

Know Your Bones

Bone is one of the hardest substances in your body, second only to tooth enamel. All of your bones are put together in a framework, we call the skeleton. The skeleton supports all of the muscles in your body, giving you the ability to run, walk, twist and turn. And the skeleton protects the softer organs inside the body like the heart, lungs and brain.

Did you know that an amazing 206 bones work together to become your skeleton? The skull alone is made up of 28 separate bones, most of which are tightly linked together to protect the brain. And your hands and feet account for over half of the bones in your body. Their incredible flexibility is what lets you perform delicate movements like putting in a contact lens or drawing a picture.

All bones begin as cartilage, which is softer and more flexible than bone. As you grow the cartilage begins to harden, or ossify, and becomes fully developed around age 20. You can see the difference between bone and cartilage in an x-ray from a child or young adult because the bone hasn't fully matured.

Bones come in all shapes and sizes depending on specific functions and duties. Even though we call many bones by their common name, they all have scientific names, too.



Show Us Your Moves



Ball-and-socket joints in the hips and shoulders let your bones move in all directions.



Hinge joints in your elbows and fingers allow movement back and forth, but not side-to-side.



A **saddle joint**, like the one in your thumb, allows for side-to-side and front-to-back movement.



The **pivot joint** in your neck lets you rotate your head.

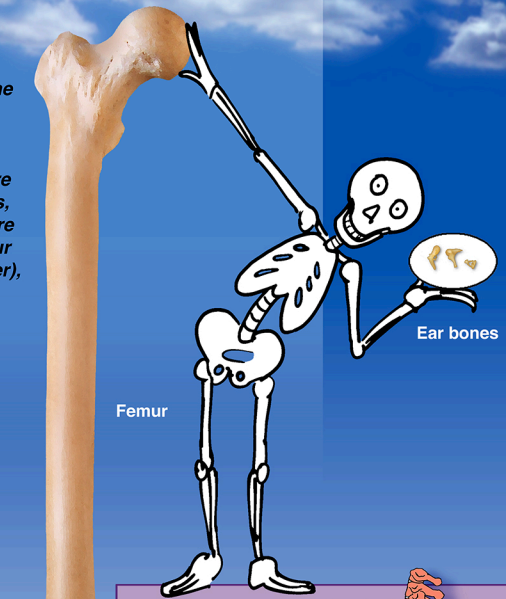


Orthopaedics for Kids

Great and Small

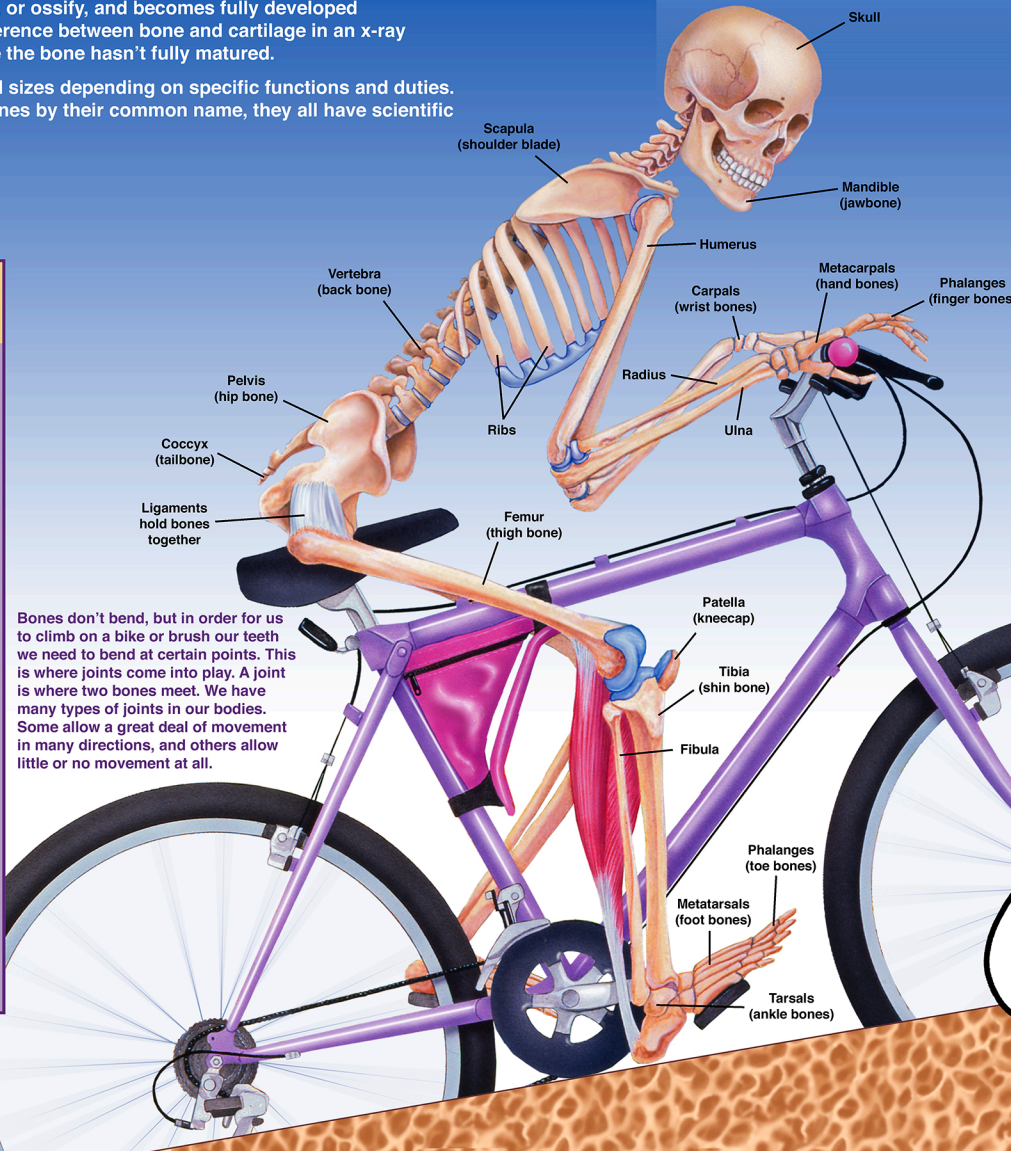
The longest bone in your body is the thigh bone, or femur. In an adult it measures around 17 or 18 inches long.

The smallest bones in your body are the auditory ossicles, the ear bones, and are necessary for hearing. There are 3 ear bones on each side of your head. They are the malleus (hammer), incus (anvil), and stapes (stirrup).



Femur

Ear bones



Bones don't bend, but in order for us to climb on a bike or brush our teeth we need to bend at certain points. This is where joints come into play. A joint is where two bones meet. We have many types of joints in our bodies. Some allow a great deal of movement in many directions, and others allow little or no movement at all.

Your spine, or backbone, has 24 vertebrae. They support your body and protect your spinal cord. Between each vertebra is a squishy disc that helps to cushion your body's weight as you walk.

Cervical (neck)

Thoracic (upper back)

Lumbar (lower back)

Sacrum (tail bone)

Hey Bonehead!

Do you know how many bones are in your skull?
Find the answer!

