

Topographic Anatomy

- Anterior/Posterior
- Midline:
- Medial/Lateral
- Superior/Inferior
- Internal/External
- Distal/Proximal

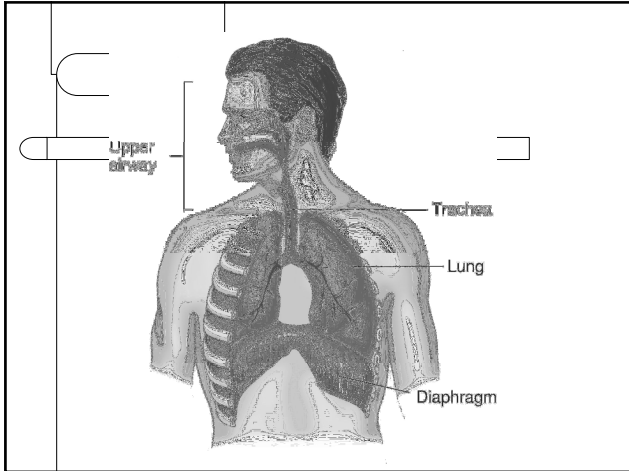
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Body Systems

- Cell – basic unit
- Tissue – a group of cells
- Organs – a group of tissues
- Vital organs – function is essential to life
- Body system – a group of organs

Respiratory System

- Function ?
- Without oxygen death will result in 4-6 minutes
- Oxygen is made available to the body through the respiratory system
- CO2 is removed
- Parts



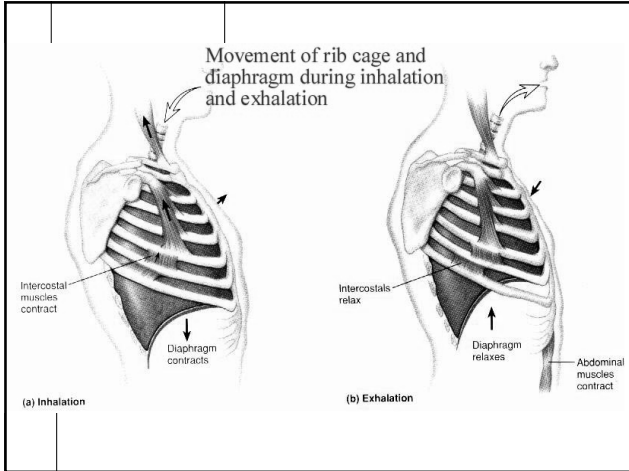
Airway

- Nose
 - Brings air into the body
 - Warms & filters the air
- Pharynx
 - Common pathway for food & air
 - Routes food to the esophagus and air to the trachea
 - Separated by epiglottis
 - Flap of tissue/valve
- Larynx
 - Voice box
 - Adam's apple
- Trachea
 - Windpipe
 - Leads to the lungs
- Lungs
 - Bronchial tubes lead to lungs

Normal swallowing controls do not work if unconscious

- That is why care givers should never pour liquids into the mouth of an unconscious person in an attempt to revive them. The liquid may flow down into the windpipe and suffocate the victim

- Respiration – process of breathing
- Inhalation –
- Exhalation –
- Children's airways are more easily obstructed



Normal Respiratory Rates

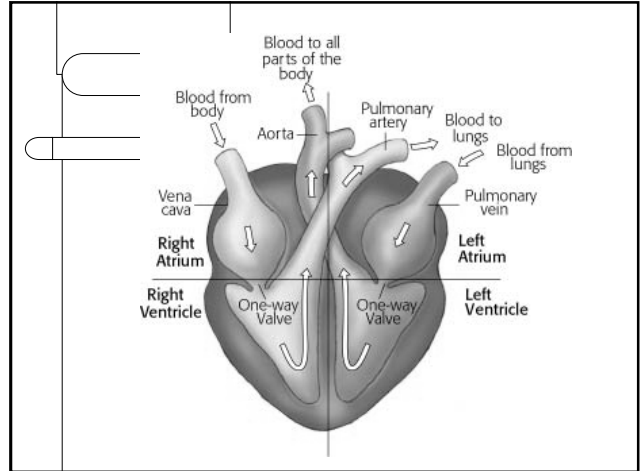
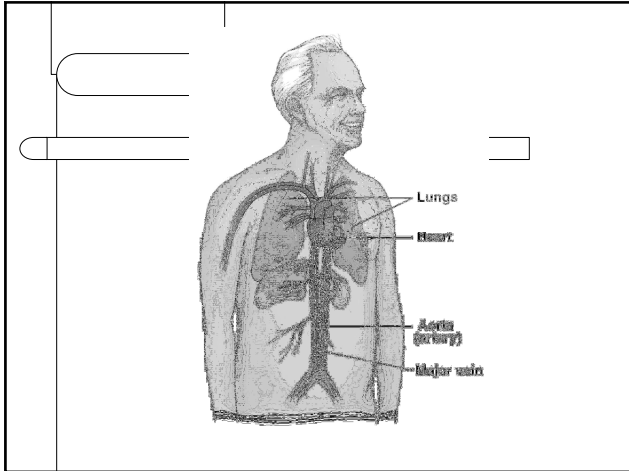
- Adult breathes/minute
- Children breathes/minute
- Infant breathes/minute
- What happens to this rate laying down, sitting up, & standing?

Sx of respiratory distress

- Definition
- Rate of breathing
- Cool & clammy skin
- Pale &/or cyanotic
- Nasal flaring
- Abnormal breathing noises
- Respiratory arrest
 - Breathing has stopped

Circulatory System

- Function
 - Responsible for circulating blood to cells organs
- Contraction
- Parts



- Blood – carries nutrient & other products
- Heart – pumps blood through the vessels
 - Series of contraction & relaxation
 - Blood pressure
 - Pulse
- Blood vessels
 - Arteries –
 - Capillaries-
 - Veins –

- ### Blood
- Blood has several components:
 - Plasma
 - Red blood cells: Carry oxygen
 - White blood cells: “Infection fighters”
 - Platelets: Start blood-clotting process

- Where is the O_2 ?
- Arterial bleeding – spurting
- Venial bleeding – flowing

What is a pulse?

- Normal Pulse rates
 - Adult
 - 60-80 beats/minute
 - Children
 - 80-100 beats/minute
 - Toddlers
 - 100-120 beats/minute
 - Newborns
 - 120-140 beats/minute
- Location
 - Carotid
 - Femoral
 - Radial
 - Brachial
 - Posterior tibial
 - Dorsalis pedis

Blood Pressure

- Hypertension or hypotension
- Shock – inadequate blood flow to the vital organs

- What is cardiac distress?
- What is cardiac arrest?

Sx of Shock

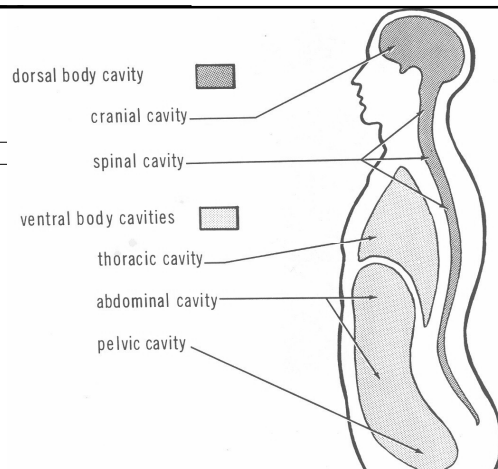
- Pale
- Cyanotic
- Cool skin
- Clammy skin
- Rapid pulse
- Rapid breathing
- Restlessness
- anxiety
- Nausea/vomiting
- Decreased bp
- Decreased temperature

Responsible for...

- Systems
 - Nervous
 - Musculoskeletal
 - Integumentary

Body Cavities – what organs are located in them?

- Cranial
- Spinal
- Thoracic
- Abdominal
- Pelvic



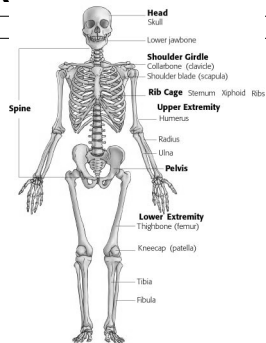
- The rest of this presentation should be review

The Skeletal System

- Three functions of skeletal system:
 1. Support body.
 2. Protect vital structures.
 3. Manufacture red blood cells.

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The Skeletal System



(2 of 2)

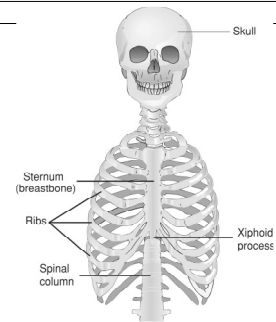
The Five Sections of the Spine

1. Cervical
2. Thoracic
3. Lumbar
4. Sacrum
5. Coccyx

Upper Extremity

- Consists of three major bones:
 1. Humerus
 2. Radius
 3. Ulna
- Wrist and hand consist of several bones.

The Rib Cage



Lower Extremity

- Consists of the thigh and leg
- Thighbone (femur) is the longest and strongest bone in the entire body.
- Kneecap (patella) is a flat bone that protects the front of the knee joint.

Joints

- Where two bones come in contact with each other
- Tendons and ligaments hold joints together.
- Three types of joints:
 1. Fused (skull)
 2. Hinge (knee, elbow)
 3. Ball-and-socket (shoulder)

The Muscular System

- Skeletal muscles: Provide movement, support
- Smooth muscles: Carry out automatic functions
- Cardiac muscle: Found only in the heart

The Nervous System

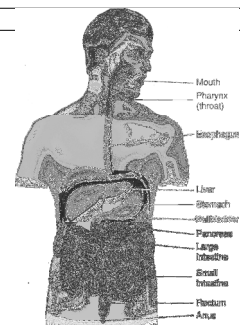
- Consists of brain, spinal cord, and individual nerves
- The brain controls all bodily functions.
- Spinal cord is communication system between brain and body.
- Nerves branch out from spinal cord to every part of the body.

The Digestive System

- Digestive tract is about 35 feet long.
- Digestive tract breaks down food, then carries it to cells of the body.
- Bile and insulin are very important in digestion of fats and sugars.

(1 of 2)

The Digestive System



(2 of 2)

The Skin

- Skin covers entire body and has three functions:
 1. Protection
 2. Temperature regulation
 3. Receiving information from the outside

The Skin

