What are weak bones?
Weak bones, or osteoporosis, happen when the bones in the body are weak and can break easily. Weak bones happen when the amount of bone loss in the body is larger than the amount of bone gain. Bones can get weak slowly over time. Often a person does not know they have weak bones until a bone breaks.

What are the signs of weak bones?
Because of mineral loss, osteoporosis can cause progressive breaks in a person’s back. This causes a person to lose height and get shorter and shorter. This spinal compression causes a gradual decrease in height due to forward bending of the upper spine. This eventually results in a painful, stooped back, commonly referred to as a “dowager’s hump.” Loss of height can also result in a “pot belly” or a prominent abdomen even with no increase in weight.

What are the risk factors for weak bones?
- Being a woman
- Being White or Asian
- Being older in age
- Being thin
- Lack of exercise
- Having a family history of broken bones
- Some drugs, smoking
- History of poor eating (low calcium intake)
- Early menopause (before age 45 years)

What is so bad about weak bones?
When you have weak bones, simple things like sneezing, bending, and stepping can cause a bone to break. Broken bones can lead to:
- Disability
- Death

How do you know if you have weak bones?
1. Tools that measure the amount of bone you have (bone density) can tell a person if they have weak bones.
2. A doctor can look at your risk factors for weak bones and measure how strong your bones are.
3. If you have weak bones, your doctor may give you special pills or medicine.

What foods should I eat for strong bones?
- 3 to 4 servings of low-fat milk and foods made from low-fat milk like cheese and yogurt
- A mix of fruits, vegetables, bread, and low-fat meats, fish, and chicken.

These foods will give your bones all the vitamins, minerals, and protein they need to be strong.
Foods with Calcium
- Milk
- Yogurt
- Cheese
- Almonds
- Broccoli
- Ice cream
- Juices with added calcium
- Tofu with added calcium
- Breads with added calcium
- Cereals with added calcium
- Dark-green, leafy vegetables

Tip: Choose low-fat milk, yogurt, ice cream, and cheese.

What about calcium and vitamin D pills (supplements)?
- Calcium and vitamin D pills (supplements) are helpful for treating weak bones.
- Choose a pill with 500 milligrams (mg) or less of calcium.
- Take a calcium carbonate pill like Oscal®, Tums®, or Caltrate®, with food.
- Take a calcium citrate pill like Citrical® without food.

How much calcium do I need each day?

<table>
<thead>
<tr>
<th>AGE (years)</th>
<th>MILLIGRAM (mg)/DAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 - 8</td>
<td>1,000 mg</td>
</tr>
<tr>
<td>9 - 18</td>
<td>1,300 mg</td>
</tr>
<tr>
<td>19 - 50</td>
<td>1,000 mg</td>
</tr>
<tr>
<td>Males 51 - 70</td>
<td>1,000 mg</td>
</tr>
<tr>
<td>Females 51 - 70</td>
<td>1,200 mg</td>
</tr>
<tr>
<td>&gt; 70 years old</td>
<td>1,200 mg</td>
</tr>
</tbody>
</table>

Source: Institute of Medicine, National Academy of Science, 2011.

Bottom Line
If you have weak bones:
- Eat foods with calcium
- Get vitamin D from foods and the sun
- Exercise
- Talk to your doctor

Any products, services or organizations that are mentioned, shown or indirectly implied in this publication do not imply endorsement by The University of Arizona.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, James A. Christenson, Director, Cooperative Extension, College of Agriculture & Life Sciences, The University of Arizona.

The University of Arizona is an equal opportunity, affirmative action institution. The University does not discriminate on the basis of race, color, religion, sex, national origin, age, disability, veteran status, or sexual orientation in its programs and activities.

The University of Arizona Cooperative Extension