may consider playing less rounds.

## DIRECTIONS FOR FACILITATOR

1. Divide the group into two teams (*A and B*) by counting off-“1, 2, 1, 2, ...”

2. Shuffle the **Don't Say It** game cards the place them face down in a pile.

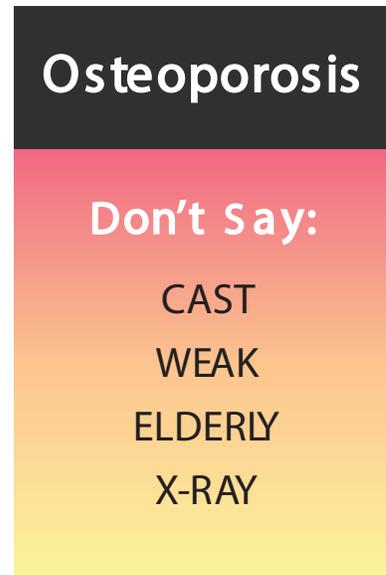
3. **Explain the following rules to all participants:**

- The object of this game is to guess the word at the top of the game card without using the forbidden **Don't Say It** words as clues. (*See sample.*) Team A will play against Team B. Whichever team has more points at the end of the game wins.
- Team A will place the pile of **Don't Say It** game cards face down in front of one of the participants in the group. He or she will be the clue giver and the other team members will be the guessers.
- One participant from Team B will be seated next to the clue giver from Team A to make sure that the forbidden words are not used as clues.
- The clue giver will turn over the first card from the pile and describe the word located at the top of the card to his/her teammates without using the forbidden **Don't Say It** words.

After he/she is done, a participant should start the timer and give Team A one minute to guess the word.

- Once Team A guesses the correct answer, have a participant note it on the score sheet. If no one can come up with the correct answer, move on to the next game card without adding a point for that round.
- Team A should continue until they have played 9 cards. They should add up their points on their score card.
- Repeat for Team B using the 9 remaining game cards. When they are finished, look at the score cards from each team to determine who won.

## Sample



The clue giver turns over the first card and sees Osteoporosis.

A participant starts the timer.

**Clue giver:** "This is a disease"

**Guesser:** "Cancer?"

**Clue giver:** "It makes bones break easily"

**Guesser:** "Osteoporosis?"

**Clue Giver:** "Correct!"

A participant gives the team one point for the correct answer.

## Osteoporosis

### Don't Say:

CAST  
WEAK  
ELDERLY  
X-RAY

## Bone

### Don't Say:

SKELETON  
CALCIUM  
WHITE  
BREAK

## Tofu

### Don't Say:

VEGETARIAN  
SOY  
WHITE  
FIRM

## Jump Rope

### Don't Say:

DOUBLE DUTCH  
ROPE  
SWING  
RHYMING

## Cheese

### Don't Say:

WHEEL  
CHEDDAR  
SWISS  
MOUSE

## Milk

### Don't Say:

WHITE  
DRINK  
CALCIUM  
COW

## Dancing

### Don't Say:

HIP HOP  
BALLET  
MUSIC  
PROM

## Soccer

### Don't Say:

KICK  
BALL  
GOAL  
FIELD

## Sardines

### Don't Say:

FISH  
SMALL  
CAN  
SMELL

## X-ray

Don't Say:

HOSPITAL  
DOCTOR  
BONES  
RADIATION

## Yogurt

Don't Say:

SPOON  
DARY  
DANNON®  
FRUIT

## Running

Don't Say:

MARATHON  
SNEAKERS  
TRACK  
SPORT

## Weight Lifting

Don't Say:

GYM  
BENCH PRESS  
REPS  
MUSCLES

## Tennis

Don't Say:

VENUS & SERENA  
WILLIAMS  
NET  
COURT  
RAQUET

## Summer

Don't Say:

BEACH  
SUNSHINE  
SEASON  
VACATION

## Calcium

Don't Say:

MILK  
NUTRIENT  
BONES  
HEALTH

## Orange Juice

Don't Say:

CALCIUM  
FORTIFIED  
FRUIT  
FLORIDA

## Almonds

Don't Say:

NUTS  
CANDY BAR  
SHAPE  
BROWN

# Team A Scorecard

ROUND 1 \_\_\_\_\_

ROUND 2 \_\_\_\_\_

ROUND 3 \_\_\_\_\_

ROUND 4 \_\_\_\_\_

ROUND 5 \_\_\_\_\_

ROUND 6 \_\_\_\_\_

ROUND 7 \_\_\_\_\_

ROUND 8 \_\_\_\_\_

ROUND 9 \_\_\_\_\_

TOTAL POINTS \_\_\_\_\_

# Team B Scorecard

ROUND 1 \_\_\_\_\_

ROUND 2 \_\_\_\_\_

ROUND 3 \_\_\_\_\_

ROUND 4 \_\_\_\_\_

ROUND 5 \_\_\_\_\_

ROUND 6 \_\_\_\_\_

ROUND 7 \_\_\_\_\_

ROUND 8 \_\_\_\_\_

ROUND 9 \_\_\_\_\_

TOTAL POINTS \_\_\_\_\_

# Sketch It!

## GOAL

Participants will gain basic knowledge of the association between certain types of foods, activities, and other factors that influence bone health through free-style drawing.

## AGES

12-18

This game works best with a group of  
6 or more

## ESTIMATED TIME

15-20 minutes

## MATERIALS NEEDED

Cloth bag, basket, or other container that you can't see through, **Sketch It/Remember Where** game cards, paper and markers (or *chalkboard and chalk*), watch or clock with a second hand

## PREPARATION

Copy and cut out the **Sketch It/Remember Where** game cards and answer key.

*(Optional: Game cards can be laminated if you plan on re-using the game.)* Review Vitamin D and Calcium handouts with the group prior to the game to familiarize them with the various factors that are related to bone health.

## DIRECTIONS FOR FACILITATOR

1. Divide the group into 2 teams by counting 1, 2, 1, 2, ... Then toss a coin (or suggest another quick activity) to determine which team will go first.

2. A participant from the first team should pull a card, followed by a participant from the second team.
3. The designated "artist" on the first team will draw a picture that represents the word/image on the game card without using words or numbers. The artist may draw a picture similar to the one on the game card, or he/she can draw something else that represents the word on the card. That artists' teammates will then have 60 seconds to guess the word.
4. One point will be awarded if the artists' team is able to correctly identify the word within 60 seconds. If no one has guessed the word, no points are awarded.
5. The artists' team will also be awarded an extra point if at least one of the members can tell the group why the word helps to strengthen bones, or why it doesn't.
6. Repeat with the second team.
7. The first team to reach 10 points wins.

## **DISCUSSION**

Encourage participants to discuss the benefits of getting the recommended daily allowance for calcium. Review the Answer Key, which talks about the activities, foods, and drinks that promote bone health, and those that do not.

# Remember Where

## GOAL

Participants will gain an understanding of the many factors that influence bone health through this memory and word association game. *(The key to this game is remembering the pictures as well as the placement of each card.)*

## AGES

12-18

This game works best with 2 or more players

## ESTIMATED TIME

15-20 minutes, longer for larger groups

## MATERIALS NEEDED

Sketch It/Remember Where game cards

## PREPARATION

Copy and cut out the **Sketch It/Remember Where** game cards and answer key. Since **Remember Where** is a matching game, you will need to make two copies of each game card. *(Optional: Game cards can be laminated if you plan on re-using the game.)* If playing with more than one group, copy a set of cards for each group.

## VARIATION

To adapt to a larger group, divide participants, and copy a set of cards for each team.

## DIRECTIONS FOR FACILITATOR

1. Split the group up into 3 or 4 teams.

2. Give each team a set of **Remember Where** game cards and have them place them face down on a table or floor.

3. Explain the following directions to all participants:  
Player 1 should start by flipping over two cards. If there is a match, Player 1 will pick them up, and then he/she must tell the rest of the group how the image on the card relates to bone health. *(If the player is unable to do this, the other participants can help.)*  
Player 1 should then take another turn and flip over 2 more cards. If there is no match, the cards should be placed face down in the same spot. Then the next player should take a turn. Players continue taking turns until all possible matches are found.

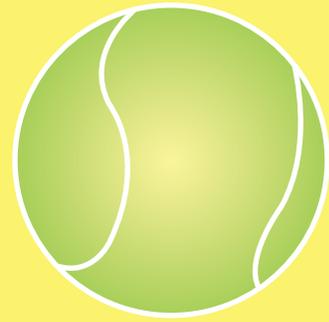
4. At the end of the game, the person with the most matches wins.

## DISCUSSION

Review all of the game cards, and review the Answer Key, which talks about the activities, foods, and drinks that promote bone health, and those that do not.



Weight Lifting



Tennis



Dancing



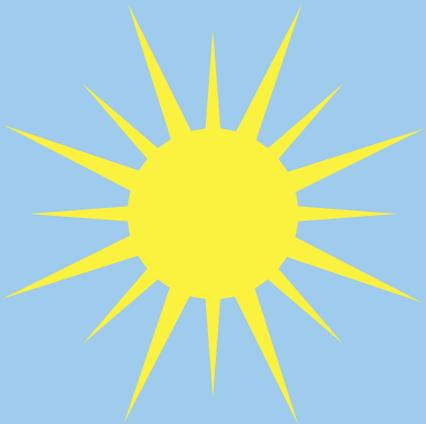
Soccer



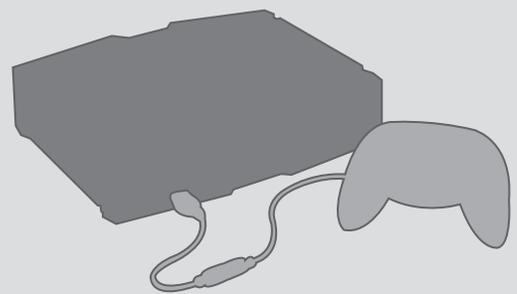
Running



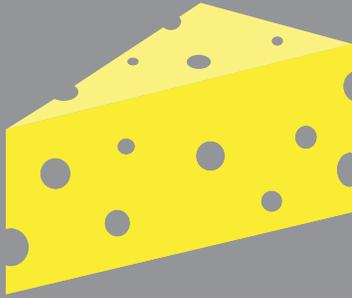
Fortified  
Orange juice



Sunlight



Video Games



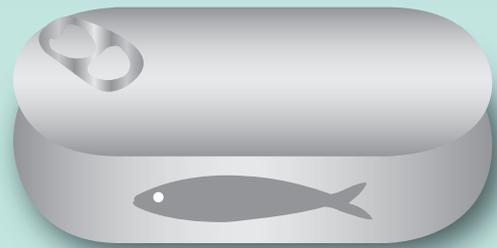
Cheese



Under 30



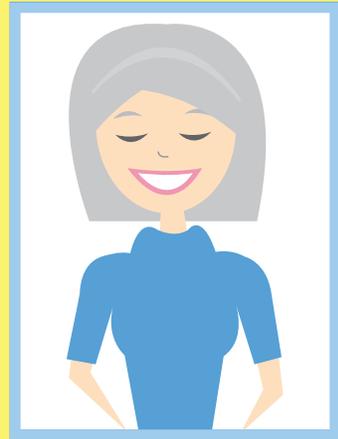
Winter



Sardines



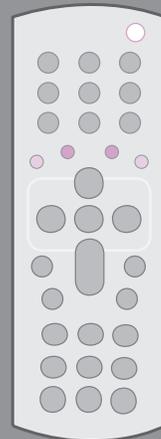
Basketball



Over 30



Summer



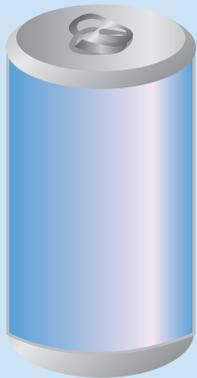
Remote Control



Multivitamins



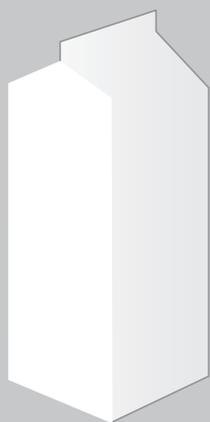
Caffeine



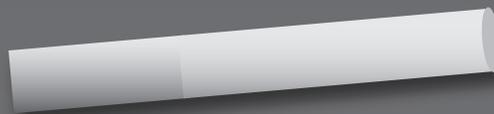
Soda



Yogurt



Milk



Cigarettes

# Sketch It & Remember Where Answer Key

Many factors, such as age, gender, family history, diet, physical activity, and exposure to sunlight, can affect bone health. In the “Sketch It” and “Remember Where” games, participants are asked to identify how different factors impact bone health. This answer key explains how the pictures on each card relate to bone health.

## **WEIGHT LIFTING**

All weight bearing activities increase bone density.

## **TENNIS**

All weight bearing activities increase bone density.

## **DANCING**

All weight bearing activities increase bone density.

## **SOCCER**

All weight bearing activities increase bone density.

## **RUNNING**

All weight bearing activities increase bone density.

## **BASKETBALL**

All weight bearing activities increase bone density.

## **VIDEO GAMES**

Playing video games is not a weight bearing activity, so it does not increase bone density.

Doing a weight bearing activity instead of playing video games would promote bone health.

## **REMOTE CONTROL**

Watching TV is not a weight bearing activity, so it does not increase bone density. Doing a weight bearing activity instead of watching TV would promote bone health.

## **SUNLIGHT**

Exposure to sunlight allows the body to make vitamin D, which helps to increase absorption and use of calcium.

## **UNDER 30/OVER 30**

We make the most bone during our teen years, so bone density increases until the age of 30.

After 30, bone density begins to decrease.

## **SUMMER/WINTER**

In the summer, your body may be able to make the Vitamin D it needs from the sun. Because sun exposure increases your risk for getting skin cancer, many experts recommend getting vitamin D from food and vitamins instead of the sun.

## **SARDINES**

Sardines are a good source of dietary calcium, which can either be used by the body or stored in bones. When dietary sources of calcium are adequate, the body will not take calcium from bones.

## **CHEESE/YOGURT/MILK**

Foods from the dairy group are good sources of dietary calcium, which is either used by the body or stored in bones. When dietary sources of calcium are adequate, the body will not take calcium from bones.

## **FORTIFIED ORANGE JUICE**

Fortified foods have calcium added to them. The calcium in fortified orange juice is either used by the body or stored in bones. When dietary sources of calcium are adequate, the body will not take calcium from bones.

## **MULTIVITAMINS**

Vitamin and mineral supplements which include calcium and vitamin D will improve your bone health. Supplements are especially helpful in the winter months when some people are not exposed to enough sunshine to make sufficient amounts of vitamin D.

### **SODA/CAFFEINE**

Soda does not contain the calcium or vitamin D needed for bone health. Drinking milk or calcium containing beverages instead of soda would promote bone health.

### **CIGARETTES**

Research studies suggest that smoking cigarettes is related to decreased bone density and an increased risk for osteoporosis.

# Vending Machine Wisdom

## GOAL

Participants will gain knowledge about vending machine snack options that contain calcium. This activity is divided into two sessions. The first session involves explaining how to complete the Vending Machine Wisdom form as a take-home assignment. The second session involves bringing the group back together to discuss their findings.

## AGES

12-18

## ESTIMATED TIME

**Session 1:** 20-30 minutes

Take home assignment: 1 to 2 hours

**Session 2:** 1 hour

## MATERIALS NEEDED

Vending Machine Wisdom form, pen/pencil

## PREPARATION

Copy one **Vending Machine Wisdom** form for each participant.

## SESSION 1

### DIRECTIONS FOR FACILITATOR:

1. Explain to the group that the purpose of this session is to prepare for the take home assignment in which participants will do their research and fill out the **Vending Machine Wisdom** form. The participants will use the form to evaluate vending machine snack options.

2. Pass out a **Vending Machine Wisdom** form to each participant.

3. After you've passed out the forms, be sure to remind participants to look for vending machines in safe areas, such as school cafeterias and community centers.

4. Explain how to fill out each column.  
Column A: *Where is the location of the vending machine?*

In column A, participants should write down the location of the vending machine that they are evaluating. If there is time for participants to evaluate more than one vending machine, they should write one per row in column A.

Column B: *What types of snacks are offered?*

In column B, participants should write the category of the snacks that are offered. Examples include chips, candy, soda, etc.

Column C: *How many snack choices are there?*

Participants should count how many different snack choices are offered in the vending machine and write down that number. Remind them not to count duplicate snacks.

Column D: *Do any snacks contain calcium?*

Participants should guess how many snacks they think might contain calcium and write down that number. For example: cheese and crackers and yogurt covered raisins would be good guesses, so the number 2 would be written down.

Column E: *List one snack that you think may contain calcium.*

Participants should write down the name of the snack in this column.

Column F: *Is this a healthy snack?*

In this column, participants should write either yes or no, based on whether or not they think the snack listed in column E is a healthy choice.

4. Check in with participants to make sure that they understand the activity.
5. Provide your telephone number (*or e-mail address*) so that participants can reach you in case they are having difficulty with the assignment.

## **SESSION 2**

### **DIRECTIONS FOR FACILITATOR:**

1. Encourage participants to share their findings from the **Vending Machine Wisdom** form with other members of the group. Participants can sit in a circle and take turns talking about the information they collected.
2. Pay special attention to the answers from “Column F - Is this a healthy snack?”  
Ask the group the following questions:
  - Why do you think this snack is a healthy choice?
  - Why do you think this snack is an unhealthy choice?
  - What would be a healthier option?
  - Did you find any snacks in the vending machine that you think are good sources of calcium?
  - What kind of healthy snack choices do you think should be added to vending machines?
  - Do you think certain foods should be removed from vending machines? Why?

# Vending Machine Wisdom

## CALCIUM COUNTS!

Please fill out the form below by finding vending machines and answering questions about the snacks you see. Follow the example in the first line.  
 Congratulations on helping to make calcium count!

A. Vending machine location	B. Type of snacks found in the vending machine	C. How many snack choices are in the vending machine?	D. How many snacks do you think contain calcium?	E. List a snacks that you think contains calcium	F. Do you think this is a healthy choice? (yes or no)
School cafeteria	Chips, candy	20	1	Yogurt covered raisins	Yes

# Program Evaluation

Please help us to improve our presentations by giving us your comments. Thank you!

Topic:

Date:

Presenters:

1. Did you like the presentation?  Yes  No

Why?

2. Do you think the presenters were prepared?  Yes  No

3. Do you think this topic was valuable?  Yes  No

Why, or why not?

4. List two important points that you remember from the presentation.

1.

2.

5. List one thing you plan to change (*or you will do differently*) because of what you learned during the presentation.

6. Do you have any suggestions for the speaker(s) to improve the program?