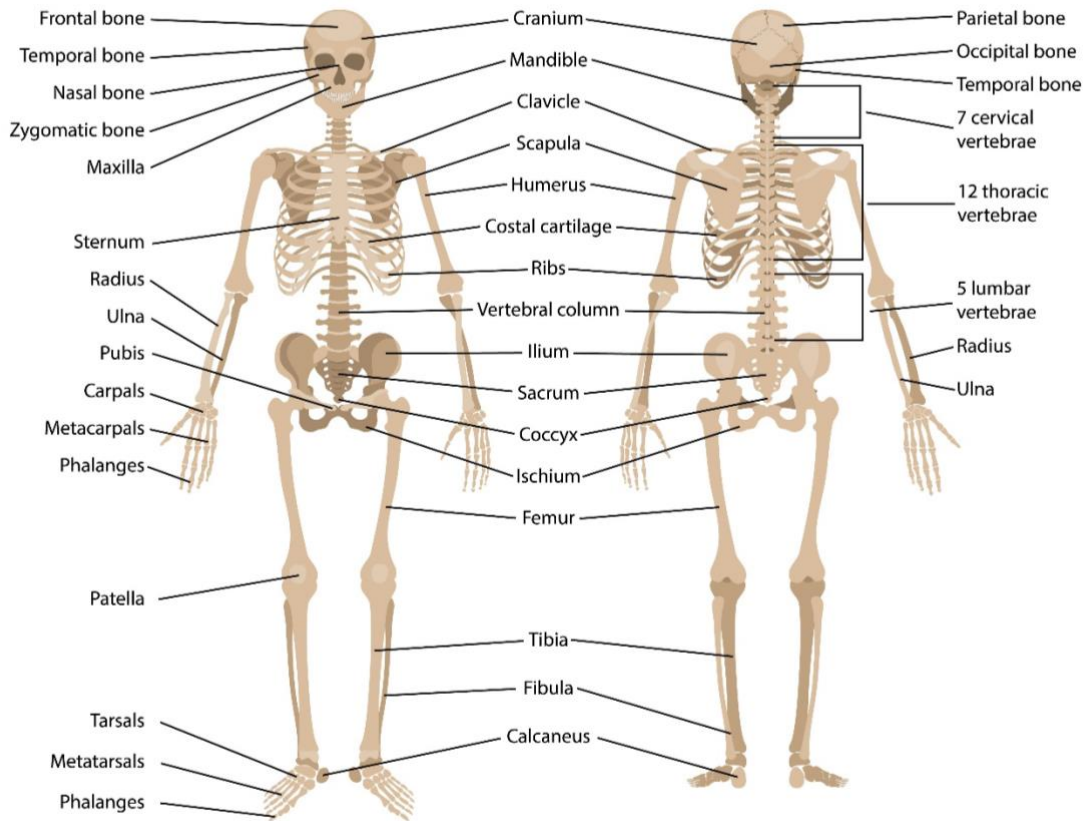


The human skeletal system



What is a skeleton?

A skeleton is the hard structure that protects the internal organs of a living thing. In mammals, which include humans, the skeleton is made of bones. All the bones, when they are joined together, make the "skeletal system" of a body. The skeletal system or "skeleton" is under the skin, the muscle and the tissue of the body. The skeleton supports the skin, muscle and tissue, and all the organs that are inside the body. The skeleton protects important internal organs like the brain, heart and lungs. If humans did not have a skeleton, the body would be flat as the skeleton gives the body its frame. A newborn baby has 300 bones, but as it grows its bones join and an adult has 206 bones.

Parts of the human body

The important parts of a human body are the head, the spine, the chest, the abdomen, the arms and hands, and the legs and feet.

The head

The head bones all together are called the **skull**.

- The skull is made of a group of curved bones fitted together like a ball, which protects the brain, the eyes and the inside parts of the ears. The bones of this part of the head, together, are called the **cranium**.

- The skull has a top jaw, and a bottom jaw, with teeth in them. The jaws are called the "upper" and "lower" **mandibles**. The "lower mandible" is moved by strong muscles so that the teeth can bite and chew food.
- There are several other small bones which make up the face. There are also several small bones in the front and side of the neck.
- The smallest bones in the body are three tiny bones inside the ear, which vibrate to help a person hear sounds.

The spine

The spine supports the head, the chest and the structure that carries the arms. It is made of small bones called **vertebrae**. The spine, all together, is called the **spinal column**. It is not straight, but has curves that help to support the body, and help the person to move and bend. One bone is a **vertebra**. More than one are **vertebrae**. The vertebrae have different names, depending on the part of the body they are joined to.

- The neck vertebrae are called **cervical vertebrae**.
- The chest vertebrae are called **thoracic vertebrae**.
- The vertebrae of the lower back are called the **lumbar vertebrae**.
- The next vertebrae are joined together in a triangular shape called the **sacrum**. The hip bones are attached to the sacrum and support it.
- At the bottom of the sacrum are some little tailbones. They are called the **coccyx**. On many animals the "coccyxal vertebrae" are long, making a tail that the animal can move, but on humans, apes and some other creatures, they are very short.

The pelvis

This part of the body is made of the **sacrum** and the two **pelvic bones** which are joined to it on either side. The pelvic bones are carried by the leg bones, and they support the spinal column. Each pelvic bone has a strong structure for the leg bone to fit into, so that a person can stand, walk, run, and jump. Each pelvic bone spreads into a large flat plate which supports the person's internal organs. The pelvis of a woman spreads into a wider shape than a man's, so that when the woman is pregnant, the baby is supported by the pelvis, until it is ready to be born. At the bottom of the pelvis is a large opening, big enough for a baby to pass through.

The chest

The chest is called the **thorax**, and the vertebrae that are part of it are the **thoracic vertebrae**. The thorax is made up of long flat curved bones called **ribs**. At the back, the ribs are joined to the vertebrae. At the front, most of the ribs are joined to the **sternum**, which is often called the breastbone. The thorax protects the heart, lungs and stomach.

At the top of the thorax is the **shoulder girdle**. This is made of two thin horizontal bones at the front, joined to the sternum. These two bones are called the **clavicles** or collar bones. At the back of the thorax are two flat triangular-shaped bones called the **scapulae**, or shoulder blades.

The arms

- The upper bone is the **humerus**, so when people bang their elbow, they often say that they bumped their "funny bone".
- The bone that sticks out at the elbow and runs down the outside of the arm is the **ulna**.
- The bone that is on the thumb-side is called the **radius**. Near the elbow, it is joined to the ulna in a way that allows it to rotate. The radius and the ulna can twist around each other, allowing a person to turn their hand.
- The small bones of the wrist are called **carpals**, and the bones inside the hand are called **metacarpals**.
- The finger bones are the **phalanges**.

The legs

- The upper bone of the leg, which is the longest bone in the body, is called the **femur**.
- The bone at the back of the leg is called the **tibia**, or shin bone. It makes the inside ankle bone.
- The thinner bone at the side of the leg is called the **fibula**. It makes the outside ankle bone.
- The small bones that join the foot to the leg bones and allow it to move are called the **tarsals**. The bones inside the foot are the **metatarsals**.
- The toe bones are called **phalanges**, like the finger bones.
- The leg has another bone. At the front of the joint where the tibia meets the femur is a small round bone to protect the joint. It is called the **patella**.