

## Chapter 7

### Skeletal System

#### **Jobs of Bone**

Blood formed in bone

Body's supply of calcium

Give body shape

Protect internal organs

Place for the muscle to attach

Bones have living and nonliving parts

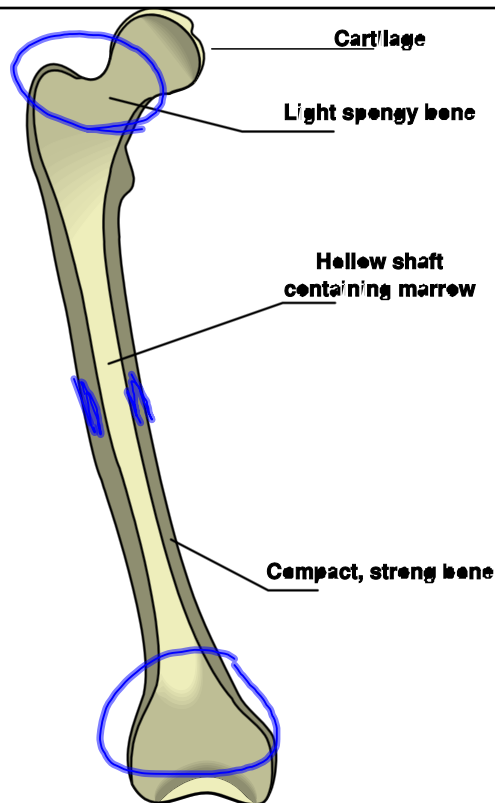
Outside of the bone is covered by a thin, living membrane called the periosteum.

It has blood vessels that carry food and Oxygen

Spongy Bone-

looks like a sponge, found at ends of bone, but it is not soft

Compact bone-thick outer layer  
made up of calcium and phosphorus,  
contains living material such as blood  
vessels, bone cells, and nerves, also  
elastic fibers



Bone Marrow- gel-like substance in hollow cavity and space in spongy bone. It is red or yellow.

Yellow is found in parts of long bone and mostly fat.

Red is found in spongy bone, new blood cells are made in the red bone marrow.

## Bone Strength

Healthy bones are hard and flexible  
Lightweight enough to move

What is the best shape for a bone?

This is because of the arrangement of spongy bone with Spaces keeps it light weight.

Ends of the bone also have shock absorbers like tennis shoes



There are some parts of the skeletal system that are not bone.

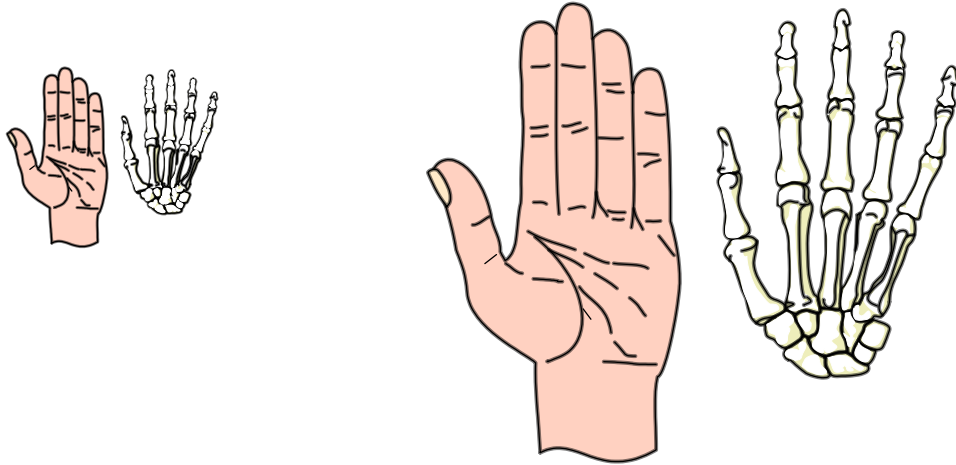
Touch the end of your nose or your ear lobe.

These are parts of your skeletal, but not made of bone. They are made of cartilage.



Before birth all your skeleton was  
cartilage

During development it was  
replaced with bone.

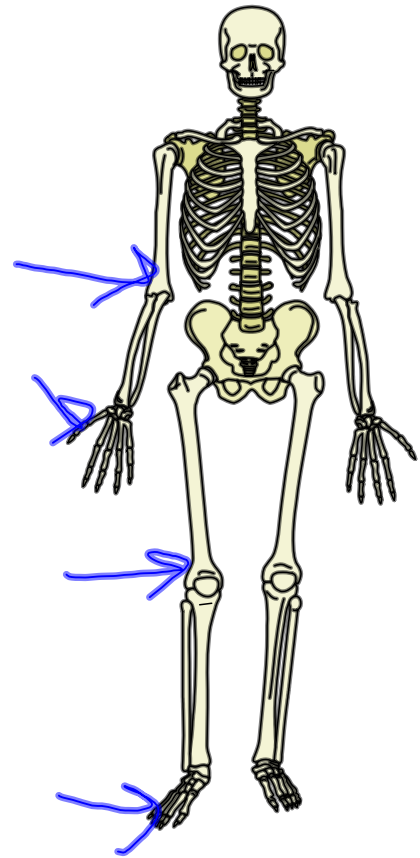


## Joints

Joints are places where  
bones meet or are joined  
together.

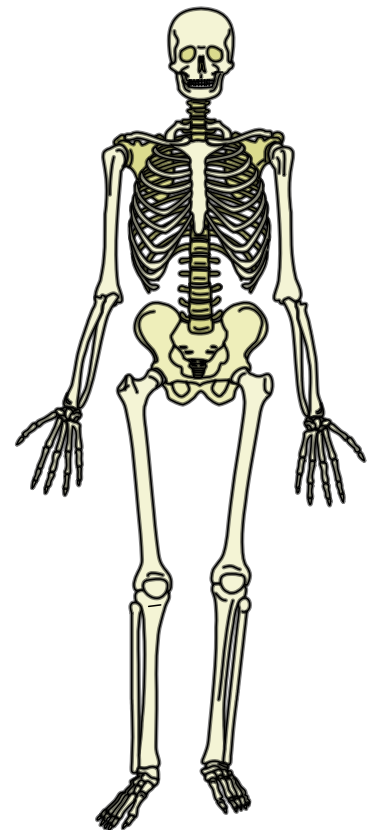
Hinge Joints- like door hinge.

Example fingers, toes, elbows, knees



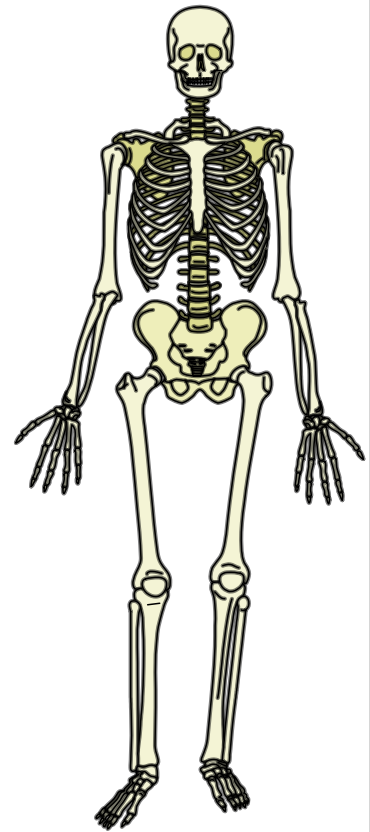
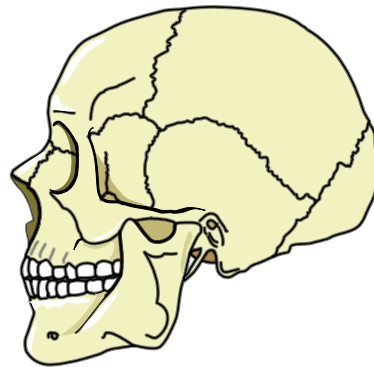
Pivot Joints-allow movement of rotation or turning on a axis.

Examples- Arm



Immovable Joints-  
non range of  
movement.

Example-bones of  
the skull. They do  
not move.



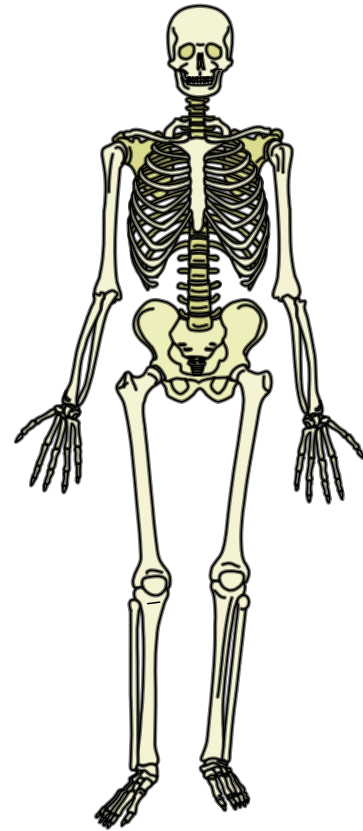
Gliding Joints-  
bones are  
separated by disks  
of cartilage.

Examples-  
vertebrae



Ball and Socket Joints-  
greatest range of  
movement.

Examples hip, shoulder



Ligaments- hold bones together

Cartilage- reduces the bone on bone  
\_\_\_\_\_ and cushions bones against  
\_\_\_\_\_