

The Skeletal System

- The skeletal system includes all bones and cartilage.
- Cartilage includes:
 - TENDONS - connect muscles to bone.
 - LIGAMENTS - connect bones to bones.
- *Achilles tendon is the strongest cartilage in the body.
- Bones are Connective Tissue.
- There are 206 bones in the body (adult!)
Babies have > 270 (this is because many of the bones are still forming, and the cartilage has not hardened yet.) EX: soft spot on the skull).
- Longest bone is femur (thigh bone).
Smallest bones in body are in the ear (hammer, anvil, stirrup → like dominoes that vibrate from sound waves).

Functions of Bones

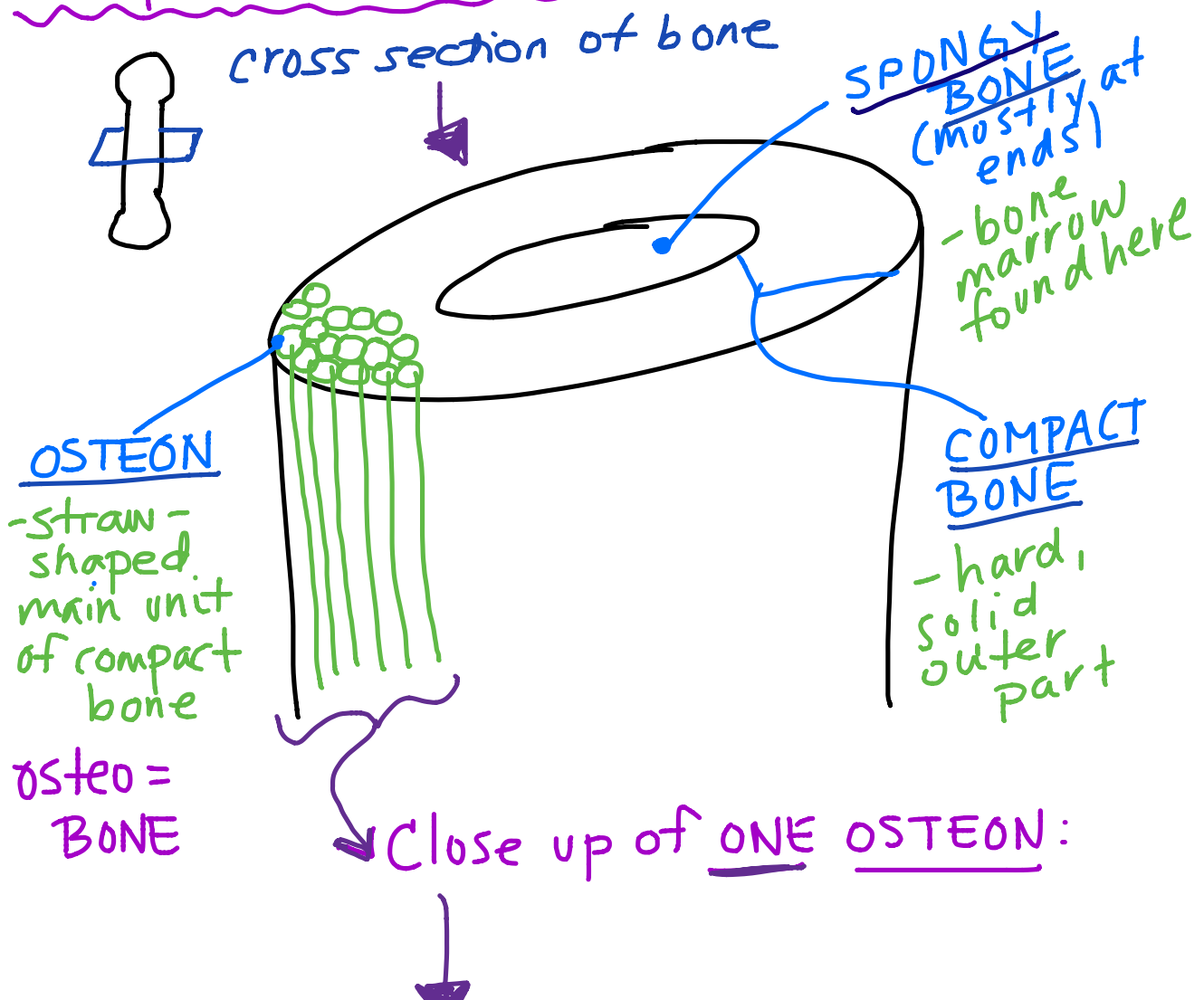
1. SUPPORT - hold us up!
2. STORAGE - bones store calcium (calcium is constantly "stolen" from bones to help muscles + nerves function),

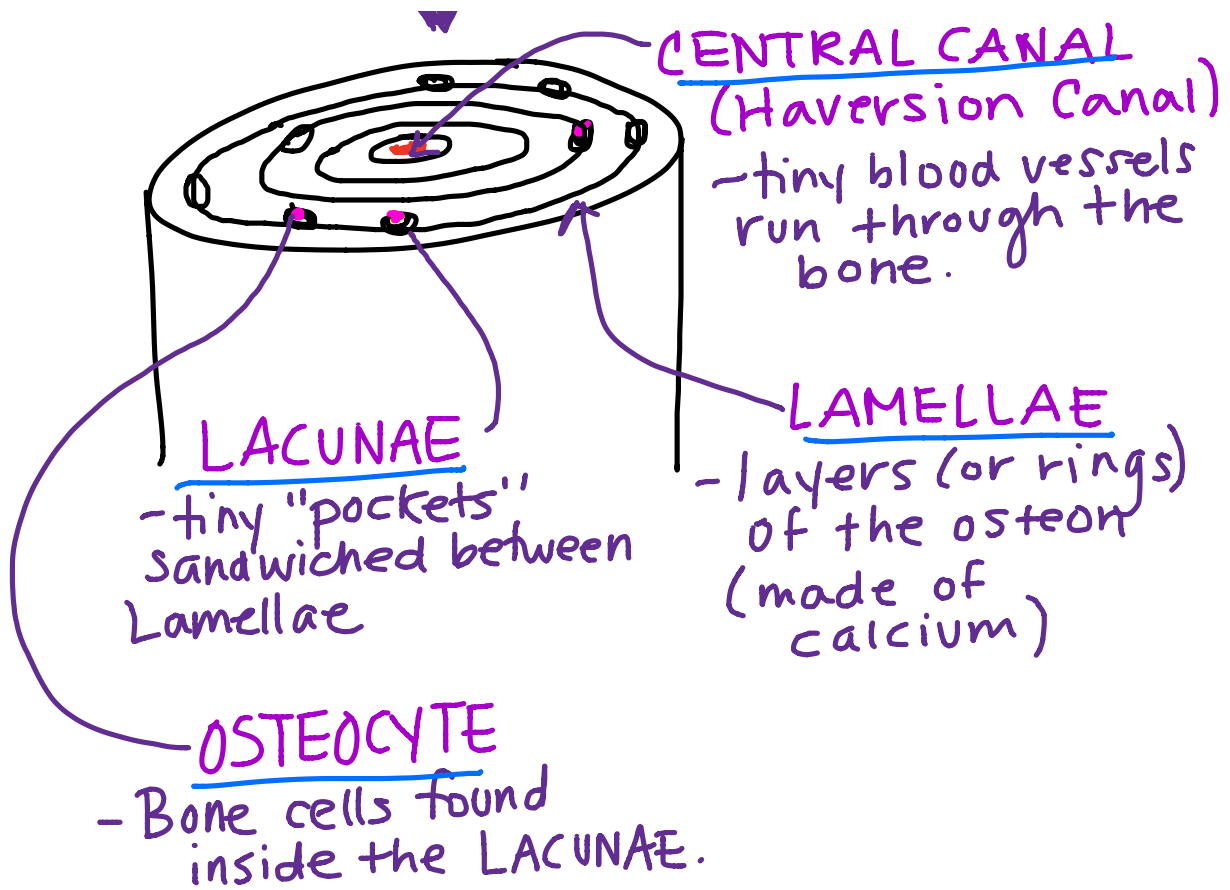
Also storage of RED BONE MARROW, and YELLOW MARROW (fat).

3. PRODUCTION of RED BLOOD CELLS
- this is done in the Red Marrow.

4. PROTECTION - skull protects the brain, ribcage protects the heart + lungs, vertebral column protects spinal cord.

Composition of Bone





- Bone is made of almost all CALCIUM.
The average human has 2-4 lbs of calcium in their body!
- A lack of calcium produces tiny holes in bones, making them very brittle, and they break + collapse easier → OSTEOPOROSIS.