

Bone up on Bone Health



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Think bone health is just for adults? Think again.

Bone is living, growing tissue, so building strong bones throughout childhood can help kids stay strong through adulthood, and help prevent osteoporosis.

What is osteoporosis?

Osteoporosis is a disease that causes bone loss and makes bones fragile and easily breakable. There is no cure, but developing a healthy, calcium-rich diet and weight-bearing exercise routine early in life can help avoid it.

Why should kids start thinking about osteoporosis so early?

Kids' bones begin to mature in the late teen years, so the sooner they start building a strong skeleton, the longer it will stay with them. We know that, on average, women have lower bone mass than men, which makes good dietary and exercise habits early in life very important for young girls and teens.



Physical Activity

Like muscles, bones get stronger when we use them. Weight-bearing exercise, like walking, running, hiking and dancing can help improve bone mineral density (strengthen your bones) and help reduce risk of fracture.

Getting outside

When kids exercise outside, they are more likely to have higher levels of vitamin D—another important nutrient for bone health.

What's the difference between weight-bearing exercise and other exercise?

Weight-bearing exercises have a higher impact on your bones—using dumbbells, fitness machines or even your own body weight as resistance qualify as weight-bearing exercises. Swimming and biking have a wide range of healthful benefits and are great activities for injury prevention and cardiovascular exercise, but have a lesser impact on strengthening bones.

How do weight-bearing exercises help bones stay strong?

Weight-bearing exercises use resistance, like weights, to help form new bone tissue, and as the surrounding muscles push and pull on the bone, both get stronger.



Weight-bearing exercises
like running and jumping rope
help build strong bones.

Bone-healthy diet

Not getting enough calcium during childhood can account for 5 to 10 percent lower bone mass and an increased risk for bone fractures later in life. Making sure your child's diet is rich in calcium, as well as magnesium, zinc and vitamin D, will set them up for success.

| Age | Milligrams (mg) of calcium each day |
|---------------------|-------------------------------------|
| Infants to 6 months | 200 |
| 6 to 12 months | 260 |
| 1 to 3 years | 700 |
| 4 to 8 years old | 1,000 |
| 9 to 18 years old | 1,300 |

Which foods are high in calcium?

Calcium is found in various foods, but most commonly in dairy products like milk, cheese and yogurt.

| Food | Portion | Mg of calcium |
|------------------------|---------|---------------|
| Fortified orange juice | 8 oz | 230 |
| Fortified cereal | 1 cup | 200 |
| 2% milk | 8 oz | 297 |
| Plain yogurt | 8 oz | 300 |
| Cheddar cheese | 1.5 oz | 306 |
| TOTAL | | 1,333 |

What about children who are lactose intolerant?

Lactose intolerance can be managed with medications to make dairy more easily digestible, but there are also lactose-free, calcium-rich alternatives available at most grocery stores. While most experts agree it's best to get calcium from food, sometimes a supplement can help children get their recommended amount of calcium.



Easy ways to add more calcium

- Add milk to cereal and oatmeal
- Eat fruit with yogurt for a calcium-rich dip
- Add cheese to sandwiches
- Include broccoli or beans with meals
- Make a fruit smoothie with milk or yogurt
- Pack string cheese with lunch
- Eat salads with dark green, leafy vegetables like lettuce, spinach, kale and broccoli
- Top salads and soups with shredded cheese
- Choose calcium-fortified orange juice

A glass of milk:

8 ounces

300 mgs of calcium

1/3 of the recommended daily calcium intake for a 4- to 8-year-old

For more information, contact Boston Children's Orthopedic Center
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