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List in order the levels of human body organization.

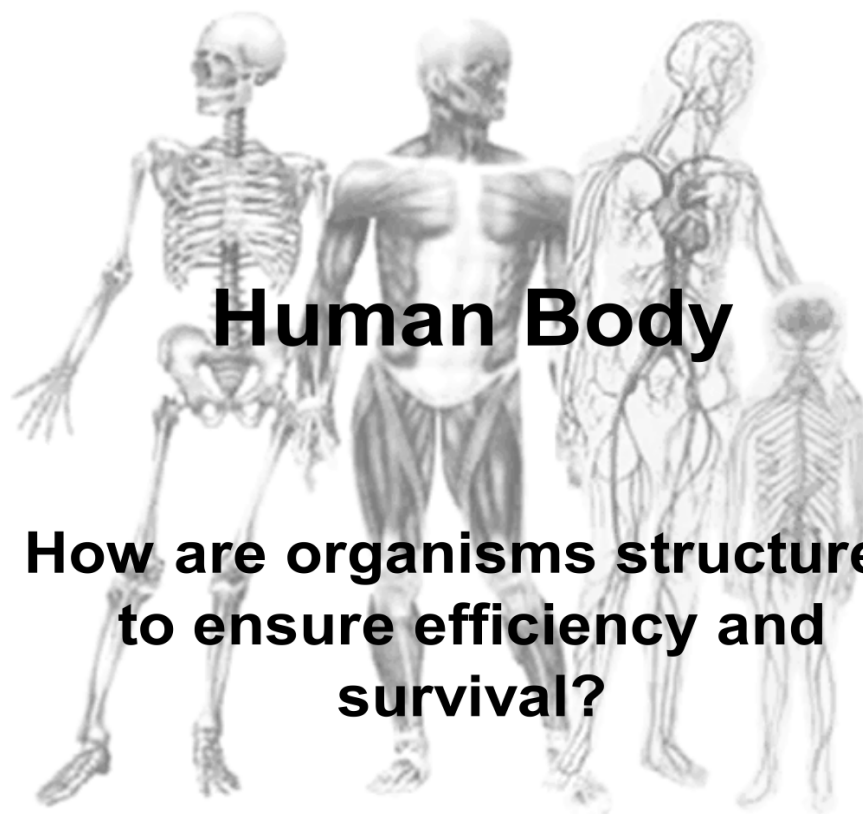
Cells

Tissues

Organs

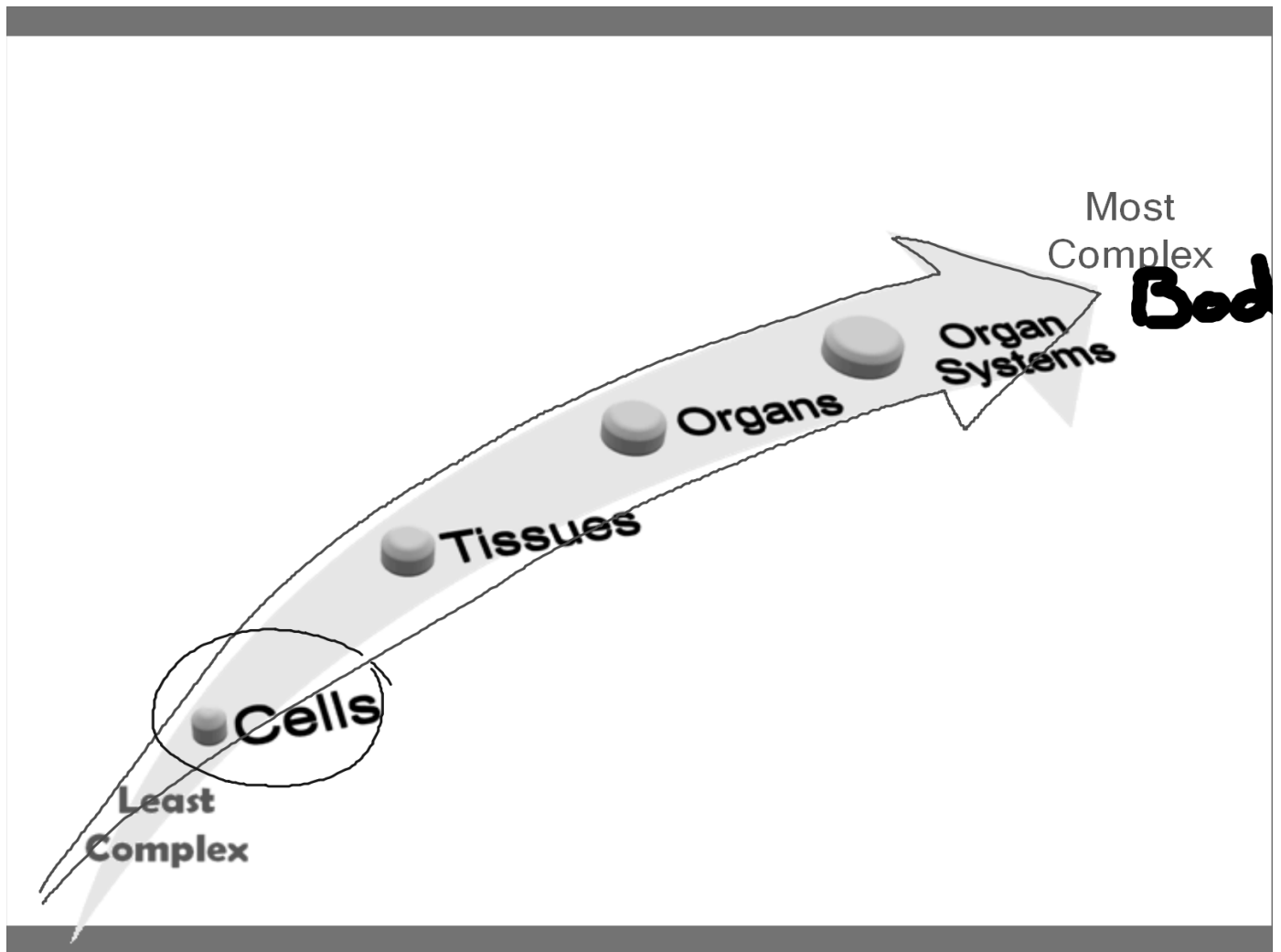
organ systems

Human Body



Human Body

**How are organisms structured
to ensure efficiency and
survival?**



Levels of Organization

- Cells

- the basic units and structures of living things.

- Tissues

- a group of similar cells that work together.

- Organs

- two or more tissues that work together to
– perform a specific function.

- Organ Systems

- organs that work together to perform specific functions
–help maintain homeostasis within the organism.

-Body

What we know

Cells form tissues

The tongue is the strongest muscle

The body is made up of cells

Questions

What color is our blood?

Why ~~does~~ our fingers wrinkle

How do you get fingerprints

How can chemicals effect the skin

Why does your hand get dry skin

how does skin form to cover the whole body

Why does your hand fall asleep

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**What is the difference between
a tissue and organ?**

Tissues are made of similar cells
Organs are made of different tissues.

What We Know

The Femur is the longest bone

Questions

How is Blood made

What is marrow/does Red turn to
Yellow

Is cracking your knuckles bad

Why is there different Blood type

How does bones Repair themselves

How does our brain help us move

Is the back bone one bone

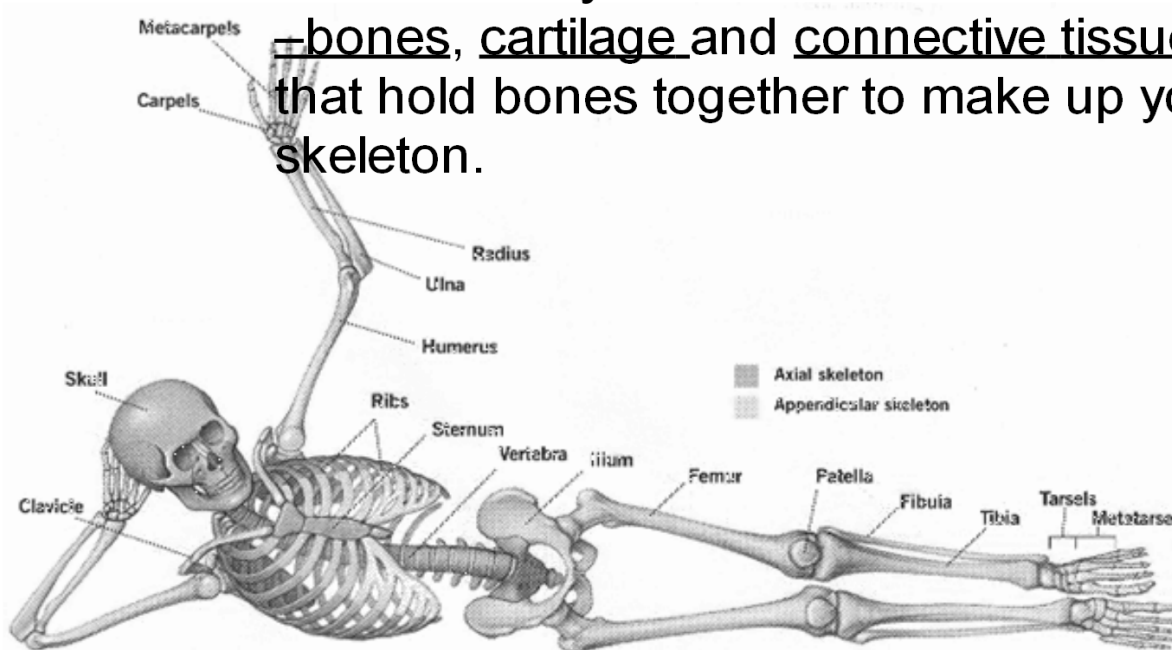
Is there liquid in the bones

What is the white part on a nail

Describe the Basic Functions of the Skeletal System

•Skeletal System

bones, cartilage and connective tissue that hold bones together to make up your skeleton.

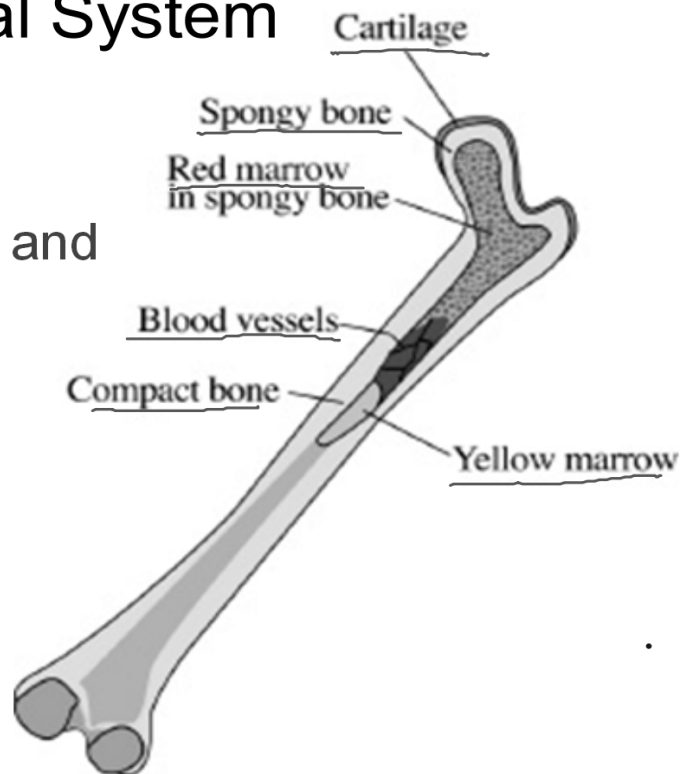


Describe the Basic Functions of the Skeletal System

- **Bone**

—an organ made up of connective tissue, minerals and osteoblasts

Osteoblasts are cells that deposit minerals



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What are the 3 main parts of the bone?

Describe the Basic Functions of the Skeletal System

•3 Parts of Bone

–Compact bone

- Compact dense and hard part of the bone, typically the outer layer

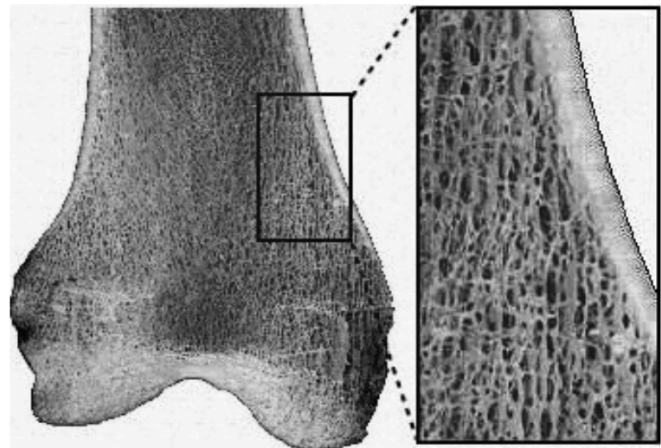
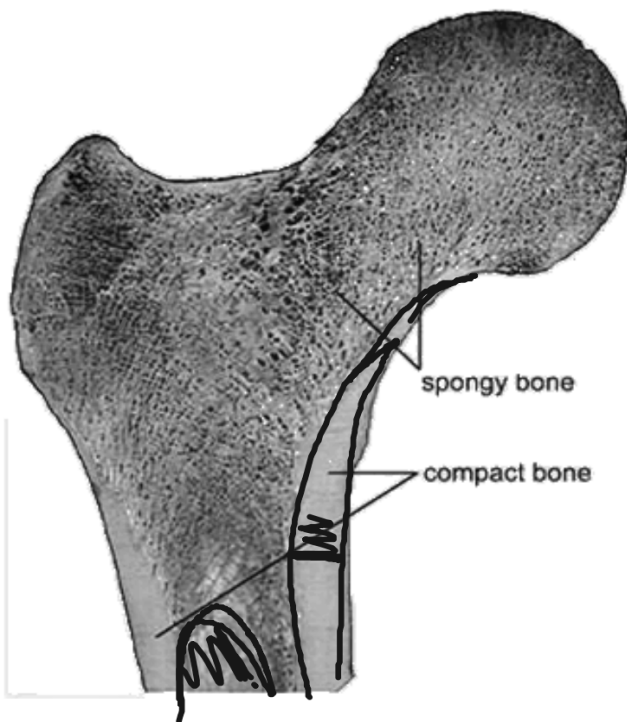
–Spongy bone

- Contains open spaces (like a sponge) and provides strength and support for the bone (like your IT bridges)

–Marrow

- Red marrow produces blood cells
- Yellow marrow stores fat.

Describe the Basic Functions of the Skeletal System



Describe the Basic Functions of the Skeletal System

- Much of the bone in your skeleton begins as cartilage.
- Cartilage
– a type of connective tissue that is dense and flexible.
- Osteoblasts deposit minerals in the cartilage changing it to bone.

Describe the Basic Functions of the Skeletal System



Describe the Basic Functions of the Skeletal System

•Joint

–A place where 2 or more bones meet.

Fixed Joint – no movement such as in the skull

Movable Joint – there is some sort of movement

•Ligament

–Strong bands of connective tissue that hold bone to bone at a movable joint

•Cartilage

–Covers the ends of bones at a joint to act as a cushion

Describe the Basic Functions of the Skeletal System

• Four Functions of the Skeletal System

• Protection

–Protects heart, lungs, brain, and spinal cord

Ribs *skull* *vertebrae*



• Storage

–Stores minerals for use by the muscles and nerves

–Stores fat for energy



Describe the Basic Functions of the Skeletal System

Four Functions of the Skeletal System

•Movement

–Muscles pull on bones to produce movement at a joint



•Blood cell formation

–Some bones have red marrow which makes blood cells



Describe the Basic Functions of the Skeletal System

- Diseases of the skeleton

- Osteoporosis – causes bone to become less dense

- Ostio refers to bone

- porous refers to having holes

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- Arthritis – causes joints to stiffen and swell

- Arthro refers to joint

- itis is an inflammation