

# Skeleton

by Sophia



## WHAT'S COVERED

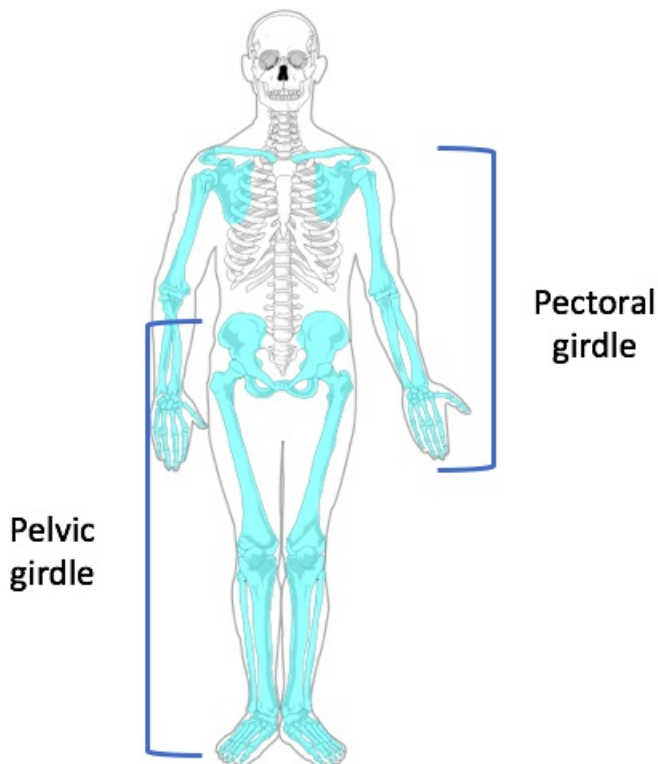
In this lesson, you will learn about the two divisions of the skeletal system. Specifically, this lesson will cover:

## 1. Appendicular Skeleton

The **appendicular skeleton** includes the bones of the limbs, hips, and shoulders. Basically, any hanging body part is part of your appendicular skeleton.

The appendicular skeleton is broken down into two sections as well:

- **Pectoral Girdle:** Includes the bones of the upper body that are part of the appendicular skeleton, such as the scapulae, clavicles, and upper limbs.
- **Pelvic Girdle:** Includes the bones of the lower body that hang, such as the pelvis and lower limbs.



## TERMS TO KNOW

### Appendicular Skeleton

The division of the skeletal system that includes the bones of the hips, shoulders, and the limbs.

### Pelvic Girdle

The bones associated with the lower part of the appendicular skeleton including the pelvis and legs.

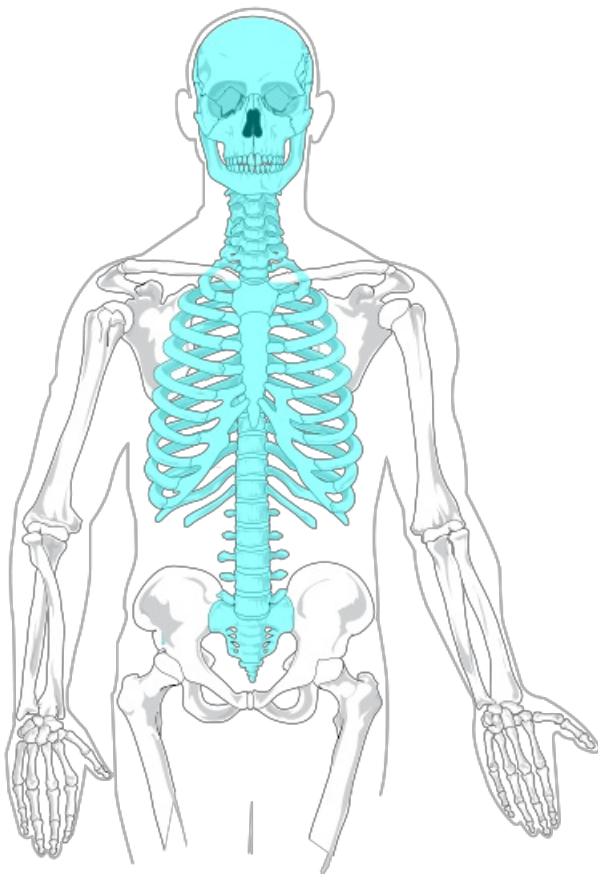
### Pectoral Girdle

The bones associated with the upper part of the appendicular skeleton including the scapulas, clavicles, and arms.

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## 2. Axial Skeleton

The other division of the skeletal system is the **axial skeleton**. The axial skeleton includes the bones of the skeleton that compose your vertical axis. If you think of a person standing up, the vertical axis is the up and down axis. The bones that compose that axis are the vertebral column, skull, ribs, and sternum.



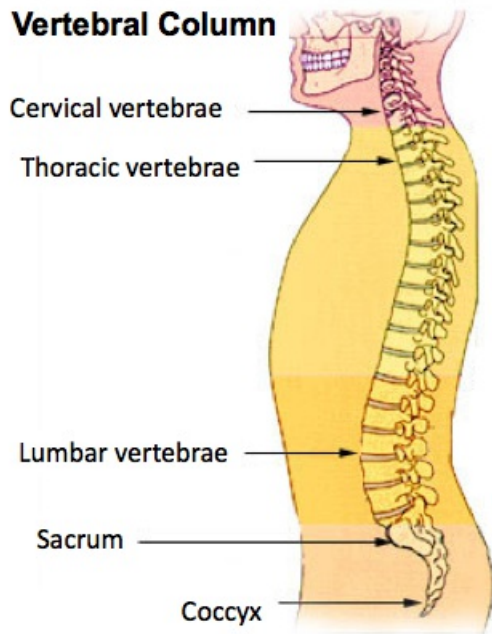
### TERM TO KNOW

#### Axial Skeleton

The division of the skeletal system that composes the body's vertical axis and includes the skull, backbone, ribs, and sternum.

### 2a. Vertebral Column

To look more in-depth at the parts of the axial skeleton, let's begin with the **vertebral column**.



This is your backbone, and it is made up of 33 individual bones called vertebra (the plural is vertebrae). These are broken up into a few different segments:

- *Cervical vertebrae* are the first seven bones of the spine; these are the bones that make up the neck.
- *Thoracic vertebrae* are the 12 bones that make up the majority of the spine.
- *Lumbar vertebrae* are the five vertebrae that make up the lower back.
- *Sacrum* is made up of five bones all fused together.
- *Coccyx* is made up of four bones all fused together.

In between each of the bones of the spine, there are disks made of **cartilage**; these form a cartilaginous joint in between each of the bones. That cartilage helps provide a cushion between the bones to avoid friction when the bones rub together. The main purpose of the spine is to give the body structure and support and to protect the spinal cord.



#### TERMS TO KNOW

##### **Vertebral Column**

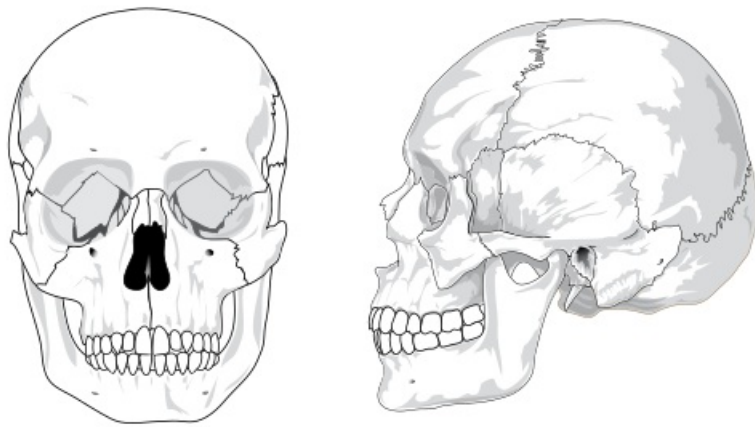
A part of the axial skeleton that protects the spinal cord and gives shape and structure to the body.

##### **Cartilage**

A tough, flexible, whitish connective tissue (also known as "gristle"); Cartilage gives shape to the ear and nose tip, and provides cushion between many joints.

## **2b. Skull**

The **skull** is another type of bone found in the axial skeleton. The skull is actually made up of over two dozen bones; all of these bones are fused together by sutures. Sutures are a type of joint that forms between the bones; they do not generally allow for movement, but rather hold the bones of the skull together. The purpose of the bones in the skull is both to protect the brain and to shape the face.



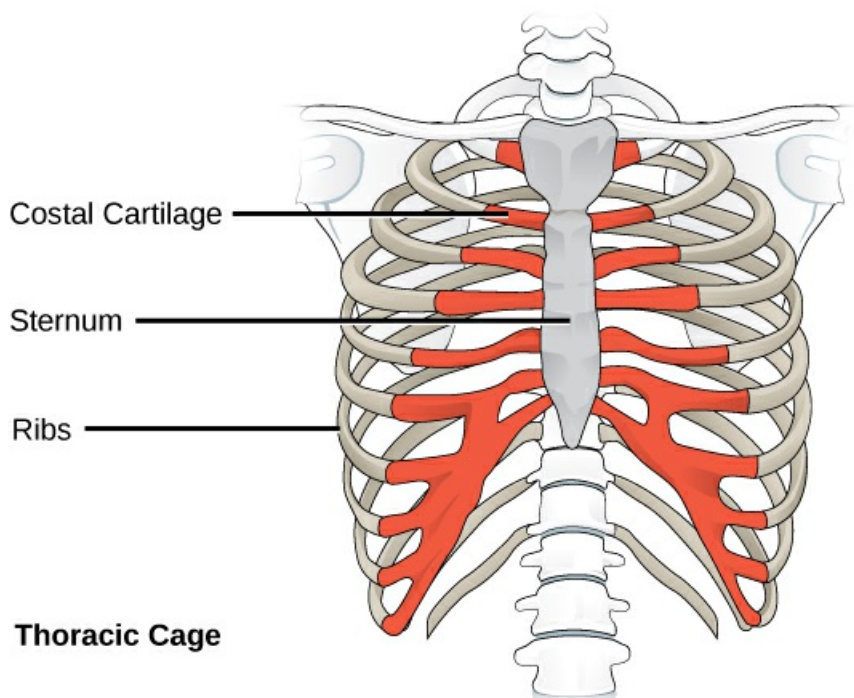
#### TERM TO KNOW

##### Skull

A part of the axial skeleton that acts to protect the brain.

## 2c. Ribs and Sternum

Finally, the axial skeleton also includes the ribs and the sternum. Their purpose is to protect the internal organs. You actually have 12 pairs of **ribs** that all attach to the spine, forming a cage to protect your internal organs. The ribs are all fused to the spine, but some attach to the **sternum** in the front.



#### TERMS TO KNOW

##### Ribs

Bones of the axial skeleton that attach to the sternum and backbone to compose a "cage" that protects internal organs.

##### Sternum

A bone of the axial skeleton that serves as an attachment point on the front of the body for the ribs.



## SUMMARY

The skeleton is broken down into two main sections: The appendicular skeleton and the axial skeleton. The appendicular skeleton comprises the bones of the limbs and is broken down further into the pectoral girdle (limbs of the upper body) and the pelvic girdle (limbs of the lower body). The axial skeleton includes the bones that make up the body's vertical axis, which are the skull, vertebral column, ribs, and sternum. Keep up the learning and have a great day!

Source: THIS WORK IS ADAPTED FROM SOPHIA AUTHOR AMANDA SODERLIND



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## TERMS TO KNOW

### Appendicular Skeleton

The division of the skeletal system that includes the bones of the hips, shoulders, and the limbs.

### Axial Skeleton

The division of the skeletal system that composes the body's vertical axis and includes the skull, backbone, ribs, and sternum.

### Cartilage

A tough, flexible, whitish connective tissue (also known as "gristle"); gives shape to the ear and nose tip; provides cushion between many joints.

### Skull

A part of the axial skeleton that acts to protect the brain.

### Sternum

A bone of the axial skeleton that serves as an attachment point on the front of the body for the ribs.

### Pectoral Girdle

The bones associated with the upper part of the appendicular skeleton including the scapulas, clavicles, and arms.

### Pelvic Girdle

The bones associated with the lower part of the appendicular skeleton including the pelvis and legs.

**Ribs**

Bones of the axial skeleton that attach to the sternum and backbone to compose a "cage" that protects internal organs.

**Vertebral Column**

A part of the axial skeleton that protects the spinal cord and gives shape and structure to the body.