

BRONZE MEDALLION

PUA21010 Certificate II in Public Safety (Aquatic Rescue)

THE HUMAN BODY

Chapter 3

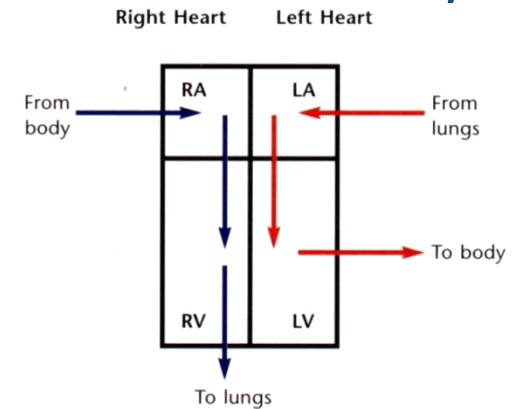
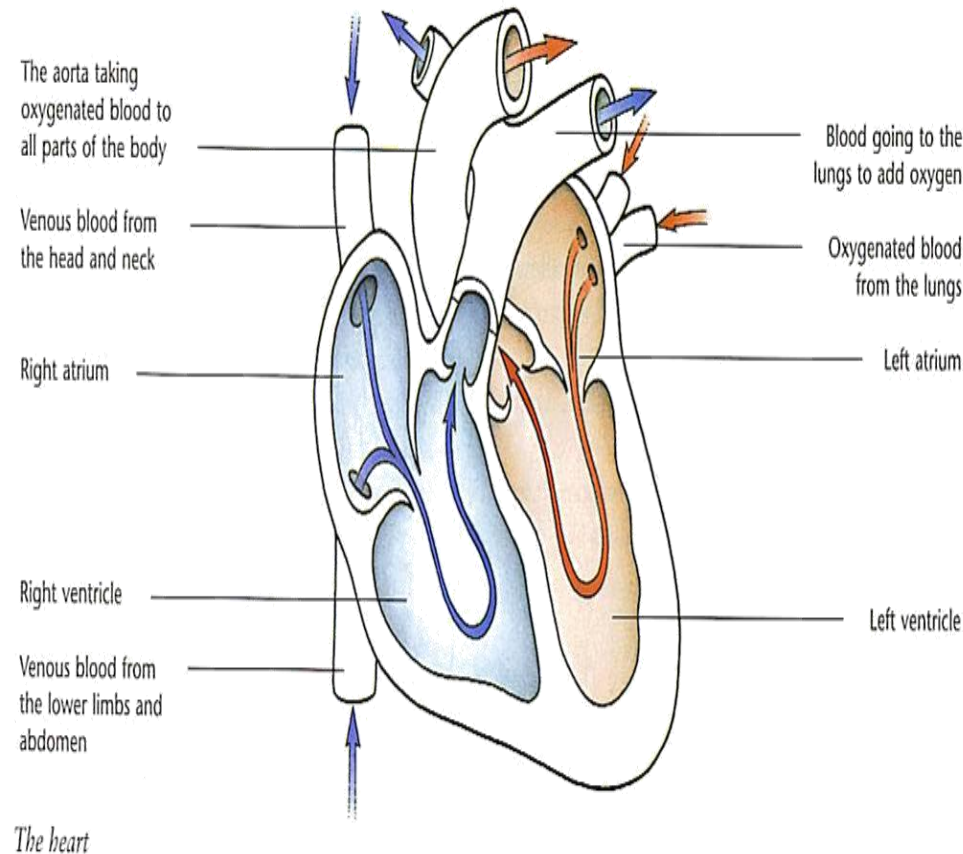
Learning outcomes

- Circulatory system
- Skeletal system
- Respiratory system
- Nervous system
- Digestive system
- Integumentary system
- Urinary system

Circulatory system

The heart is the central organ for the circulation of blood and consists of four chambers. It's primary functions is to pump blood into two areas:

- The lungs
- The rest of the body

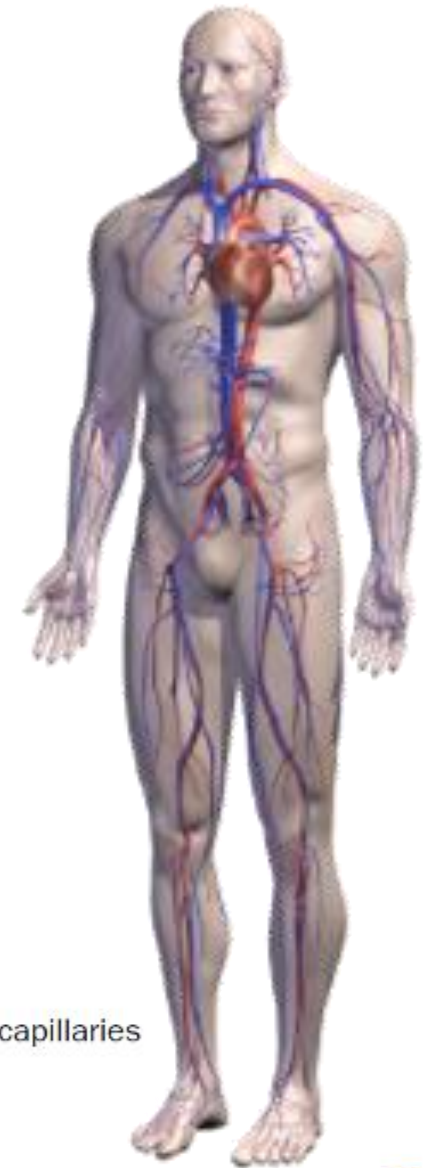
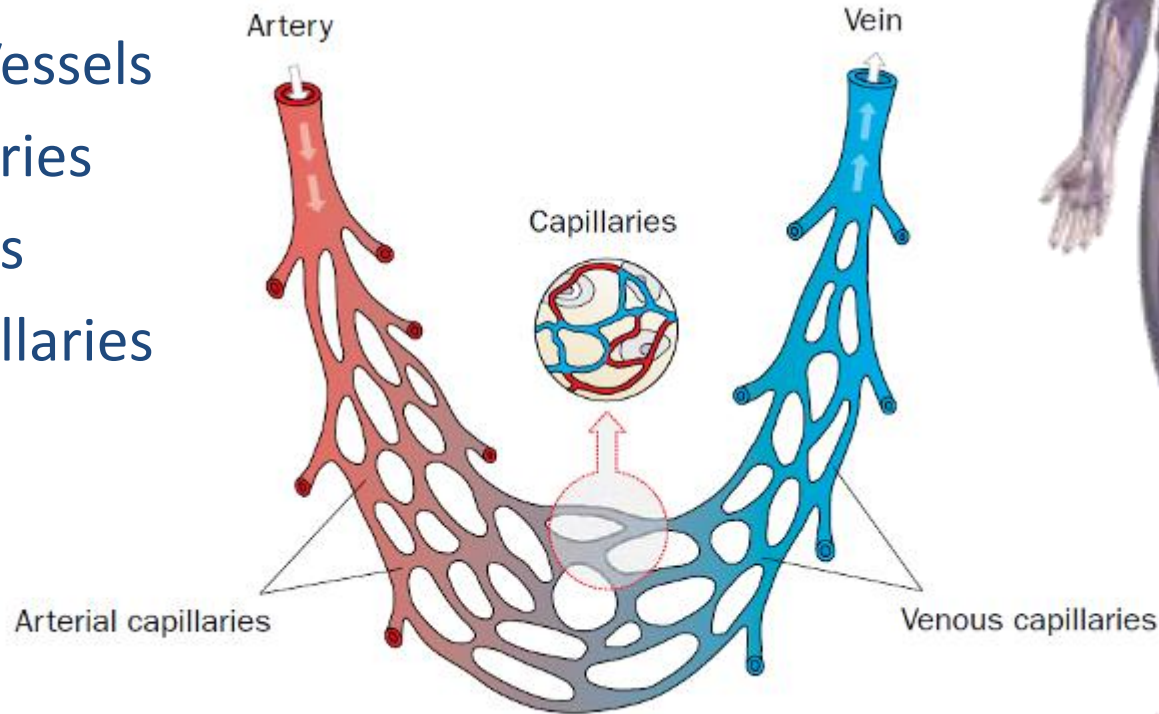


A — atrium, V — ventricle

Circulatory system

Consists of:

- Heart
- Blood Vessels
 - Arteries
 - Veins
 - Capillaries
- Blood





Musculoskeletal system

bones and joints

Bones:

- provides body shape and support and also protects the vital organs.

Muscles:

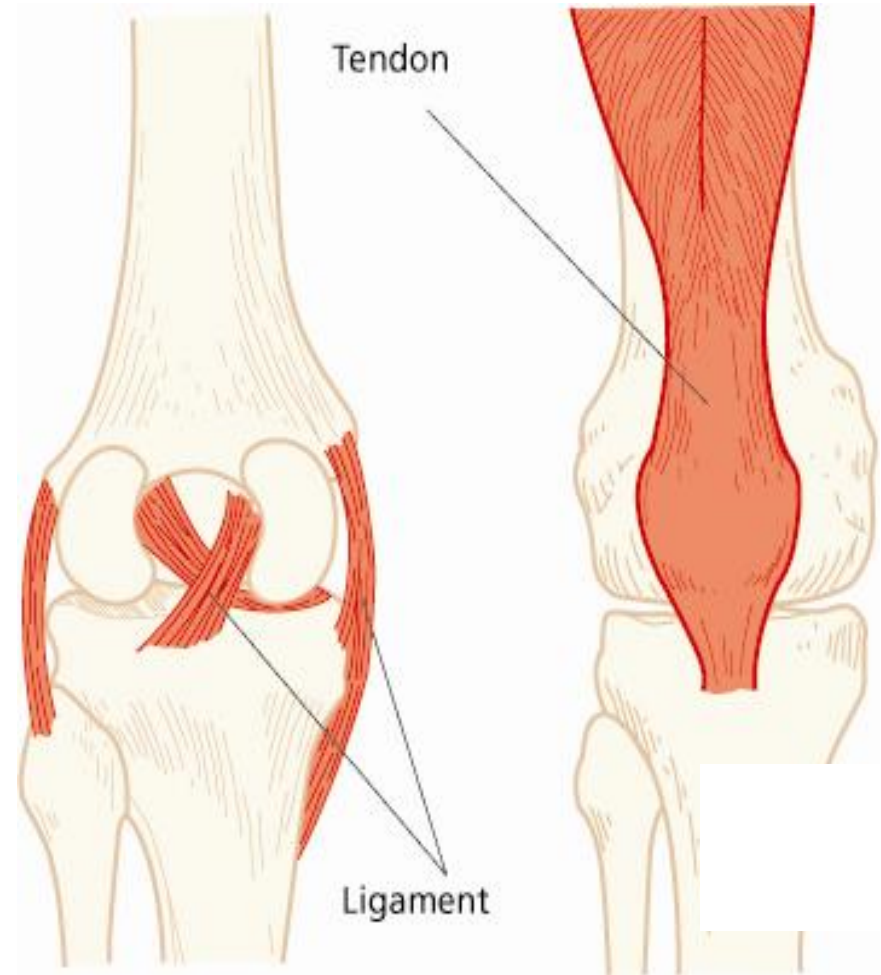
- Create movement

Tendons:

- Connect Muscle to Bone

Ligaments:

- Connect Bone to Bone



Skeletal system

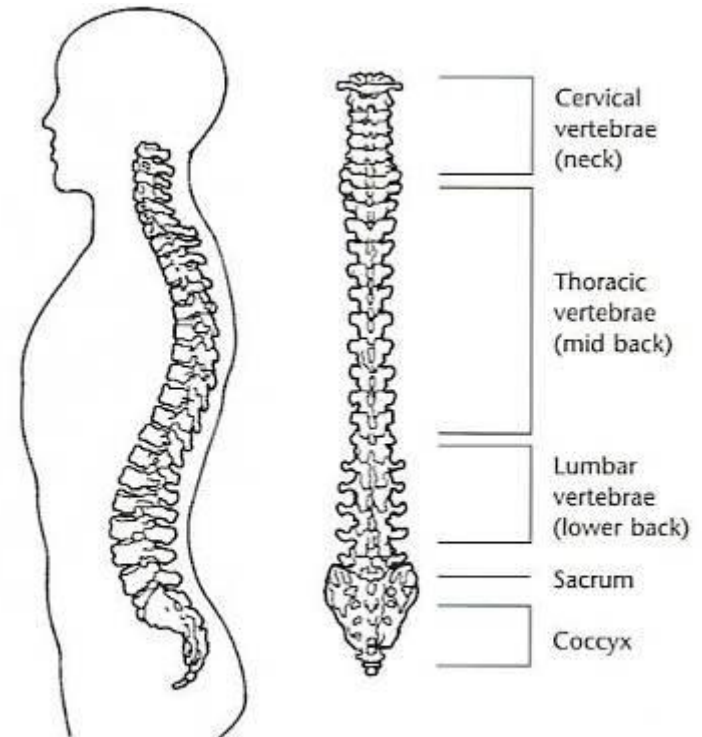
The spinal column is divided into five sections, three are mobile:

Mobile sections:

- Cervical (neck)
- Thoracic (middle back)
- Lumbar (lower back)

Immobile sections:

- Sacrum
- Coccyx

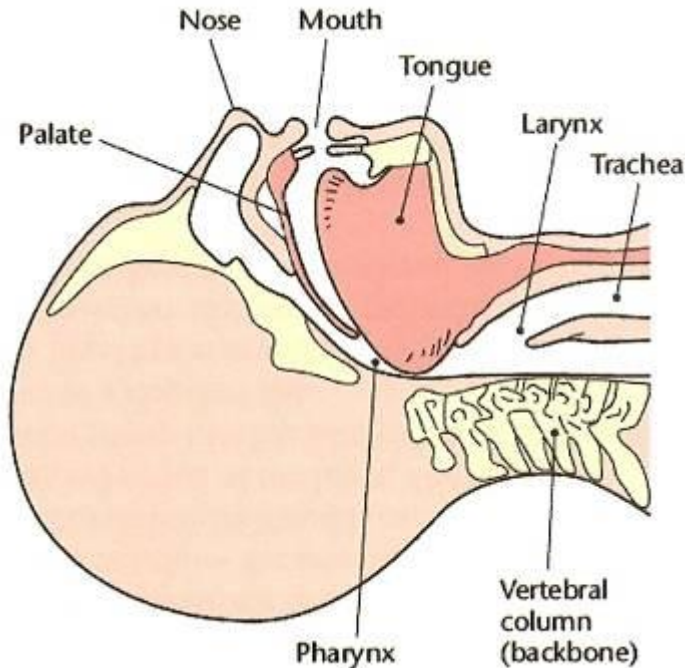


Normal spinal column

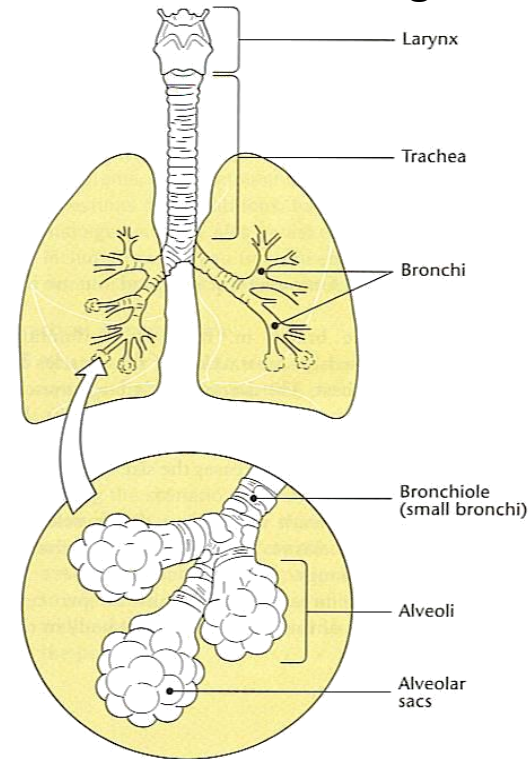
Respiratory system

The respiratory system comprises upper and lower sections

The upper section (Airway)

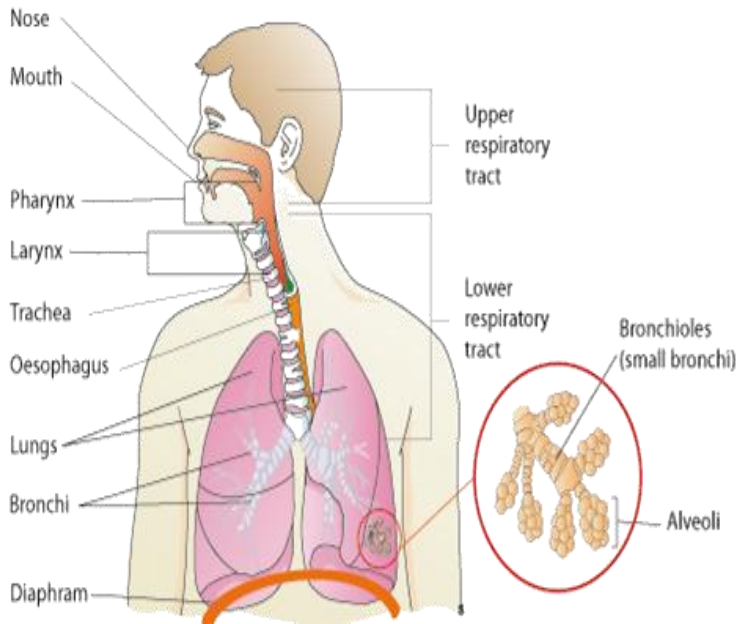


Lower section - Lungs

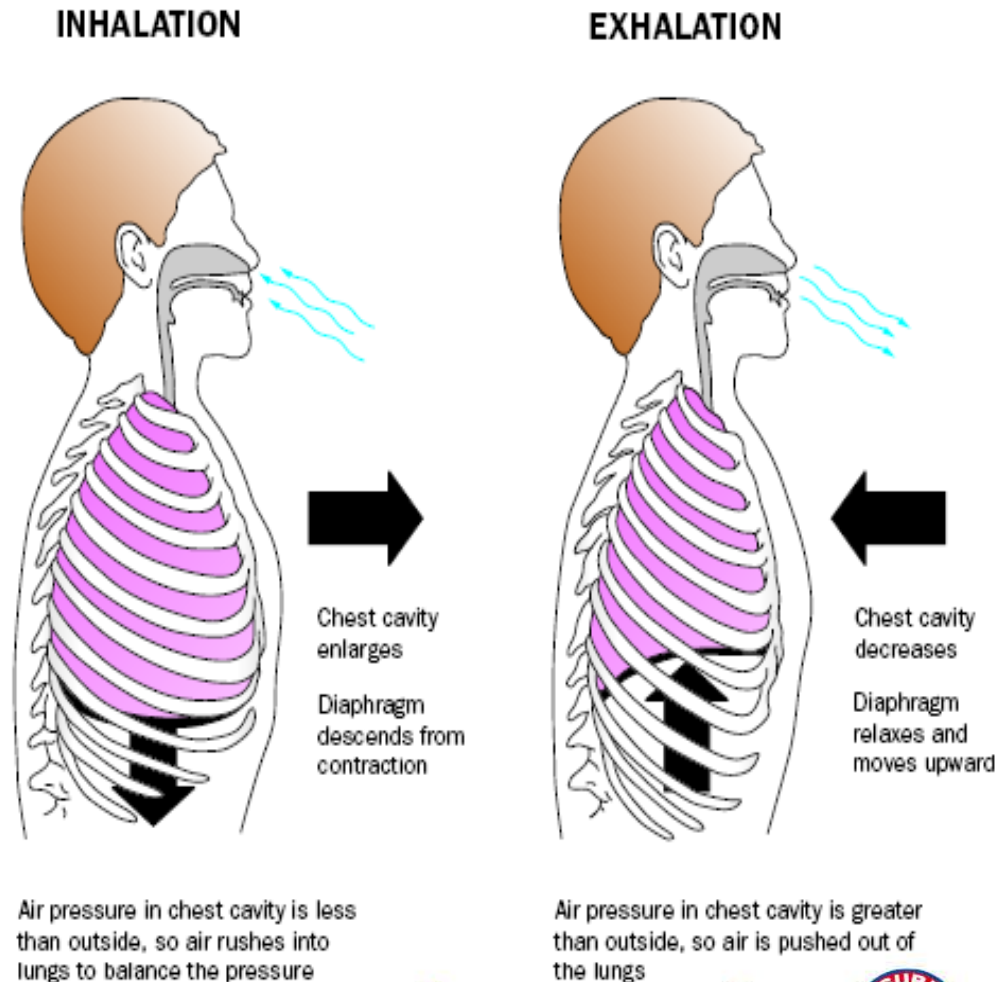


Air sac and lungs

Respiratory system the breathing process



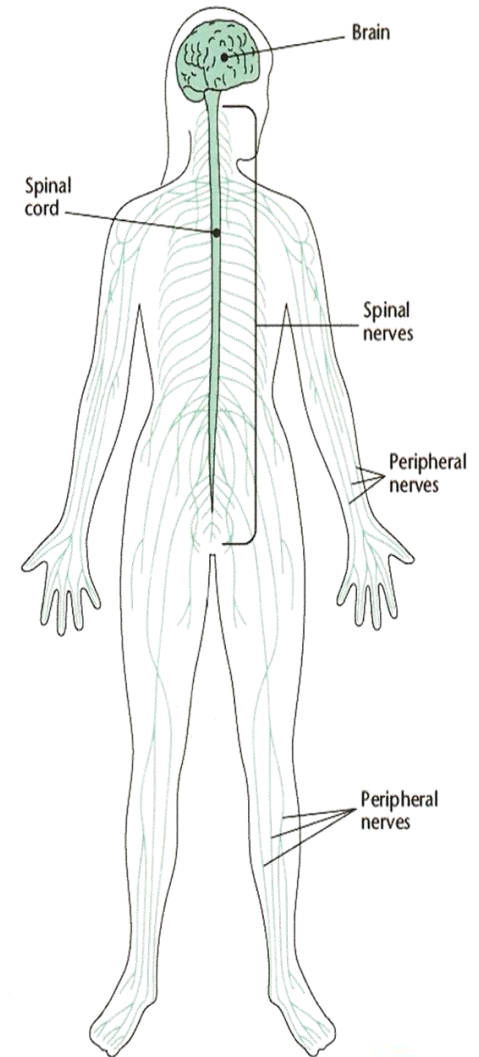
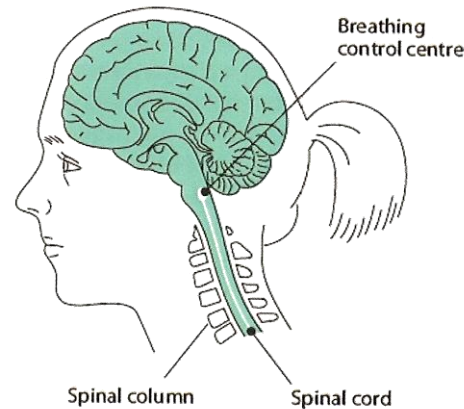
- The air we breathe has **21%** oxygen content.
- Our body uses about **5%**.
- We exhale about **16%**
8 oxygen.



Nervous system

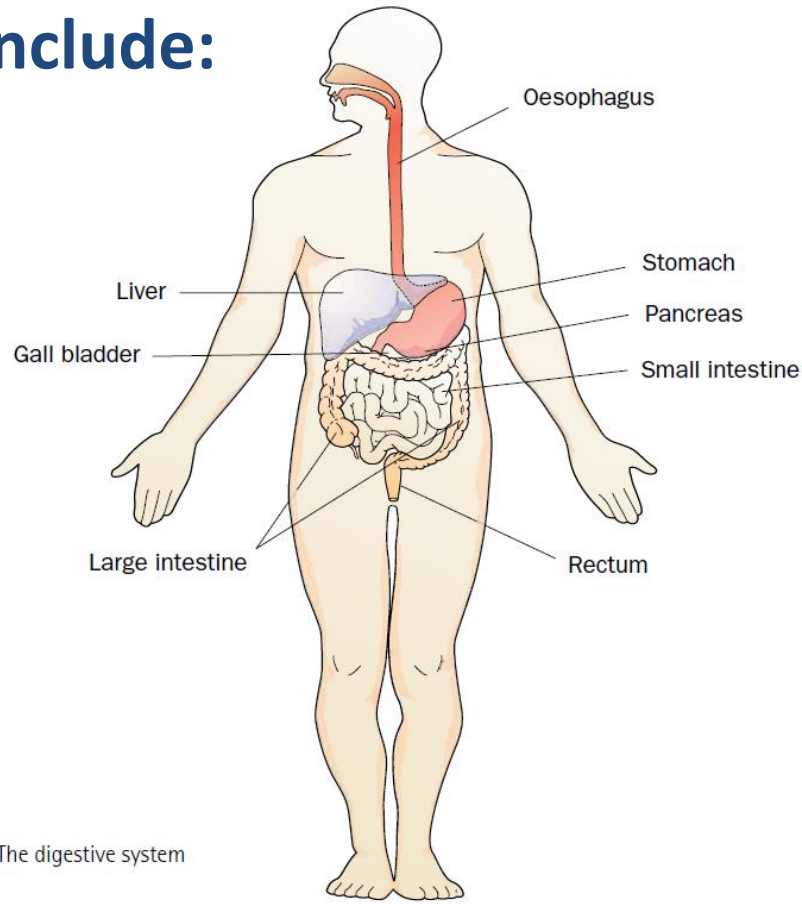
The brain through the spinal cord and nerves control every part of the body.

- **Central nervous system** is made up of the brain and spinal column
- **Breathing control centre** is located in the brain stem
- **Peripheral nervous system (PNS)** comprises nerves and sensory receptors outside of the central nervous system



Digestive system

Major organs include:



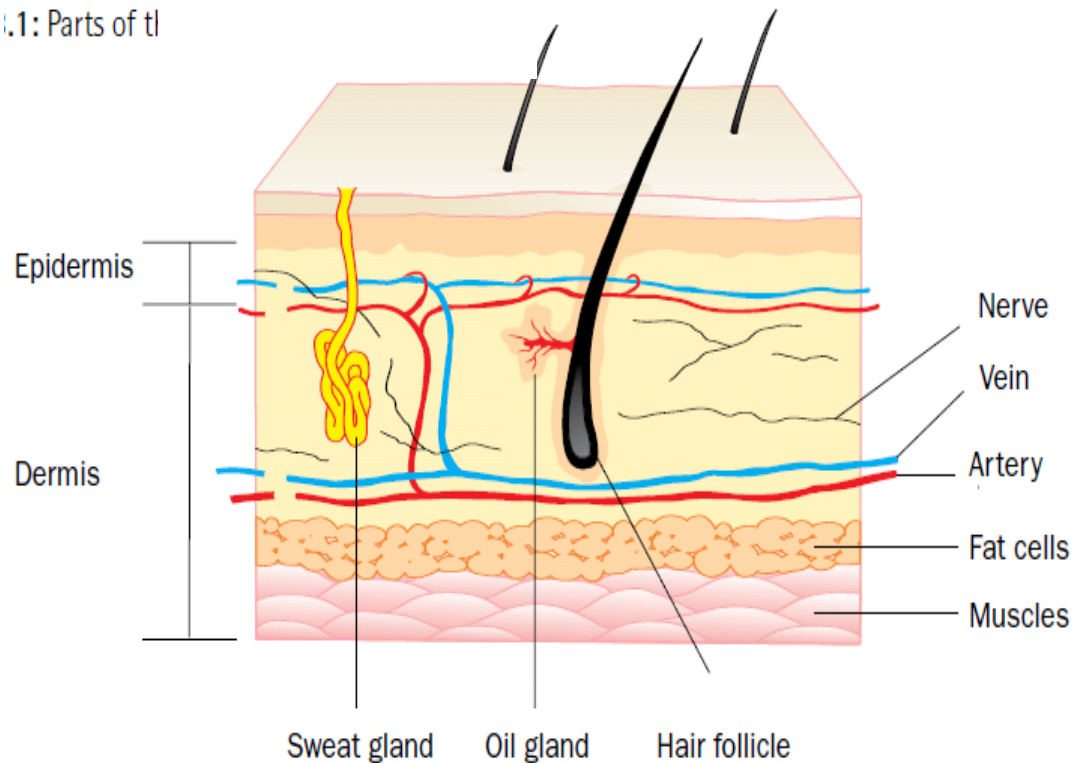
.1: The digestive system

The integumentary system (Skin)

The skin is the largest organ of the body and it performs a number of vital functions:

- Protect underlying tissues and organs
- Prevent entry of infectious agents
- Maintain/regulate body temperature
- Prevent dehydration
- Detect stimuli (e.g. touch)
- Produce body's vitamin D

Fig. 1: Parts of the



Thank you

Australian for life. 