



No  nes about it!

Samantha Sellers and Jordan Sturgill

High School → College (Bachelor's) → Graduate School

Ph.D

Doctorate of Philosophy



4-6 years after Bachelor's
Advances scientific/medical knowledge

M.D.

Doctorate of Medicine



4 years after Bachelor's + residency

Uses existing knowledge to medically treat people

P.A.

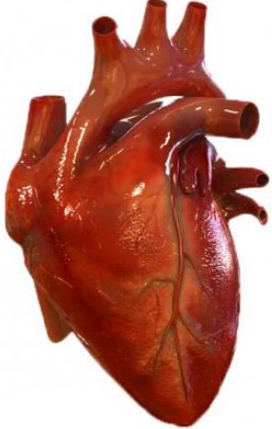
Masters in PA studies



2 years after Bachelor's

I 
Art

&

I 
Science

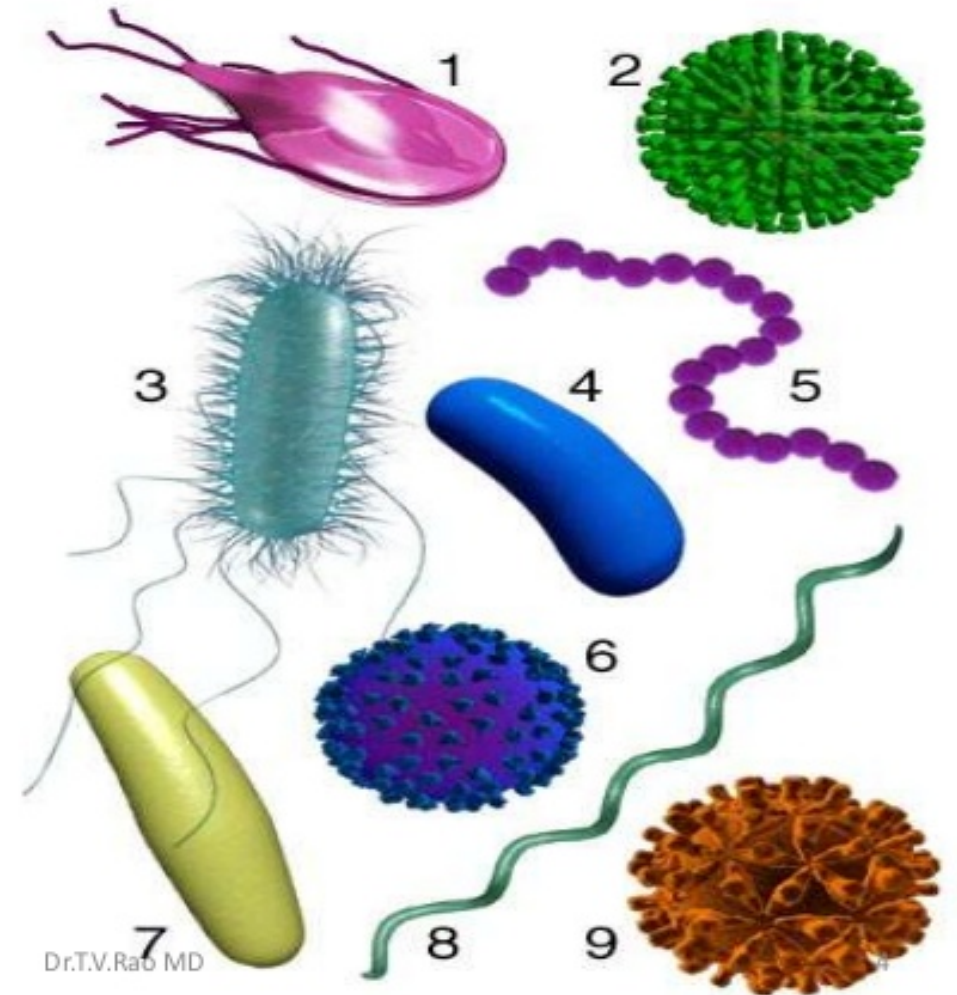


The background of the image is a dark green field filled with numerous rod-shaped, green fluorescent bacteria. The bacteria are scattered throughout the frame, with some in sharp focus and others blurred in the background, creating a sense of depth. A horizontal black band runs across the middle of the image, containing the word "MICROBIOLOGY" in white, bold, sans-serif capital letters.

MICROBIOLOGY

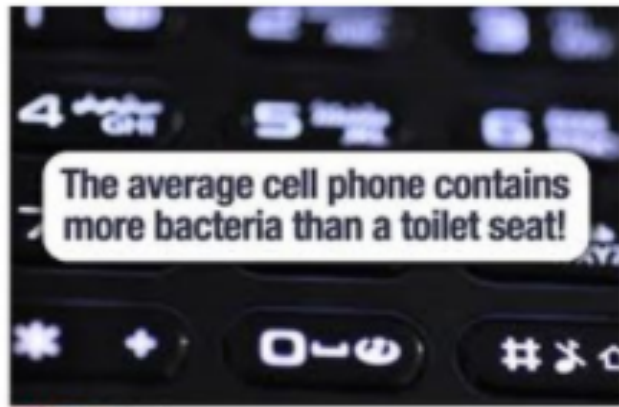
What is Microbiology?

- Branch of science that studies
 - Bacteria
 - Viruses
 - Protists
 - Fungi



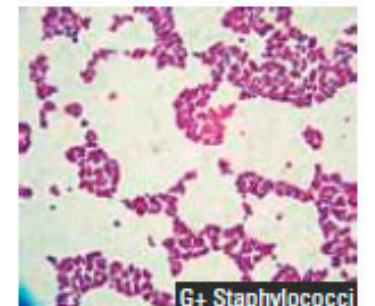
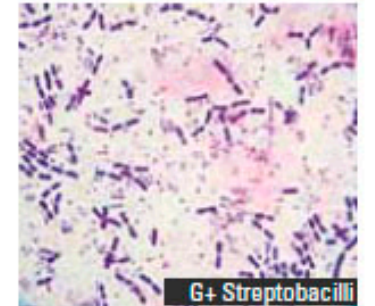
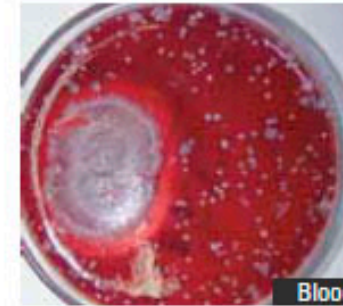
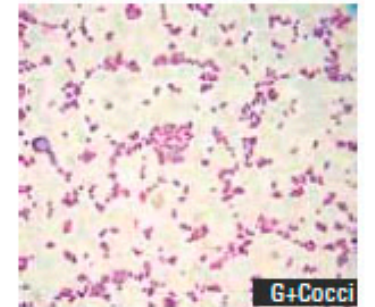
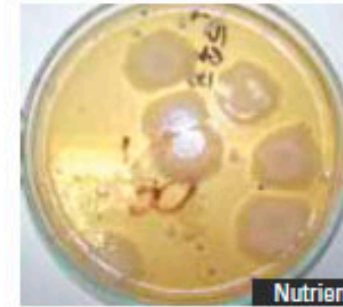
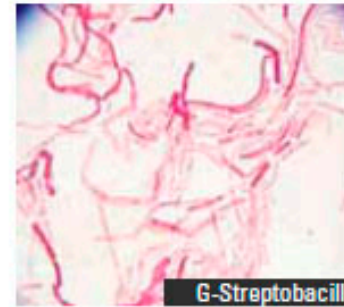
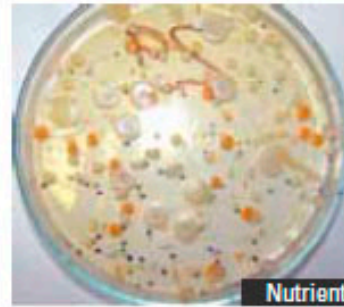
Fun Facts about Bacteria

- There are 10 times more bacterial cells living on and in you, than your own body cells.

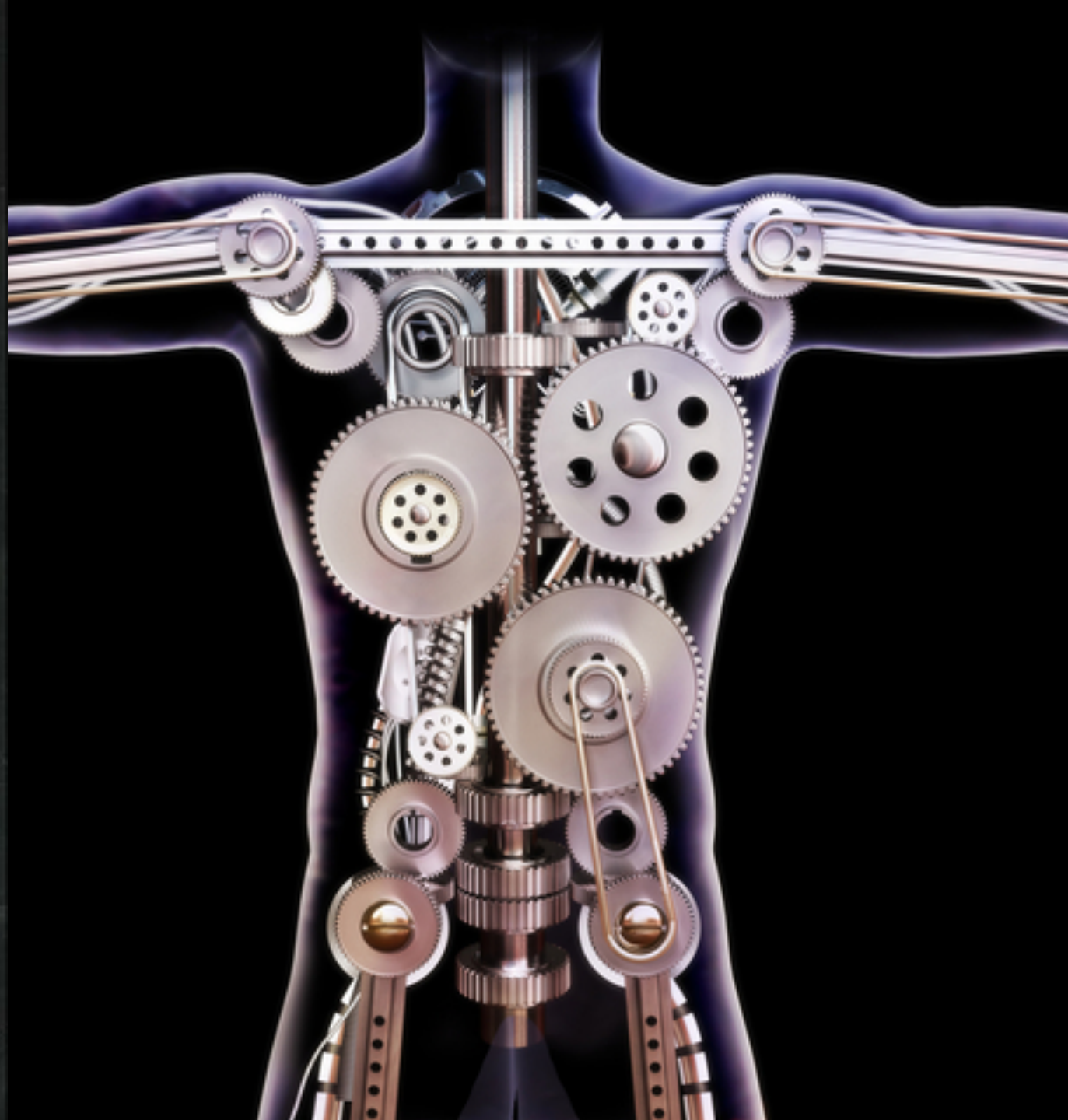


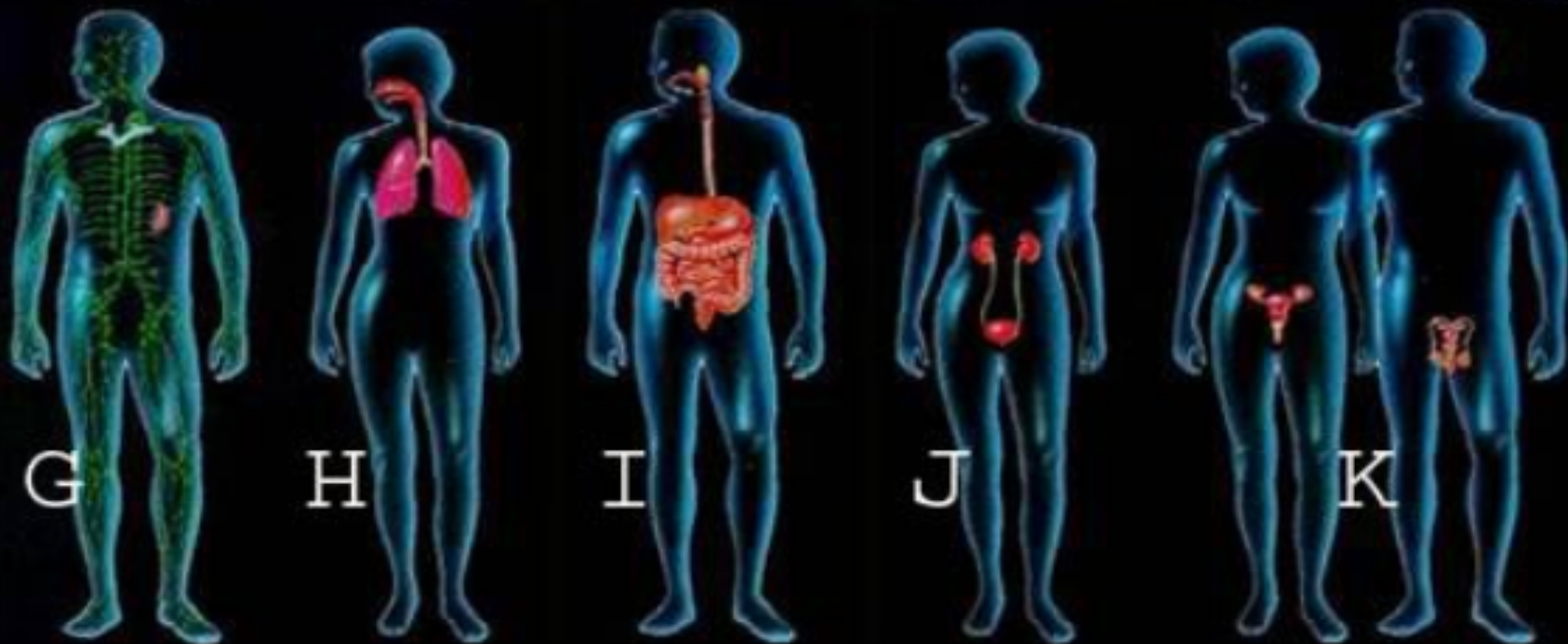
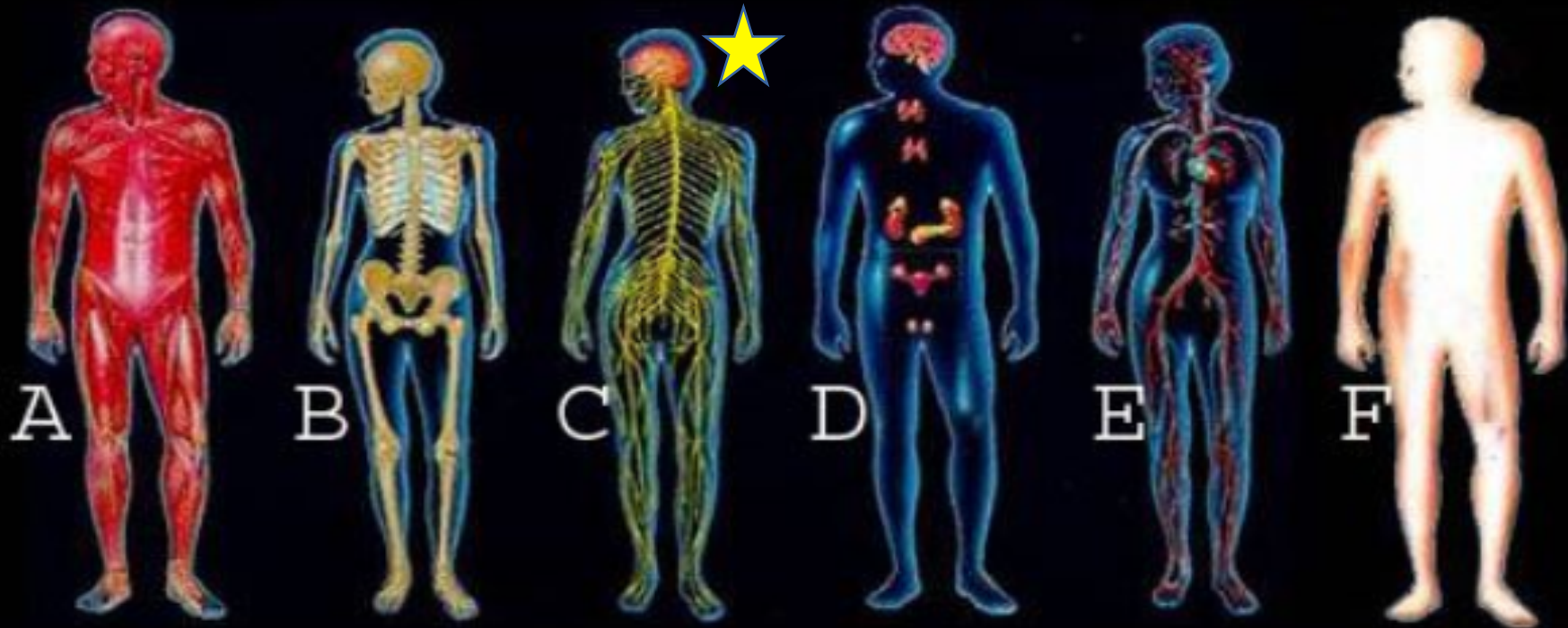
Johnson & Johnson

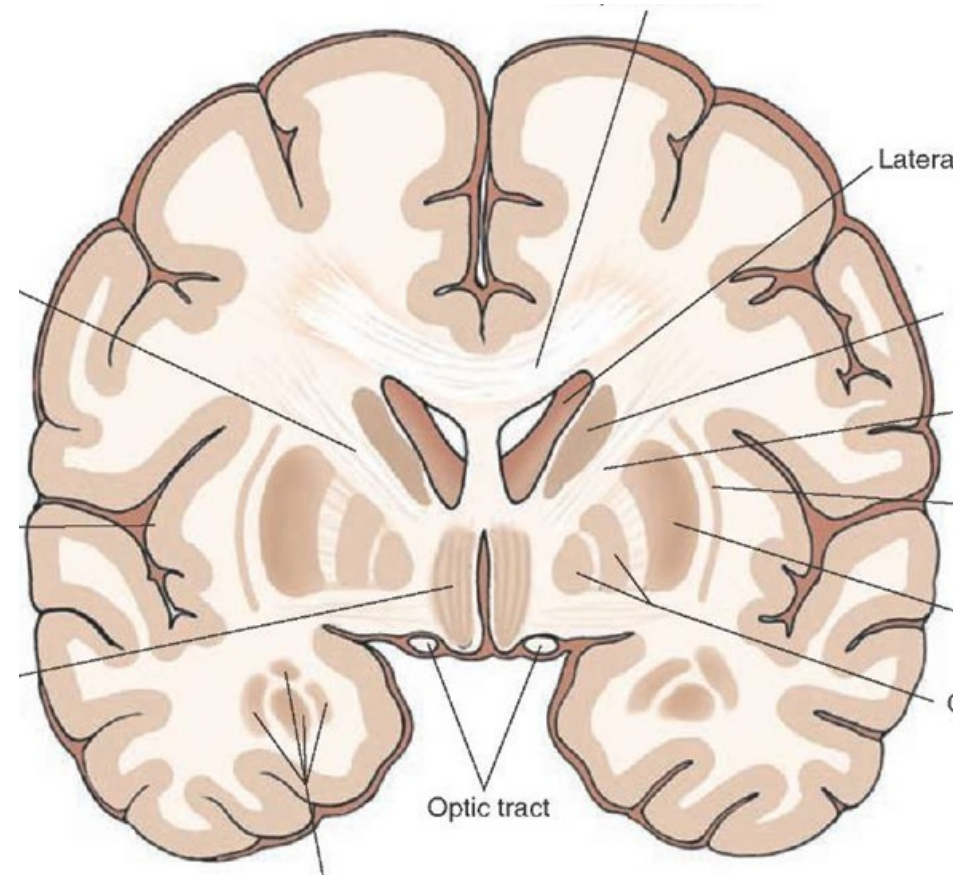
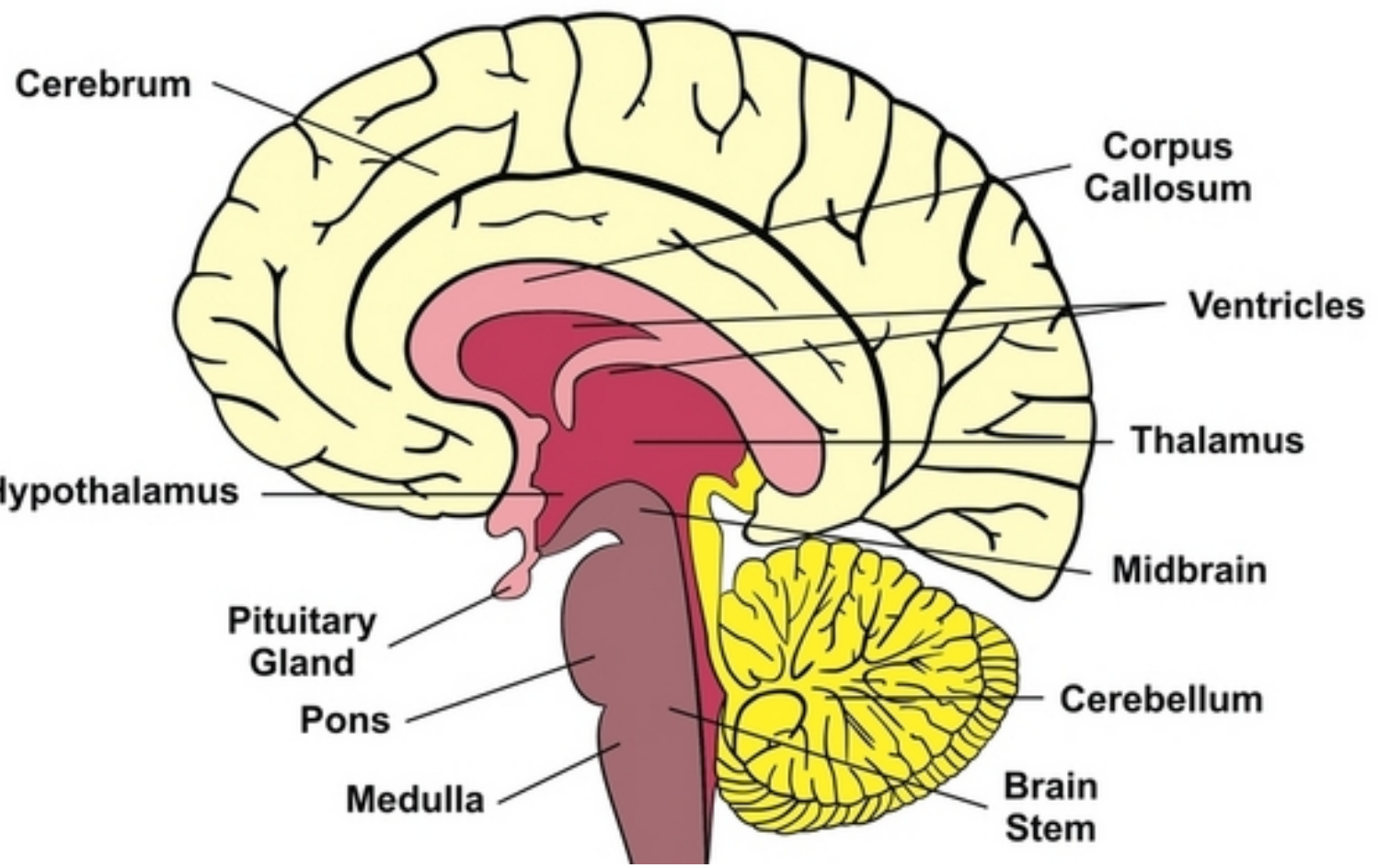
- Bachelor's in Microbiology
- Worked as a Microbiologist
- Along side
 - Chemists
 - Biologists
 - Statisticians

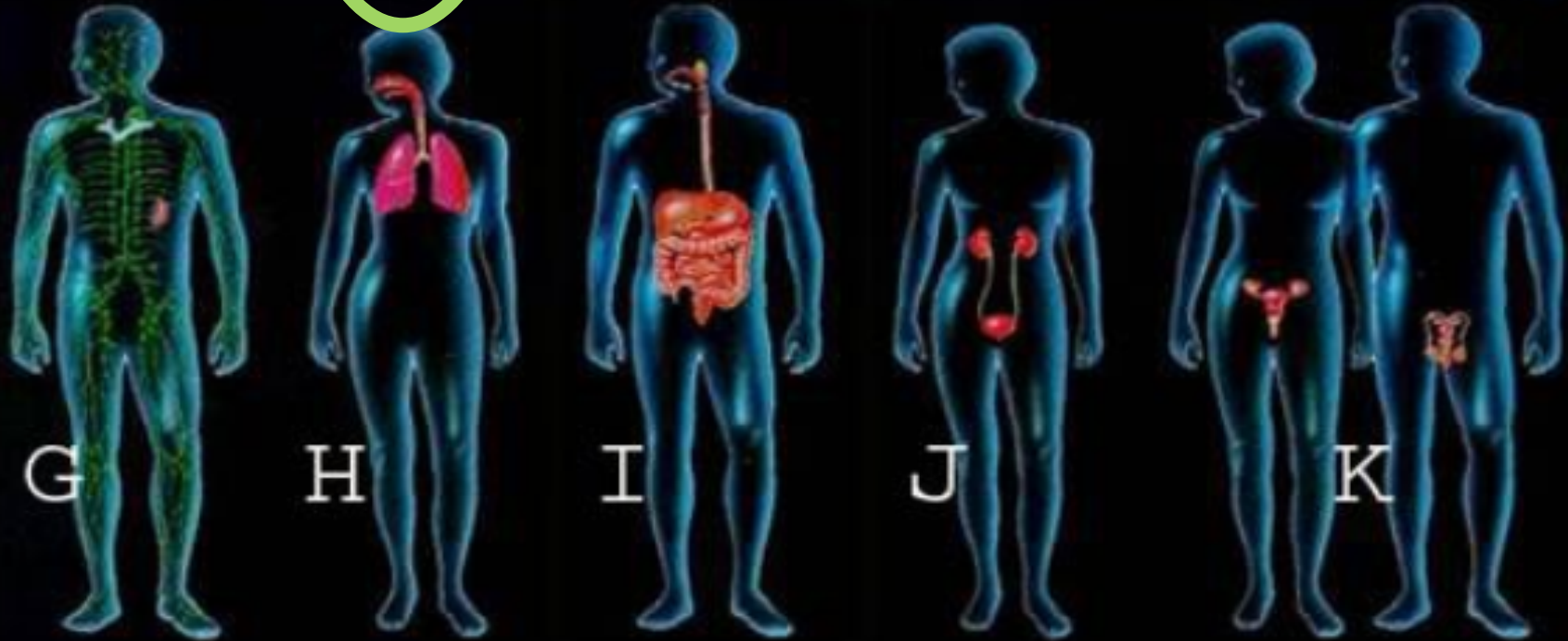
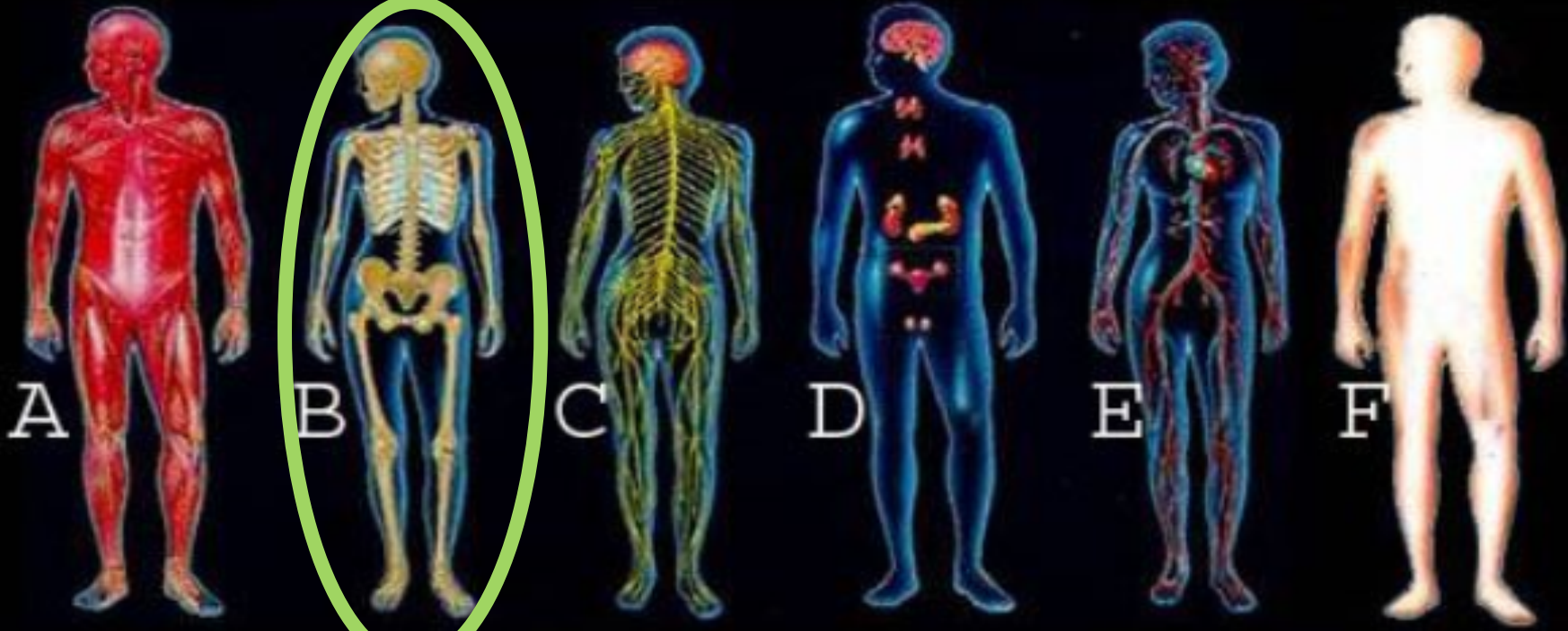


THE
INCREDIBLE
HUMAN MACHINE









The Skeletal System

- Functions:

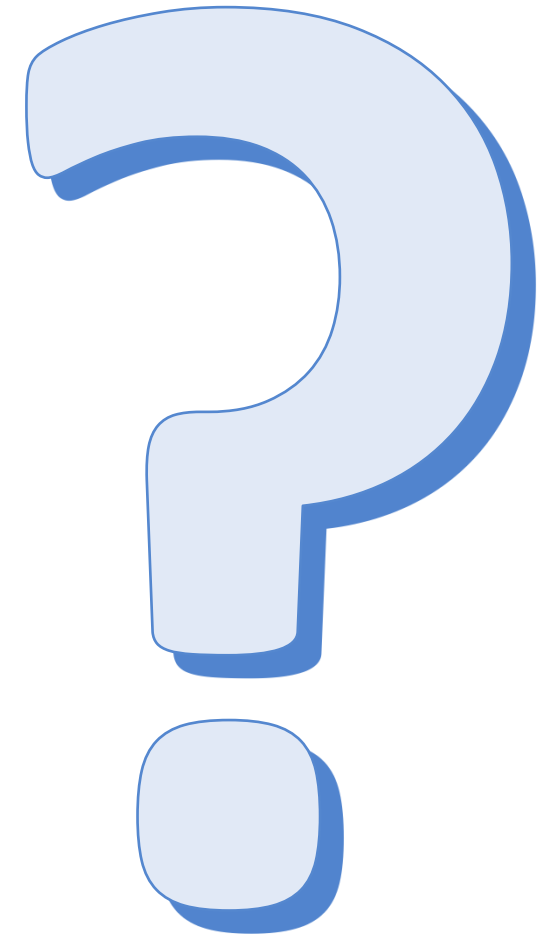
- Supports body
- Allows movement
- Protects internal organs
- Stores calcium
- Makes blood cells

- Parts

- Bones
- Joints
- Ligaments
- Cartilage



- How many bones are in the adult human body?
- Who has more bones a baby or an adult?
- What is the smallest bone?
- What is the largest?



- How many bones are in the adult human body?

206!

- Who has more bones a baby or an adult?
- What is the smallest bone?
- What is the largest?

- How many bones are in the adult human body?

206!

- Who has more bones a baby or an adult?

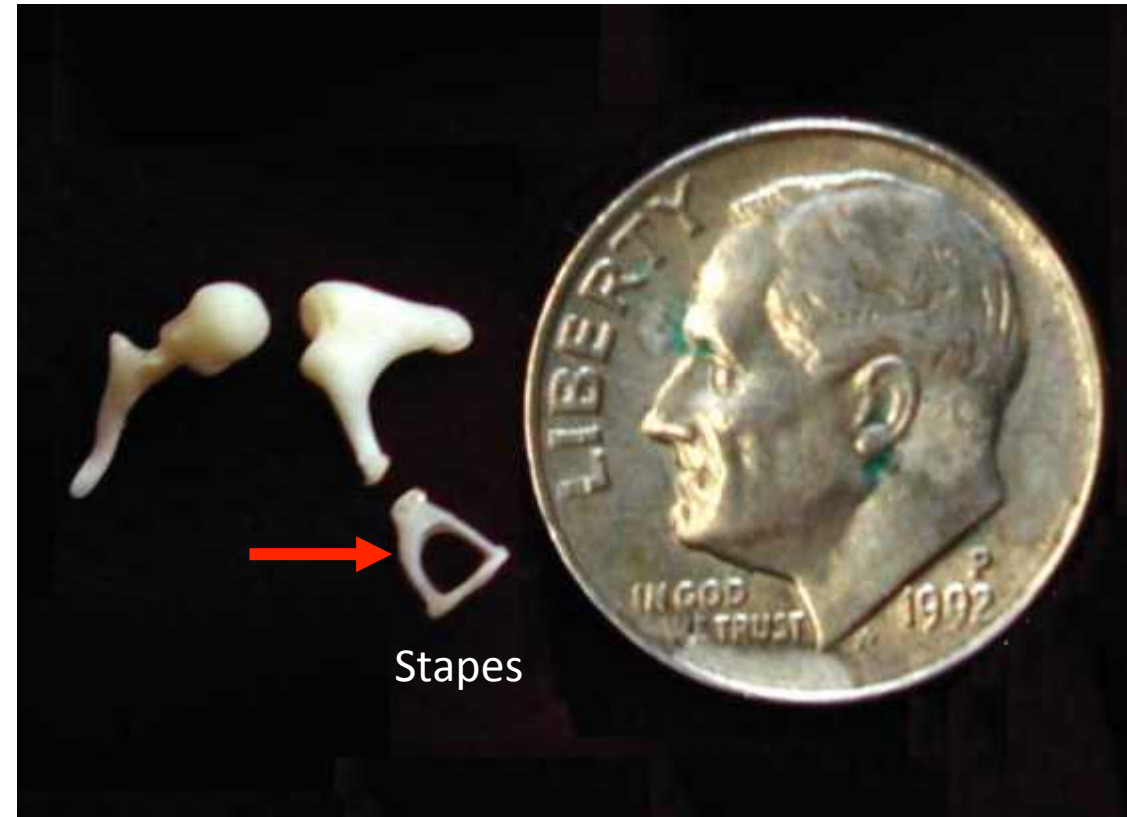
A newborn baby has 300 bones!

- What is the smallest bone?
- What is the largest?

- How many bones are in the adult human body?

206!

- Who has more bones a baby or an adult?
- What is the smallest bone?
- What is the largest?



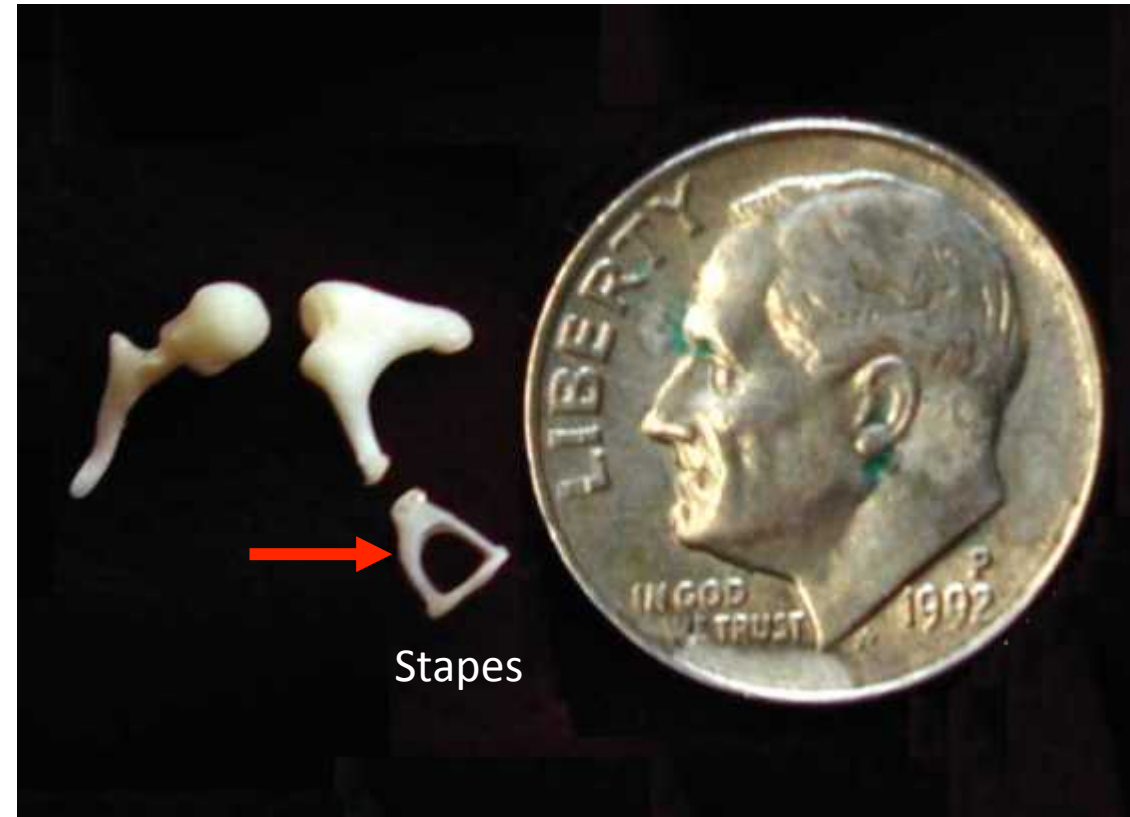
- How many bones are in the adult human body?

206!

- Who has more bones a baby or an adult?

- What is the smallest bone?

- What is the largest?



How do we see bones?

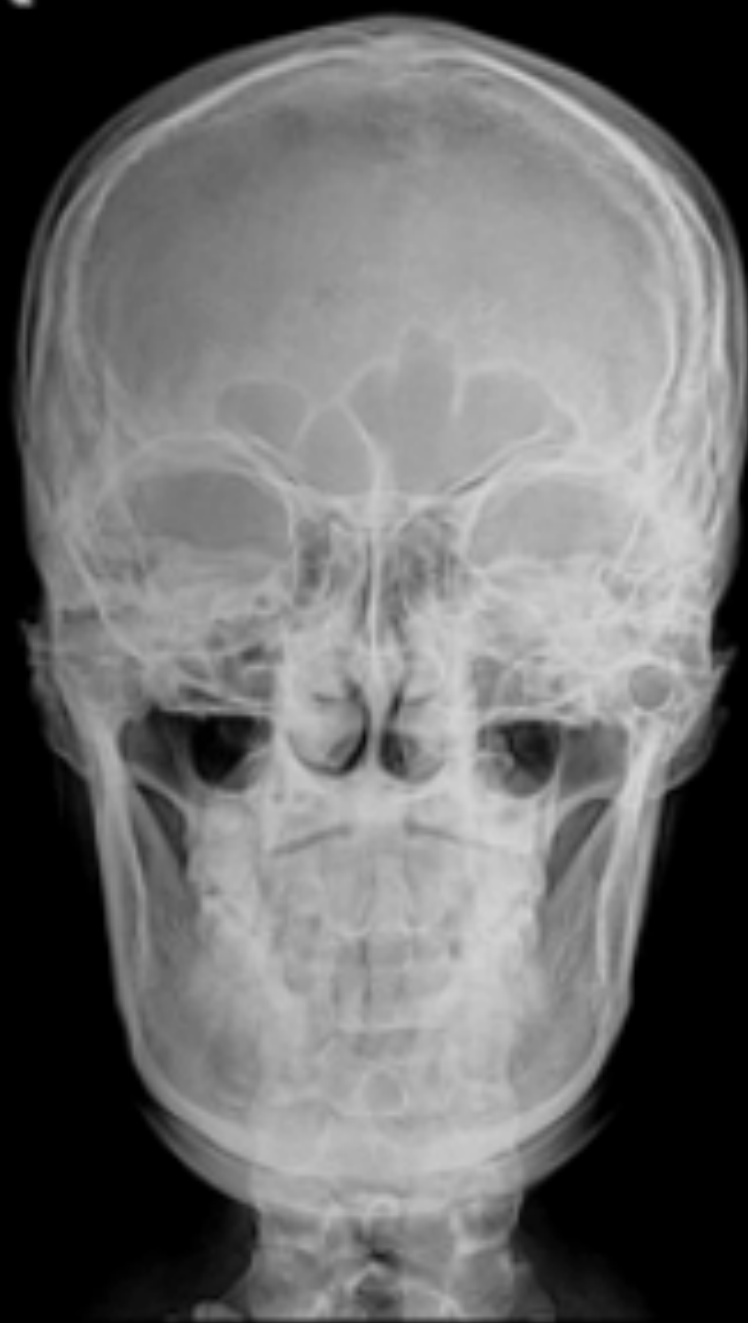
X-Rays

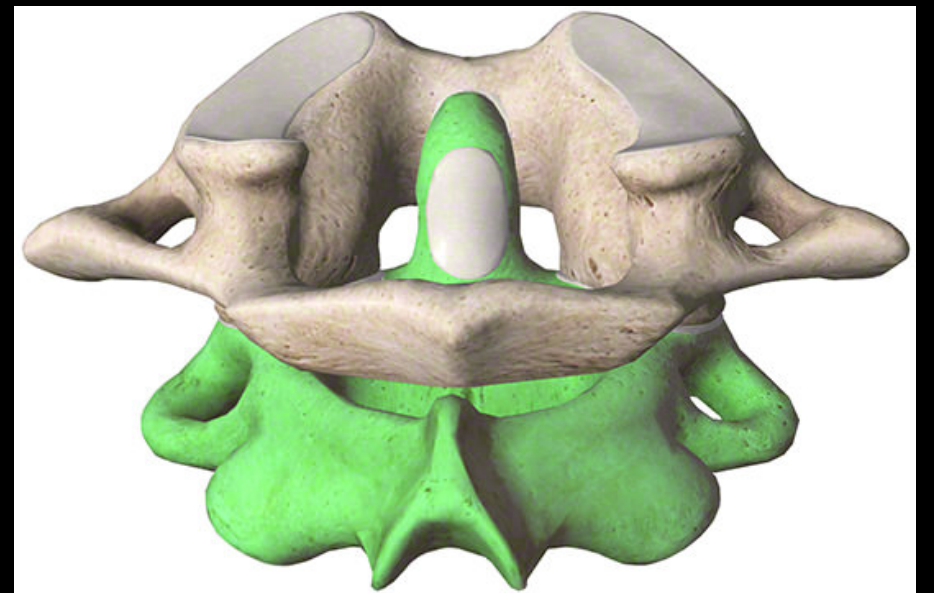
- Invented by Wilhelm Conrad Röntgen, a German physicist, in 1895

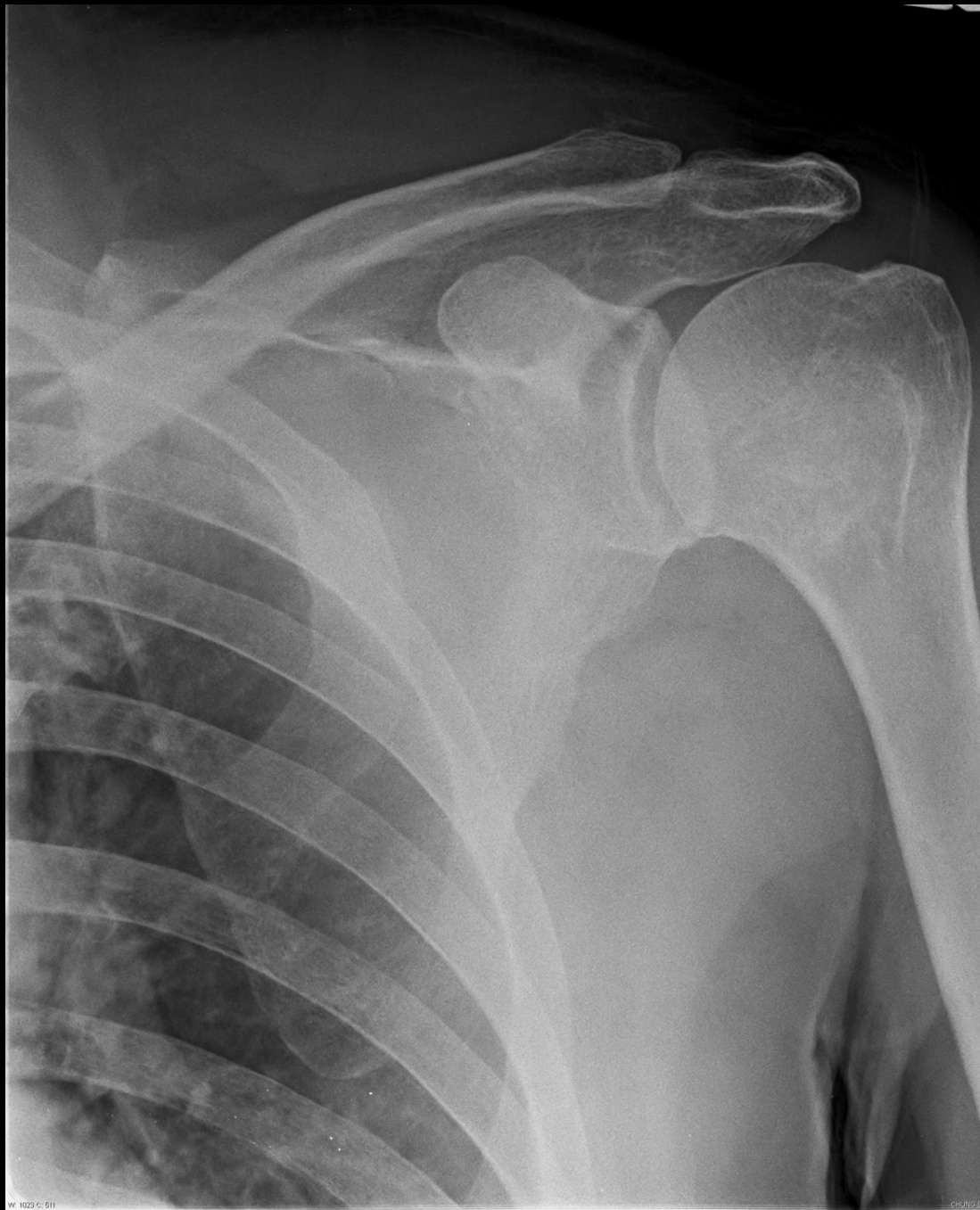
By accident!



R



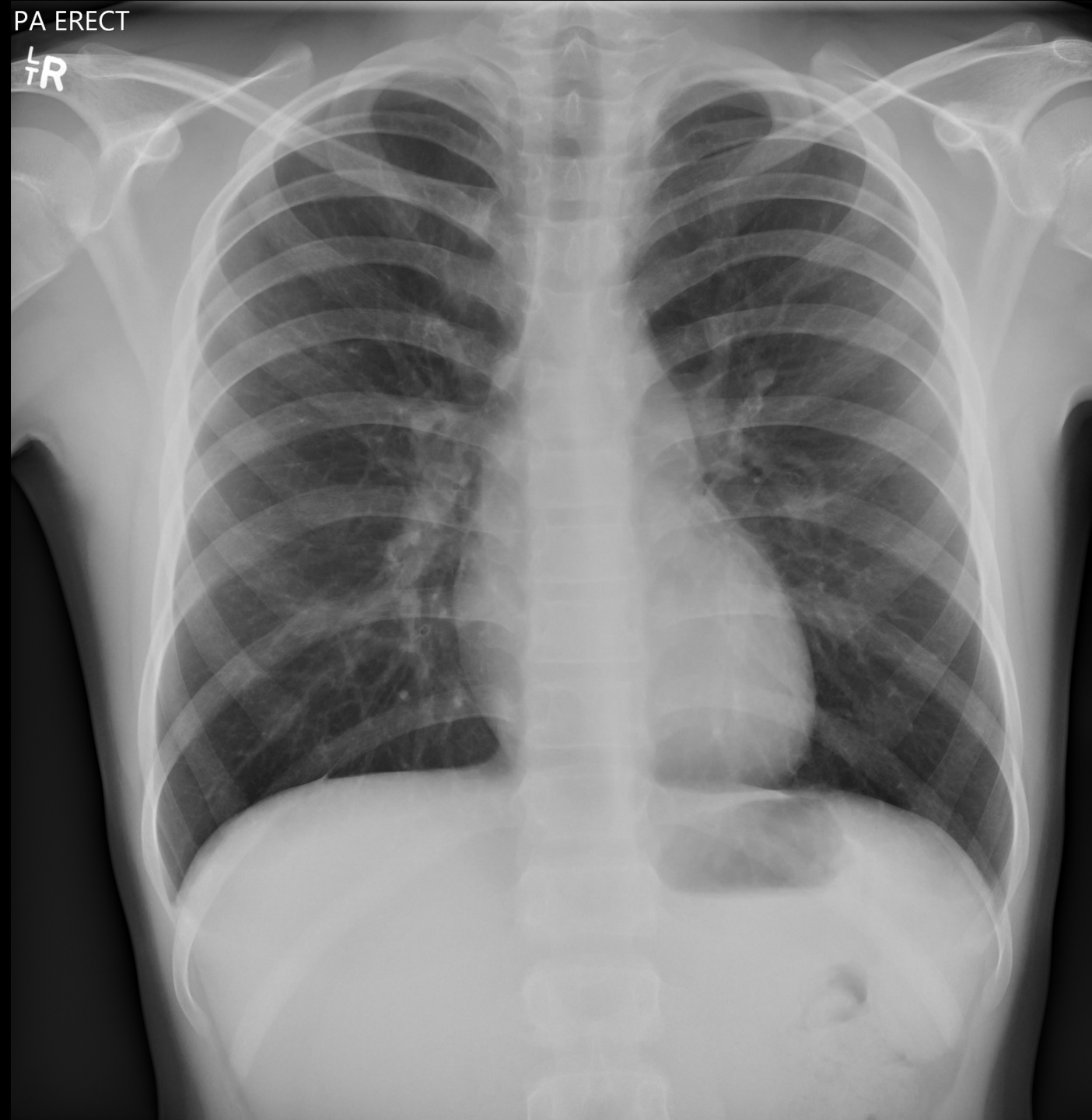


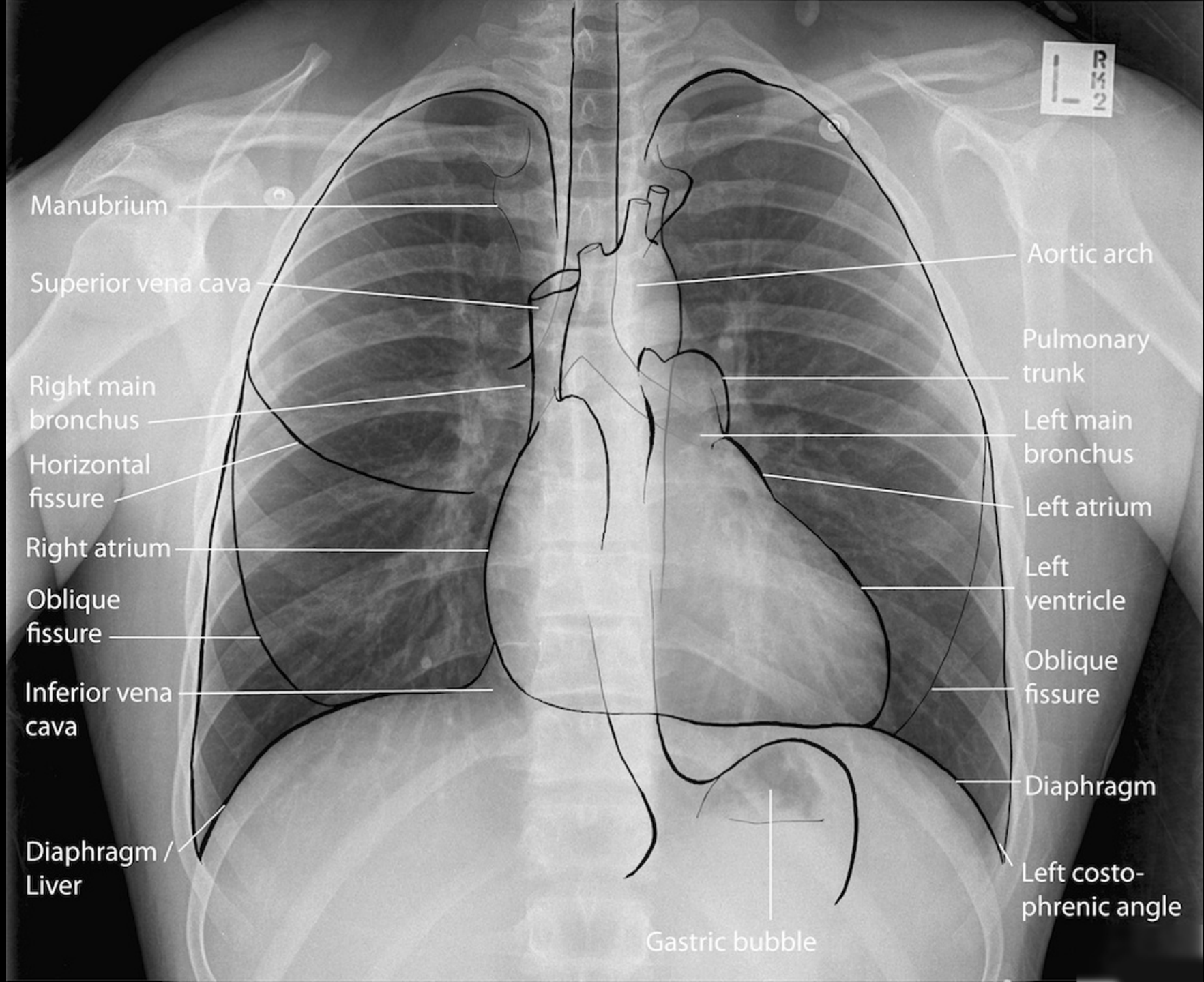




PA ERECT

TR









Female



Male





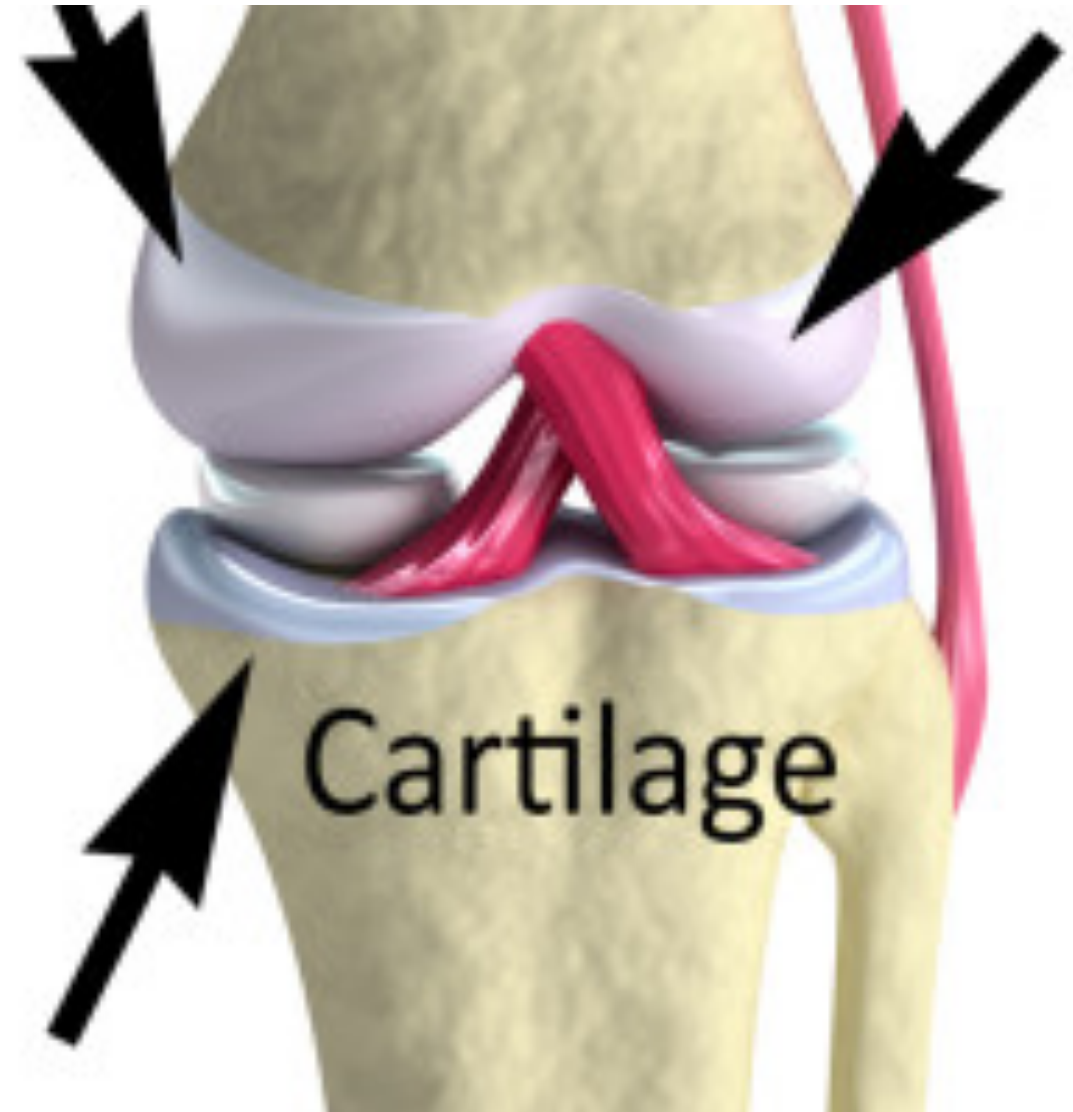
What are these spaces?

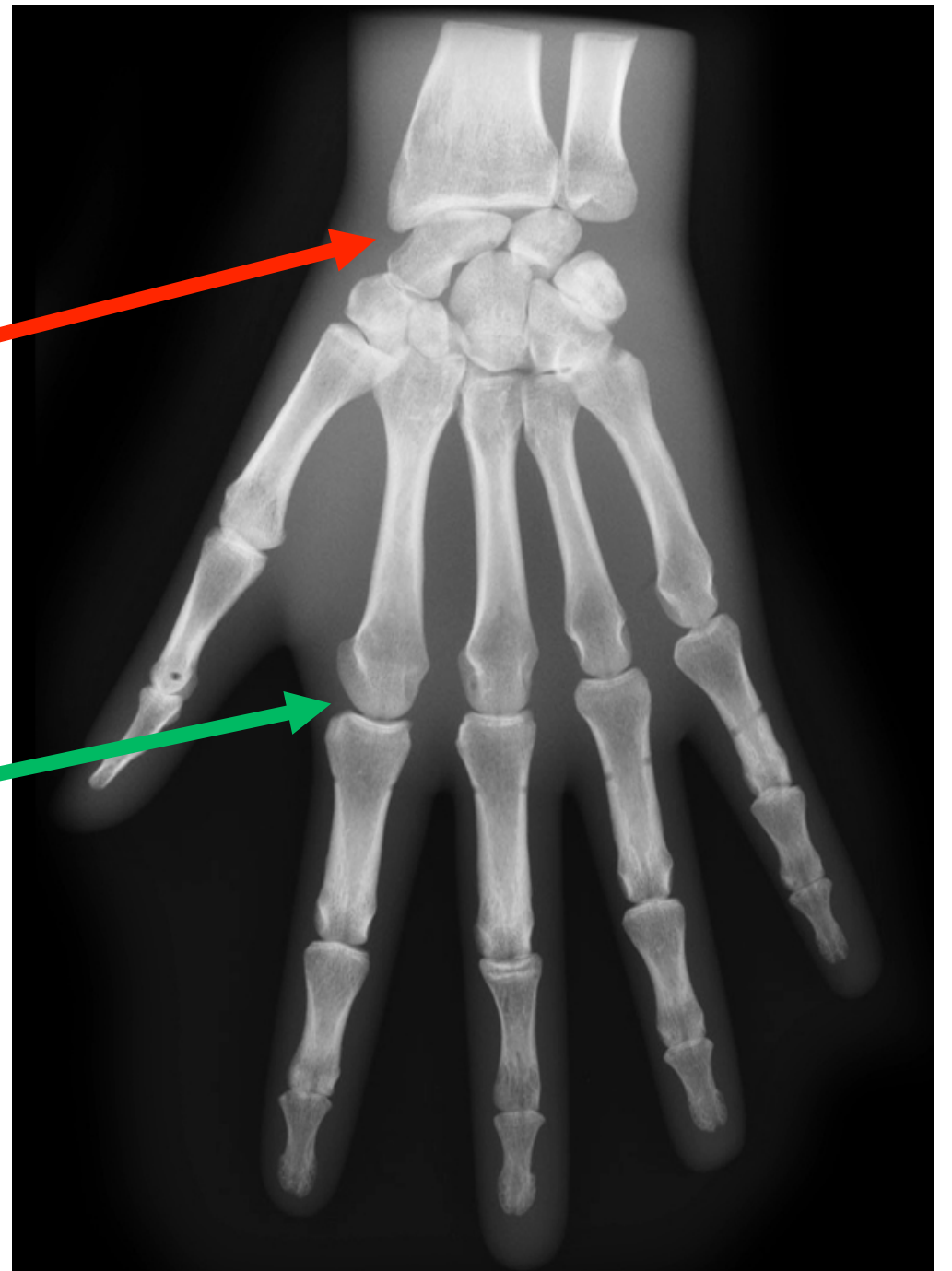
Is something actually there?



Articular Cartilage

- Shock absorber
- Friction free surface for gliding
- Would you like to see a real joint with cartilage still attached?















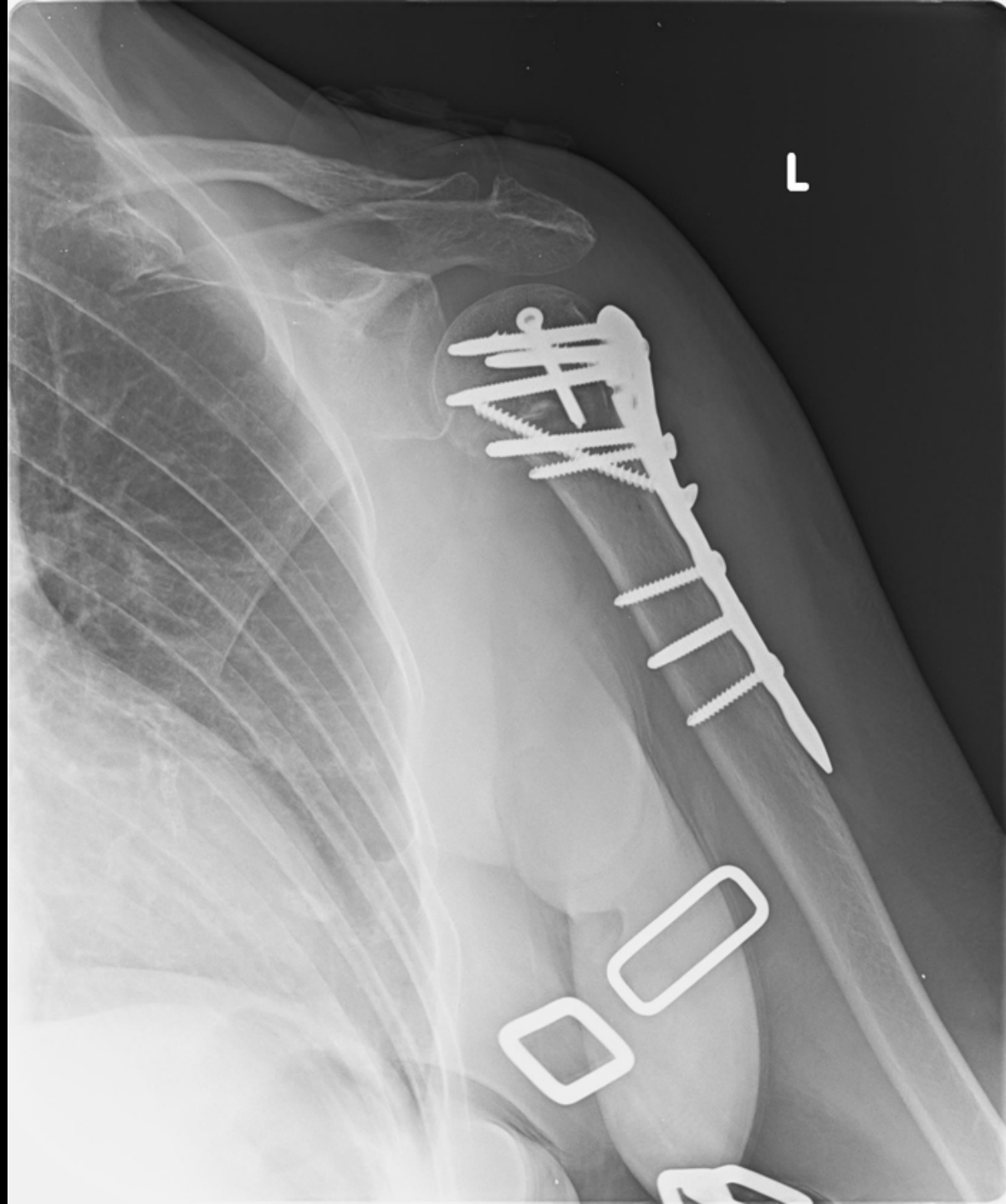
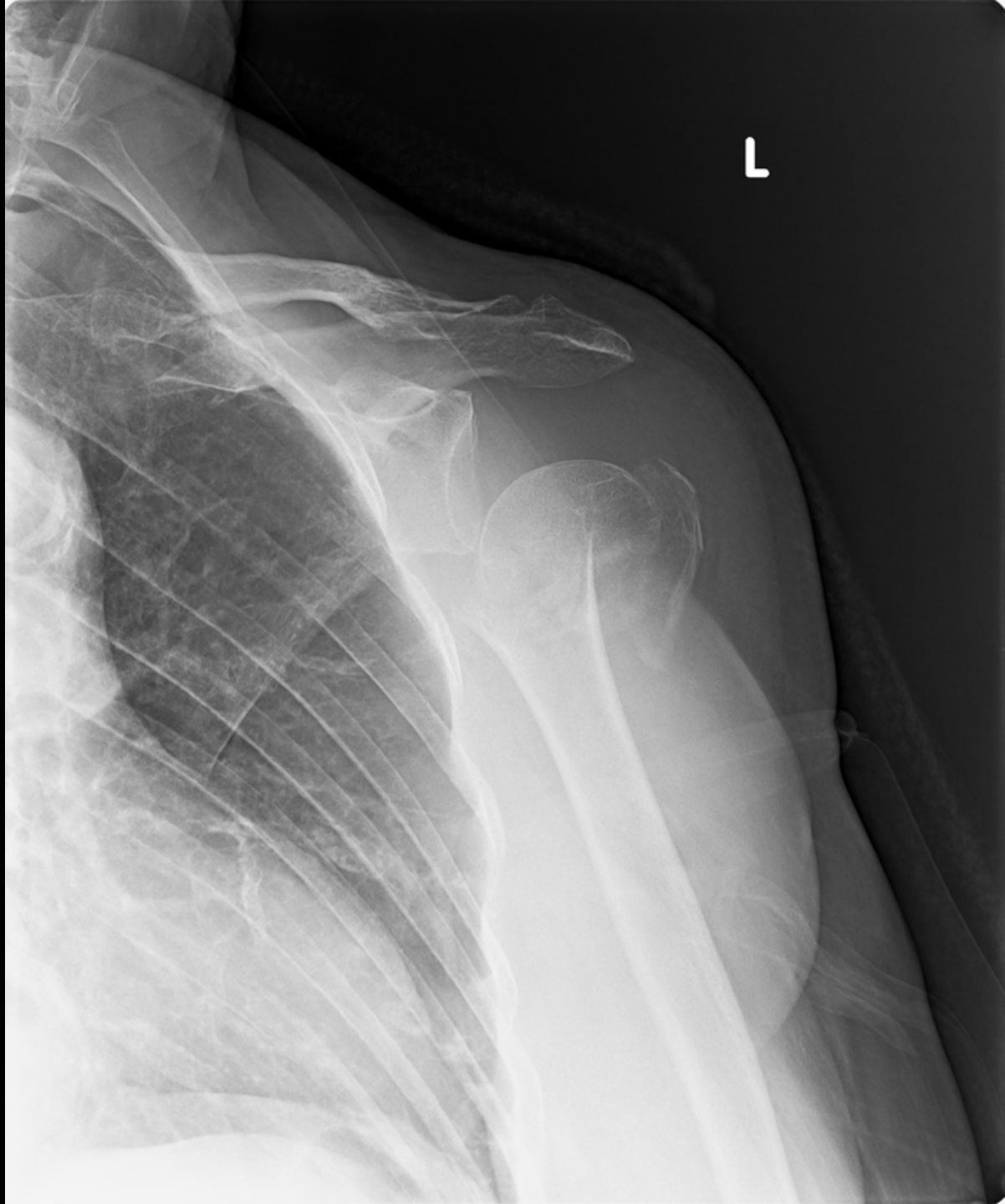






Before









1

BEFORE

09:16 AM

AFTER

R

Room 03

W 38 1
C 195
Knee AP

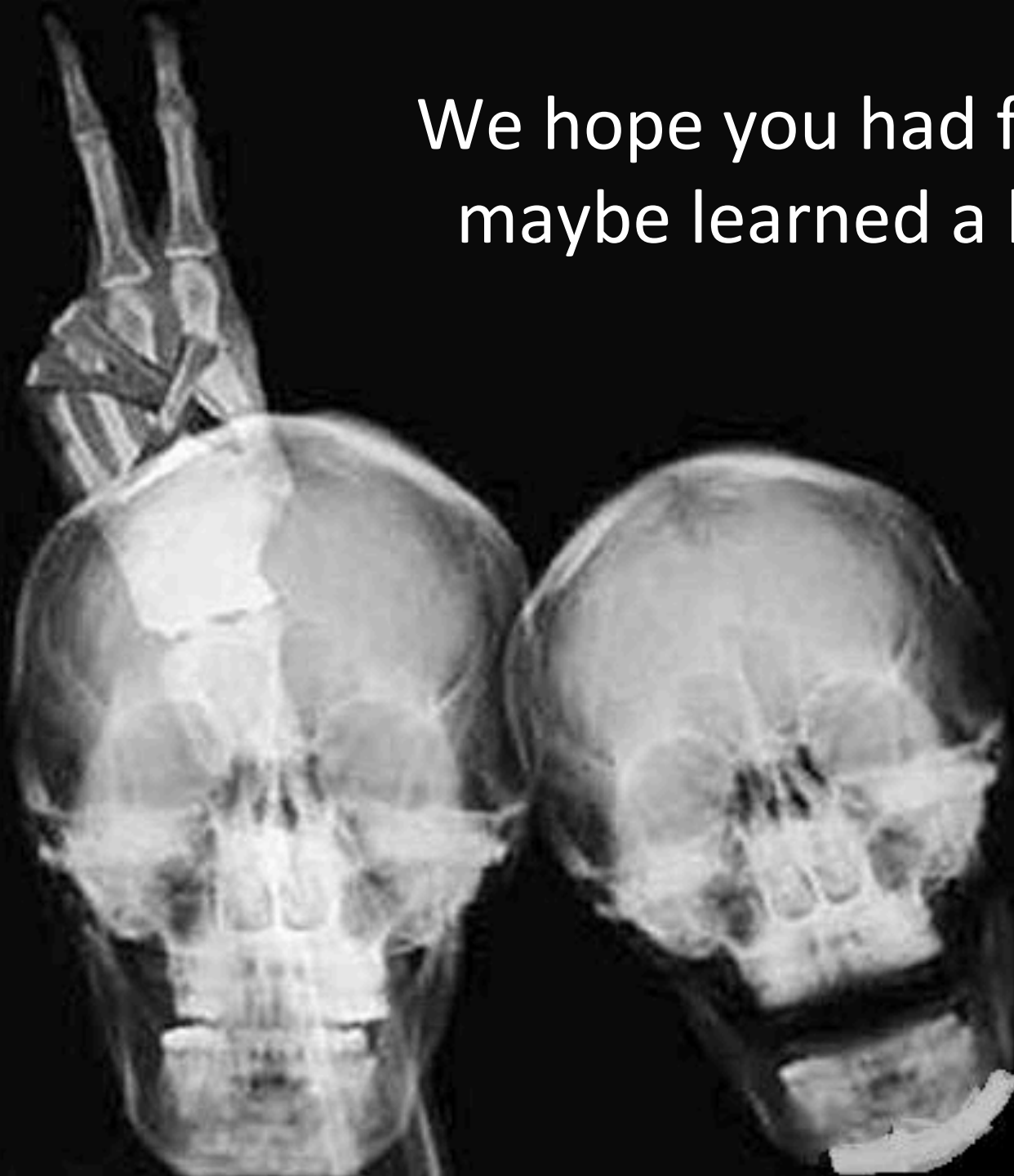






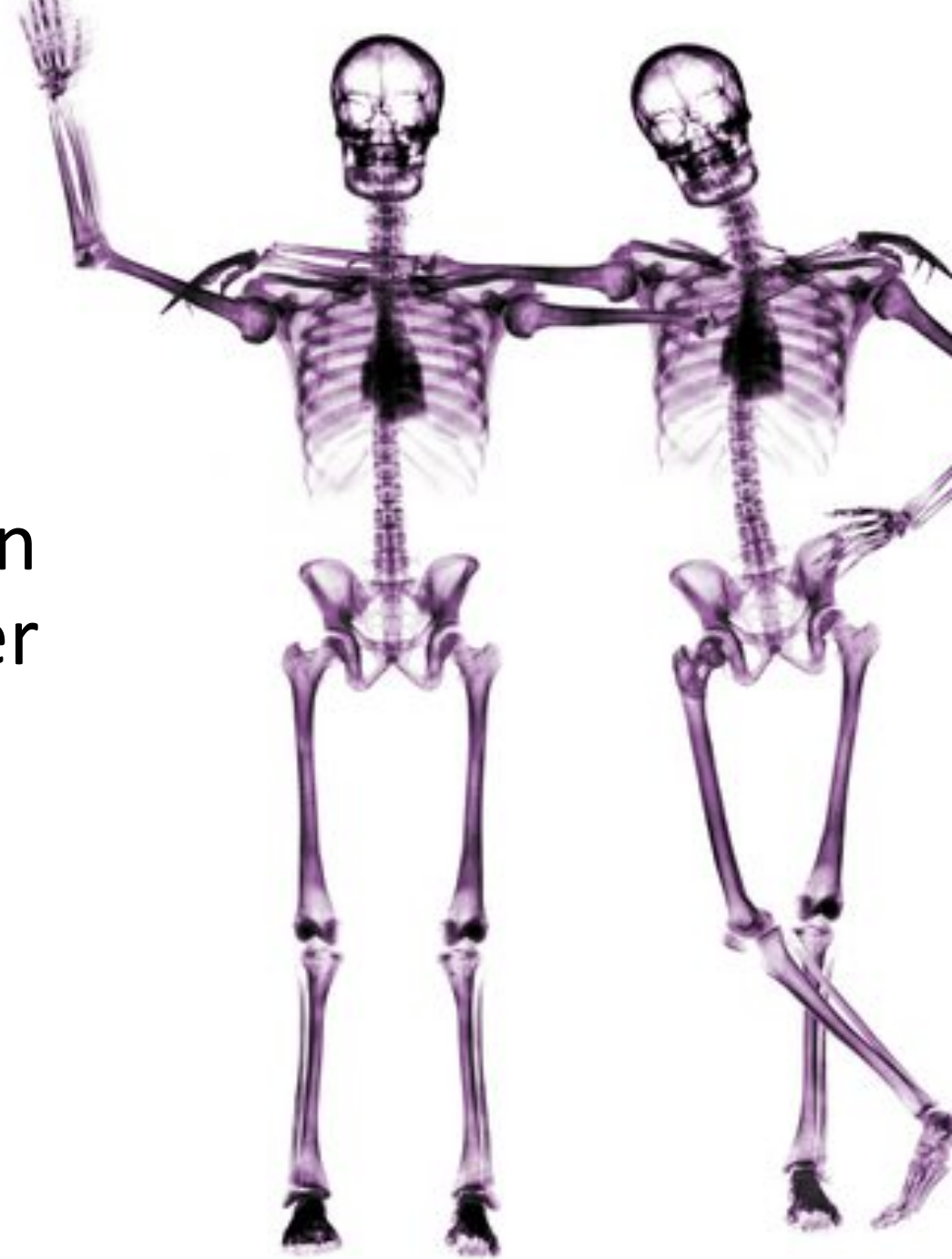


We hope you had fun and
maybe learned a little!!



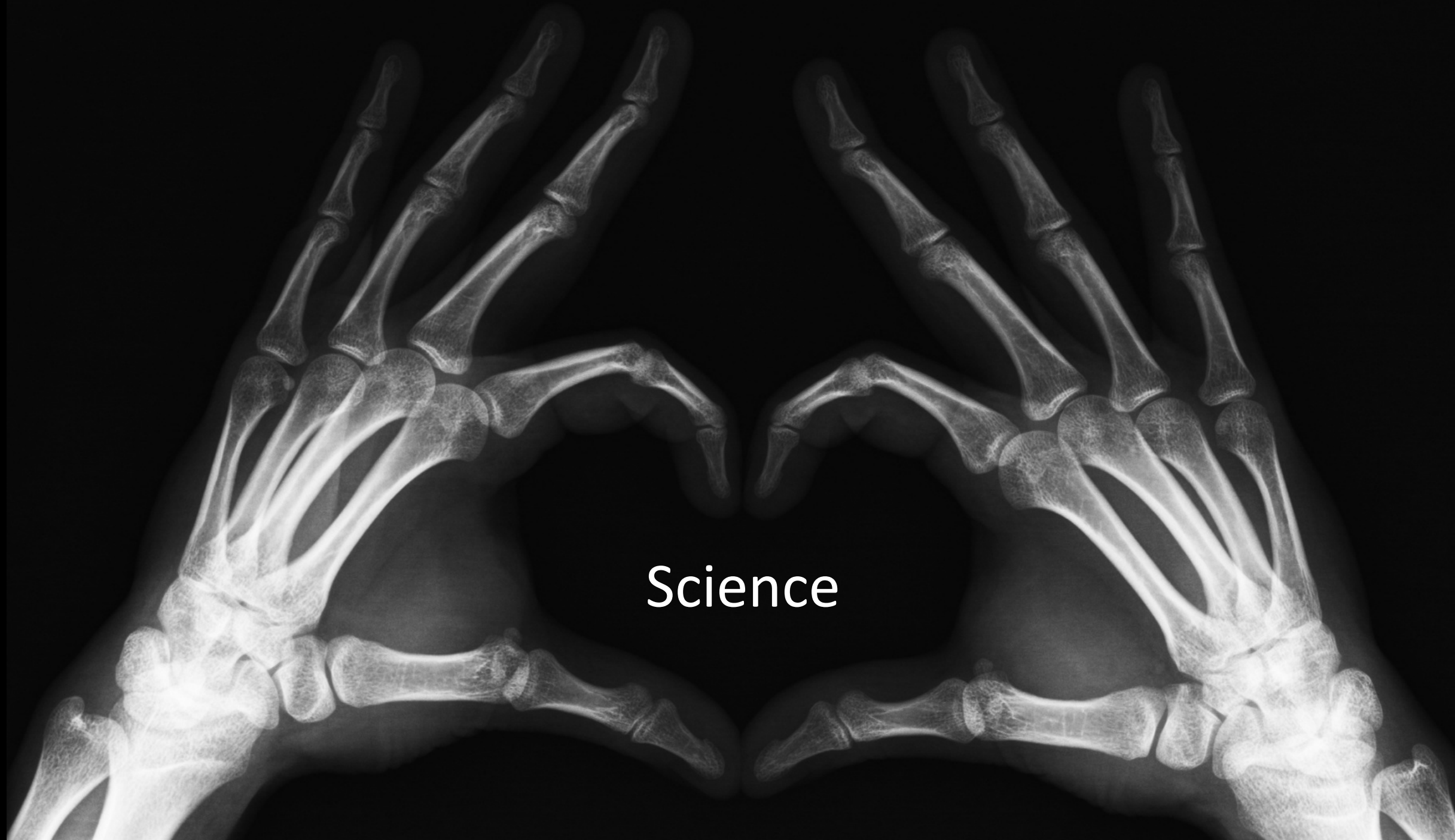
If you had fun today and are interested in a career in science, know that there is a place for you in the scientific community. No matter what your interest are!

Consider the following jobs:



Careers in Science/Medicine

- Physician
 - Pharmacists
 - PA
 - Nurse Practitioner
 - Nurse (RN, CNA)
 - X-ray technician
 - Medical Assistant
 - Radiation Therapist
 - Physical Therapist
 - Athletic Trainer
 - EMT/Paramedic
 - Pharmacy Technician
 - Research Scientist
 - Academic Professor
 - Assistant Scientist
 - Forensic Scientist
 - Laboratory Assistant
 - Medical lab technician
- Educators at all levels!



Science