PASS THE MILK, YOGURT AND CHEESE, PLEASE!

DAIRY FOODS ARE NATURALLY RICH IN CALCIUM, A MINERAL THAT IS A MAJOR COMPONENT OF BONES. OTHER FOOD SOURCES OF CALCIUM INCLUDE:

- **DAIRY**
- **CERTAIN DARK GREEN VEGETABLES**
- **FISH WITH BONES**
- **FORTIFIED FOODS**

HEALTHY BONE OR OSTEOPOROSIS?

The bone disks on the table show the four stages between a **HEALTHY BONE** and the bone disease known as **OSTEOPOROSIS**.

**ACTIVITY**

Measure the amount of calcium in bones at different stages of life.
PASS THE MILK, YOGURT AND CHEESE, PLEASE!

HERE'S WHAT TO DO AT THIS STATION:

1. Identify the importance of dairy in the daily diet.
   - Dairy foods are naturally rich in calcium, the mineral that is a major component of bones. Other food sources of calcium include certain dark green vegetables, calcium-set tofu, fish with bones and fortified foods.
   - Eating a well-balanced and varied diet is also needed to build a strong skeleton. In addition to calcium, you need vitamin D, protein and many other nutrients to build and maintain a strong skeleton.
   - To build strong bones, you need to participate in weight-bearing activities such as running and jumping.

2. View the bone density discs on the table.
   Low bone density can cause your bones to become brittle and fragile. The bone disks on the table show the four stages between a healthy bone and the bone disease known as osteoporosis.

3. Complete the “Pass the Milk, Yogurt and Cheese, Please!” activity sheet.

4. At home, complete the “Are You a Best Bone Builder?” worksheet and review the “Mix Up Your Movement” worksheet.

Activity – Measure the amount of calcium in bones.
On the table, you will find a bag filled with corn meal, which represents the calcium in bones. You will measure the amount of calcium in the bones of a healthy skeleton at different ages and stages by following the directions below.

1. A newborn baby has about ¼ cup of calcium in their bones. Measure ¼ cup of corn meal and place it in the bag labeled “newborn.”
2. A 10 year-old has about 4 cups of calcium in their bones. Measure 4 cups of corn meal and place it in the bag labeled “10 year-old.”
3. A 15 year-old has about 9 cups of calcium in their bones. Measure 9 cups of corn meal and place it in the bag labeled “15 year-old.”
4. An adult has about 11 cups of calcium in their bones. Measure 11 cups of corn meal and place it in the bag labeled “adult.” Interesting fact: An adult with osteoporosis may have as little as 6.5 cups of calcium in their bones.
PASS THE MILK, YOGURT AND CHEESE, PLEASE!

DAIRY FACTS

- Dairy foods are best known for providing the calcium and vitamin D that are important for building a strong skeleton. It is important to consume adequate dairy foods when you are young because that is the critical time period when you are building your skeleton. Dairy foods also provide many other key nutrients such as protein, vitamin A, vitamin B12, riboflavin, niacin, potassium and phosphorus.
- Kids and teens between the ages of 10-14 require three cups from the dairy group each day. A one cup serving is equivalent to one cup of milk or yogurt and one and a half ounces of natural cheese (about one third cup grated cheese).
- To build strong bones, you also need to participate in weight-bearing activities such as walking, running and jumping.

1. On the back of each dairy photo card, you will see a nutrition facts label. Use the labels to answer the questions below.
   a. Which two dairy foods contribute the most protein per serving?
   b. Which photo card offers an option for someone who is allergic to cow’s milk?
      ________________________________
   BONUS: Can you think of another reason a person might select this product over dairy?
   c. Use the low-fat berry yogurt and the low-fat plain yogurt cards to answer the questions below.
      - Which has more calcium? ______________________
      - Which has more protein? ______________________
      - List the grams of sugar in each type of yogurt.
        Sweetened berry _______ Plain _______
      - Overall, which type of yogurt is more nutritious? (circle)   Berry   Plain

2. List three calcium-rich foods that are good to eat for a snack.
   1. ______________________
   2. ______________________
   3. ______________________

3. TRUE or FALSE – Dairy products such as butter, sour cream and cream cheese are not included in the MyPlate dairy category because they are relatively low in calcium.

4. The list below includes action steps for fitting in your three servings of daily dairy or other calcium rich foods. Check one or more that you would be willing to work on. You can also come up with your own action step.
   - Drink 1% milk at school breakfast and/or lunch.
   - Make a fruit yogurt smoothie to drink after sports practice.
   - Sprinkle Parmesan cheese on a pasta dish.
   - Eat a yogurt parfait (yogurt, fruit and granola) instead of ice cream.
   - Choose non-dairy sources of calcium-rich food this week (e.g. tofu, kale, sardines, calcium fortified orange juice)
   - Your own action step (describe):
1. On the back of each dairy photo card, you will see a nutrition facts label. Use the labels to answer the questions below.
   a. Which two dairy foods contribute the most protein per serving?
      - Cottage Cheese
      - Greek Yogurt
   b. Which photo card offers an option for someone who is allergic to cow’s milk?
      - Soy Milk
   BONUS: Can you think of another reason a person might select this product over dairy? They are a vegetarian.
   c. Use the low-fat berry yogurt and the low-fat plain yogurt cards to answer the questions below.
      - Which has more calcium? Low fat plain yogurt
      - Which has more protein? Low fat plain yogurt
      - List the grams of sugar in each type of yogurt.
        Sweetened berry 39  Plain 16
      - Overall, which type of yogurt is more nutritious? (circle) Berry  Plain

2. List three calcium-rich foods that are good to eat for a snack. Many choices of various types of yogurt, cheese, milk,
   1. soy milk
   2. 
   3. 

3. TRUE or FALSE – Dairy products such as butter, sour cream and cream cheese are not included in the MyPlate dairy category because they are relatively low in calcium.

4. The list below includes action steps for fitting in your three servings of daily dairy or other calcium rich foods. Check one or more that you would be willing to work on. You can also come up with your own action step.
   - Drink 1% milk at school breakfast and/or lunch.
   - Make a fruit yogurt smoothie to drink after sports practice.
   - Sprinkle Parmesan cheese on a pasta dish.
   - Eat a yogurt parfait (yogurt, fruit and granola) instead of ice cream.
   - Choose non-dairy sources of calcium-rich food this week (e.g. tofu, kale, sardines, calcium fortified orange juice)
   - Your own action step (describe):
1. I spend at least 15 minutes each day walking (include the time you walk to school, your friend's house, around the mall, etc.).
   - Yes (3 points)
   - No (0 points)

2. I practice or play a weight-bearing sport such as soccer, football, lacrosse, basketball, or running at least three times each week.
   - Yes (3 points)
   - No (0 points)

3. Every day, I play actively for at least one hour (include the time you play at recess, during school PE, and with your family and friends).
   - Yes (3 points)
   - No (0 points)

4. I get enough calcium in my diet.
   - Every day (5 points)
   - At least five days each week (3 points)
   - Three to four days each week (1 point)
   - Two days or less each week (-3 points)

**IT’S A FACT!**
Your body can only build bone when you are young. By the time you reach the ripe old age of about 30, your skeleton will be as strong as it ever can be.

To build strong bones now, be sure to exercise your bones and take in plenty of calcium.

- Aim for 1,300 milligrams of calcium if you are between the ages of 9-18. Kids ages 4-8 need 1,000 milligrams each day. The calcium worksheet lists the calcium content of common foods.
- If you use dairy products, be sure to take in enough milk, yogurt and cheese servings for your age (2 ½ servings until age eight, three servings if you are nine or older).
- If you don’t consume dairy products, you need three or more servings of calcium-rich foods such as calcium-fortified soy milk or calcium-fortified orange juice, canned fish with bones, almonds, dark leafy greens, tofu or other calcium-fortified foods.

**IF YOU SCORED:**

**11-14 POINTS**
Congratulations, you are a BBB! You are on your way to building healthy bones for life.

**7-10 POINTS**
You might want to set a goal to get more calcium and exercise each day.

**6 OR FEWER POINTS**
You are not building the best bones for life. Getting enough calcium in your diet and weight-bearing exercise are both needed to build a healthy skeleton.

**MORE ON BONE BUILDING**
Eating a well-balanced and varied diet is also needed to build a strong skeleton. Vitamins A, D, and K, magnesium, protein and many other nutrients contribute to bone building and overall good health.
**CALCIUM CONTENT OF COMMON FOODS**

<table>
<thead>
<tr>
<th>FOOD</th>
<th>MILLIGRAMS (MG) PER SERVING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yogurt, plain, low fat 8 ounces</td>
<td>415</td>
</tr>
<tr>
<td>Mozzarella, part skim 1.5 ounces</td>
<td>333</td>
</tr>
<tr>
<td>Sardines, canned in oil, with bones 3 ounces</td>
<td>325</td>
</tr>
<tr>
<td>Yogurt, fruit, low fat 8 ounces</td>
<td>313–384</td>
</tr>
<tr>
<td>Orange juice, calcium-fortified 8 ounces</td>
<td>300–350</td>
</tr>
<tr>
<td>Cheddar cheese 1.5 ounces</td>
<td>307</td>
</tr>
<tr>
<td>Milk, nonfat 8 ounces</td>
<td>299</td>
</tr>
<tr>
<td>Soy milk, calcium-fortified 8 ounces</td>
<td>299</td>
</tr>
<tr>
<td>Milk, 2% milk fat 8 ounces</td>
<td>293</td>
</tr>
<tr>
<td>Milk, whole 8 ounces</td>
<td>276</td>
</tr>
<tr>
<td>Tofu, calcium-set ½ cup</td>
<td>253</td>
</tr>
<tr>
<td>Salmon, pink, canned, solids with bone 3 ounces</td>
<td>181</td>
</tr>
<tr>
<td>Cottage cheese, 1% milk fat 1 cup</td>
<td>138</td>
</tr>
<tr>
<td>Ready-to-eat cereal, calcium-fortified 1 cup</td>
<td>Check label*</td>
</tr>
<tr>
<td>Kale, raw, chopped 1 cup</td>
<td>100</td>
</tr>
<tr>
<td>Turnip greens, fresh, boiled ½ cup</td>
<td>99</td>
</tr>
<tr>
<td>Chinese cabbage, bok choy, raw, shredded 1 cup</td>
<td>74</td>
</tr>
<tr>
<td>Almonds, dry roasted 1 ounce (approx. 23)</td>
<td>70</td>
</tr>
<tr>
<td>Tortilla, corn one 6 inch diameter</td>
<td>46</td>
</tr>
<tr>
<td>Apricots, dried ½ cup</td>
<td>35</td>
</tr>
<tr>
<td>Tortilla, flour one 6 inch diameter</td>
<td>32</td>
</tr>
<tr>
<td>Sour cream, reduced fat 2 tablespoons</td>
<td>31</td>
</tr>
<tr>
<td>Bread, whole-wheat 1 slice</td>
<td>30</td>
</tr>
<tr>
<td>Broccoli, raw ½ cup</td>
<td>21</td>
</tr>
</tbody>
</table>

*CALCIUM CALCULATION – “ADD A ZERO”*

Nutrition Facts food labels list calcium as a "percent daily value" (or % DV). Since the daily value is based on 1,000 milligrams, you can convert % DV of calcium to milligrams by simply adding a zero. For instance, a serving of yogurt that provides 25% DV for calcium contains 250 milligrams of calcium per serving.
MIX UP YOUR MOVEMENT!
AIM FOR A TOTAL OF 60 MINUTES OF PHYSICAL ACTIVITY EACH DAY.

<table>
<thead>
<tr>
<th>TO HELP YOU:</th>
<th>PICK ACTIVITIES THAT:</th>
<th>EXAMPLES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengthen your heart (and also improve your endurance)</td>
<td>Keep you moving (and breathing a little hard) for at least fifteen minutes at a time</td>
<td>Riding your bike, jump rope games, dancing to music, inline skating, running, jogging, swimming, all games that involve running such as basketball, rugby, baseball, football, soccer, or playing tag</td>
</tr>
<tr>
<td>Build sturdy bones</td>
<td>Are “weight bearing,” which means your body works against gravity</td>
<td>Walking, running, marching, hopping, skipping, karate, gymnastics, tennis, jump rope, all games that involve running such as basketball, rugby, baseball, football, soccer, or playing tag</td>
</tr>
<tr>
<td>Become stronger</td>
<td>Work your muscles</td>
<td>Tug-of-war, rope climbing, pumping higher on a swing, swinging bar to bar along play equipment, handstands, exercises such as sit-ups and push-ups</td>
</tr>
<tr>
<td>Move, reach and bend easier</td>
<td>Help you to stretch and become more flexible</td>
<td>Ballet and other dancing, gymnastics, stretching exercises, doing the splits, toe reaches, yoga</td>
</tr>
<tr>
<td>Enjoy moving your body and stay in good shape</td>
<td>Are FUN!</td>
<td>YOUR favorite activities, sports, and exercises!</td>
</tr>
</tbody>
</table>