

Name: \_\_\_\_\_

## Skeletal System - Healthy Bones

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There are 206 bones in the adult body. The longest one is the thighbone, or femur, which makes up about 1/4 of your height. The smallest is the stirrup bone in the ear, which is only about 1/10 of an inch long. The bones are connected by 230 joints. All of these parts of the skeletal system keep you in good shape, active, and looking good -- as long as you keep them healthy.



Keeping bones healthy starts at birth. Babies are born with bones that are soft and flexible. Babies' bones have lots of cartilage, the flexible material that will later harden into bone material. In fact, babies have around 300 bones at first. Later, as the bones harden, some of these will fuse together until the adult number of 206 bones is reached.

Babies also have some spaces between the bones of the skull. This allows the brain to grow quickly during the first two years, but as the baby grows, these bones will gradually close together. These are some of the reasons why babies must be handled with special care. Babies' bones are not ready for the rough treatment that kids' and teens' bones receive when they run and play. A new baby needs to be handled gently, and his head always needs to be supported, until his muscles and bones grow stronger.

Kids and teens need to protect their bones in a different way. Their bones are strong, but bones are always breakable. When you're bike riding, wear your helmet to protect your skull. When you skate, wear the wrist, elbow, and knee pads that are recommended for the sport. Use the proper protective gear when you play contact sports like football, hockey, or soccer. And when you are in the car, buckle up your seatbelt.

Bones continue to grow until about age 25. After that, bones are fully hardened and will not grow any more. That's why it is important to take good care of the bones that you have. Eating the right nutrients and getting the right exercise will keep your bones in fine shape. However, people often do not get the right nutrition and exercise. That is why many adults have bones that are thinner and more porous than they should be. Porous means full of little holes, something like a sponge. Very thin, porous bones result in a medical condition called osteoporosis.

Getting the right nutrition for your bones means getting enough calcium. Boys and girls from the ages of 9 through 18 need around 1,300 mg of calcium daily. This is more than the recommended daily allowance for adults, because their bones are still growing. Milk provides lots of calcium. So do other dairy products like cheese and yogurt. Some other foods that contain calcium, too, are broccoli, collard greens, almonds, and sesame seeds. Some packaged foods are fortified with calcium. This means that calcium has been added to them. Orange juice and cereals are sometimes fortified with calcium.

The exercises that are especially good for your bones are weight-bearing activities. This doesn't mean that you need to lift weights! The weight can be the weight of your own body. Running and jumping are weight-bearing activities. Basketball, volleyball, jumping rope, dancing, and hiking are all good exercise for your bones.



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That's all it takes -- good food, good exercise, and strap on that helmet!

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### Questions

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- \_\_\_\_\_ 1. Babies have more bones than adults do.
  - A. true
  - B. false
- \_\_\_\_\_ 2. Kids and teens need more calcium than adults do.
  - A. true
  - B. false
- \_\_\_\_\_ 3. Babies must be handled gently because \_\_\_\_\_.
  - A. Their bones are not hard yet.
  - B. Their bones are hard and brittle.
  - C. They have spaces between the bones of their skulls.
  - D. both a and c
- \_\_\_\_\_ 4. \_\_\_\_\_ are recommended protective gear for skaters.
  - A. wrist pads
  - B. elbow pads
  - C. knee pads
  - D. all of the above
- \_\_\_\_\_ 5. To keep bones healthy, eat a diet rich in \_\_\_\_\_.
  - A. iron
  - B. phosphorus
  - C. calcium
  - D. nitrogen
- \_\_\_\_\_ 6. Which of the following provide lots of calcium?
  - A. yogurt
  - B. milk
  - C. collard greens
  - D. all of the above
- \_\_\_\_\_ 7. Foods that are fortified with calcium have \_\_\_\_\_.
  - A. a better form of calcium
  - B. calcium added to them
  - C. too much calcium
  - D. too little calcium
- \_\_\_\_\_ 8. Which of the following are good weight-bearing exercises?
  - A. sitting on the couch
  - B. ice skating
  - C. swimming
  - D. jumping rope