Better Bone Health

Presented by:
Rachel Ritchison, MS, RD, LD
HealthSmart Wellness Program

• HealthSmart Care Management Solutions provides you with many tools and services to help you take a positive and hands-on role in your health and wellness.

• The Wellness Coach Program will assist you in establishing personal health goals, provide you with educational information and help move you toward positive lifestyle changes.

For more information regarding the Wellness Coach Program, please contact the Wellness Coach Team at:

(800) 469-4631 ext. 2465
(214) 574-2465
wellness.coach@healthsmart.com
What is osteoporosis?

Osteoporosis:
• A disease where bones become fragile and can easily break.
  ➢ Bones become so brittle that a fall or even mild stresses like bending over or coughing can cause a fracture.
  ➢ In many cases, bones weaken when you have low levels of calcium and other minerals in your bones.
  ➢ There are no symptoms of osteoporosis, so without getting your recommended screenings a broken bone may be the first sign.
  ➢ The best prevention is taking steps to keep bones strong and healthy throughout life.
Bone Mineral Density Testing

• Because osteoporosis has no symptoms in the early stages, bone mineral density testing (or BMD) is recommended.
• Your healthcare provider may recommend a BMD test if you are:
  ✓ A woman age 65 or older
  ✓ A man age 70 or older
  ✓ Or at any age with:
    ✓ A broken bone caused by normal activities
    ✓ Early menopause
    ✓ Chronic rheumatoid arthritis, chronic kidney disease, eating disorders
    ✓ History of hormone treatment for prostate cancer or breast cancer
    ✓ Significant loss of height due to compression fractures of the back
    ✓ Smoking
    ✓ Strong family history of osteoporosis
Importance of Healthy Bones

• Your bones are living tissues and go through a remodeling process which constantly replaces old bone with new.

• When you’re young, new bone is produced faster than it breaks down old bone. This process leads to Peak Bone Mass which is usually achieved around the age of 30. Afterwards, remodeling continues, but you begin to lose more bone mass than you gain.

• How likely you are to develop Osteoporosis depends on how much bone mass you attain by the age of 30 and how fast you lose it after that.
Risk Factors You CAN’T Change

Gender

• Fractures from osteoporosis are almost twice as common in women as they are in men.
• Four out of five Americans who have osteoporosis are women.
• For women, drops in estrogen associated with menopause can significantly impact bone loss.

Age

• The older you get, the greater your risk for thinning, weakened bones.
• You reach your peak bone mass around age 30.

Race

• In the U.S. people who are Caucasian or of Asian or Latino descent are more likely than those of African descent to develop the disease.
Risk Factors You CAN’T Change

Family History

• Having a parent or sibling with osteoporosis puts you at greater risk, especially if you also have a family history of fractures.

Frame Size

• Men and women who are exceptionally thin (with a body mass index of 19 or less) or have small body frames tend to have a higher risk because they may have less bone mass to draw from as they age.

Thyroid Hormone

• Too much thyroid hormone also can cause bone loss.
• This can occur either because your thyroid is overactive (hyperthyroidism) or because you take excess amounts of thyroid hormone medication to treat an underactive thyroid (hypothyroidism).

Disease Conditions

• Stomach surgery and weight-loss surgery can affect your body's ability to absorb calcium.
• Having certain diseases and conditions such as Crohn’s disease, celiac disease, rheumatoid arthritis, and others may contribute to osteoporosis.
Risk Factors You CAN Change

• Diet
• Inactive lifestyle
• Smoking
• Alcohol intake
• Medication use
Calcium is essential to maintaining total body health

• Calcium plays an important role in:
  ✓ Building and maintaining strong bones
  ✓ Key for heart, muscle and nerve function

• When you don’t consume enough your body will take calcium from your bones.

• Low calcium intake contributes to diminished bone density, early bone loss and an increased risk of fractures.

• If your body lacks calcium you may also experience muscle pain, muscle spasms, and tingling and numbness in your hands and feet.
How much is enough?

• The amount of calcium you need to stay healthy changes over your lifetime.

<table>
<thead>
<tr>
<th>Life Stage:</th>
<th>Recommended Intake:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 1 year old</td>
<td>200 to 260 mg</td>
</tr>
<tr>
<td>Age 1 to 3 years</td>
<td>700 mg</td>
</tr>
<tr>
<td>Age 4 to 8 years</td>
<td>1,000 mg</td>
</tr>
<tr>
<td>9 to 18 years</td>
<td>1,300 mg</td>
</tr>
<tr>
<td>19 to 50 years</td>
<td>1,000 mg</td>
</tr>
<tr>
<td>Women 51 to 70</td>
<td>1,200 mg</td>
</tr>
<tr>
<td>Men 51 to 70</td>
<td>1,000 mg</td>
</tr>
<tr>
<td>71 and older</td>
<td>1,200 mg</td>
</tr>
</tbody>
</table>

Too much calcium may increase the chance of developing kidney stones in some people, so the safe upper limit for total daily calcium intake from all sources is **2,000 - 2,500 mg**.
Calcium from Foods

- The best way to meet your daily calcium needs is through the foods you eat.

Food sources of calcium:
- Dairy (cheese, milk, and yogurt)
- Dark green, leafy vegetables (broccoli, kale)
- Fish with edible bones (sardines, canned salmon)
- Calcium-fortified foods (cereal, orange juice)

- Check out the nutrition facts box on the label to see how much calcium is in foods you commonly eat.
  - 20% or more is considered high
## Foods with Calcium

<table>
<thead>
<tr>
<th>Foods with Calcium</th>
<th>Milligrams (mg) Per Serving</th>
<th>Percent DV*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk, nonfat, 8 ounces</td>
<td>302</td>
<td>30</td>
</tr>
<tr>
<td>Orange juice, calcium-fortified, 6 ounces</td>
<td>200–260</td>
<td>20–26</td>
</tr>
<tr>
<td>Cheddar cheese, 1.5 ounces</td>
<td>306</td>
<td>31</td>
</tr>
<tr>
<td>Cottage cheese, 1% milk fat, 1 cup unpacked</td>
<td>138</td>
<td>14</td>
</tr>
<tr>
<td>Sour cream, reduced fat, cultured, 2 tablespoons</td>
<td>32</td>
<td>3</td>
</tr>
<tr>
<td>Yogurt, plain, low fat, 8 ounces</td>
<td>415</td>
<td>42</td>
</tr>
<tr>
<td>Frozen yogurt, vanilla, soft serve, ½ cup</td>
<td>103</td>
<td>10</td>
</tr>
<tr>
<td>Pudding, chocolate, instant, made with 2% milk, ½ cup</td>
<td>153</td>
<td>15</td>
</tr>
<tr>
<td>Salmon, pink, canned, solids with bone, 3 ounces</td>
<td>181</td>
<td>18</td>
</tr>
<tr>
<td>Sardines, canned in oil, with bones, 3 ounces</td>
<td>324</td>
<td>32</td>
</tr>
<tr>
<td>Tofu, soft, made with calcium sulfate, ½ cup</td>
<td>138</td>
<td>14</td>
</tr>
<tr>
<td>Spinach, cooked, ½ cup</td>
<td>120</td>
<td>12</td>
</tr>
<tr>
<td>Turnip greens, boiled, ½ cup</td>
<td>99</td>
<td>10</td>
</tr>
<tr>
<td>Kale, cooked, 1 cup</td>
<td>94</td>
<td>9</td>
</tr>
<tr>
<td>Broccoli, raw, ½ cup</td>
<td>21</td>
<td>2</td>
</tr>
<tr>
<td>Bread, whole-wheat, 1 slice</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>Ready-to-eat cereal, calcium-fortified, 1 cup</td>
<td>100–1,000</td>
<td>10–100</td>
</tr>
</tbody>
</table>
Calcium Supplements

• Calcium supplements may be beneficial if you can’t meet your calcium needs through diet alone.

• But remember, more isn’t necessarily better. Excess calcium can cause:
  - Kidney stones
  - Prostate cancer
  - Constipation
  - Calcium buildup in your blood vessels
  - Impaired absorption of iron and zinc

• Monitor your diet to determine your average intake compared to the recommendations.

• Always speak to your physician about whether you need a supplement and if you do which type should you take.

• If it is determined calcium supplementation is right for you, consider these tips:
  - Calcium is best absorbed at levels of about 500-600 mgs at a time.
  - Take your calcium supplement twice a day for best absorption.
  - Take your calcium supplement with food.
Vitamin D

- Vitamin D, also known as the “sunshine vitamin,” is another critical nutrient for bone health because it helps your body absorb calcium.

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<th>Life Stage:</th>
<th>Recommended Intake:</th>
</tr>
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<tbody>
<tr>
<td>19 – 50 years</td>
<td>600 – 800 IU/day</td>
</tr>
<tr>
<td>Over 50 years</td>
<td>800 – 1000 IU/day</td>
</tr>
</tbody>
</table>
Sources of Vitamin D

• Skin makes vitamin D when exposed to ultra-violet light (or UVB) from the sun.

• The time of day and time of the year, the latitude of where you live, and the color of your skin can all impact how much vitamin D your body makes.

• Many people spend their time outside covered up, in the shade and wearing sun block. All of these factors can contribute to low levels of vitamin D.

• Other sources of vitamin D:
  - Egg yolk
  - Fatty fish
  - Fortified dairy products
  - Fortified cereal
  - Supplements – Ask your physician how much is right for you
    • Vitamin D3 is thought to be most effective (compared to Vitamin D2)
What You Can Eliminate

• **Alcohol** can interfere with the body's ability to absorb calcium.
  - Regular consumption of more than two alcoholic drinks a day increases your risk of osteoporosis.

• **Caffeine** increases calcium excretion in the urine and reduces absorption.
  - Moderate caffeine intake of 1 cup of coffee or 2 cups of tea per day has no negative effects.

• **Soda** is associated with lower bone mass.
  - Probably due to replacing milk with soda.

• **Smokers** have an increased risk of fractures and osteoporosis due to habits associated with smoking.
  - In many cases some smokers had a thinner frame size, less physically active and had poor diets.
  - Women who smoke also tend to have an earlier menopause than nonsmokers.
Exercise to Build Strong Bones

• Exercise strengthens your muscles, heart, helps to keep your weight in check and BUILDS STRONG BONES!

• Weight-bearing exercise and resistance training are best to stimulate your bones to be stronger.
  ➢ Walking, jogging, running
  ➢ Tennis
  ➢ Dancing
  ➢ Stair climbing
  ➢ Plyometrics (hopping and jumping exercises)

• Resistance training or using weights will also help to keep your bones strong.
  ➢ Perform full body resistance training 2-3 times per week.
Points to Remember

• Get the daily recommended amount of Calcium and Vitamin D.

• Engage in weight-bearing exercise.

• Don’t smoke and avoid excessive amount of soft drinks and alcohol.

• Have a bone density test if you are at risk.

• Talk to your doctor about bone health and medications if needed.

• **REMEMBER,** Osteoporosis can happen to anyone, but adopting healthy lifestyle habits early on can help keep your bones strong throughout your life!
Quiz

• Complete the Lunch-n-Learn Quiz by clicking on the link provided below to receive credit for your participation:

https://www.surveymonkey.com/s/April_LunchnLearnQuiz_2014
Questions?
For additional information, please contact:

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