

Musculoskeletal System

Function

- Provides form, stability & movement
- Bones protects organs, support bodyweights & gives the shape to the body
- Muscles are attached to bones which allows body movement

Made up of

- Bones
- Muscles
- Tendons
- Ligaments
- Joints
- Cartilages
- Connective tissues

Skeletal system

Axial skeleton:

- Skull: protects brain & facial structure
- Vertebral column: protects spinal cord & supports facial structure
- Thoracic cage: protects organs inside the chest. Eg: heart and lungs.

Appendicular skeleton

- Pectoral girdle (shoulders)
- Upper & lower limbs (arms & legs)
- Pelvic girdle (hips)

Others

- Joints: connects bone - bone, can be fixed, slightly moveable or movable
- Cartilage: shock absorber
- Ligaments: stabilizes joints

Musculoskeletal System (cont)

- Tendons: Connects bones to muscle
- Muscular system**
- Three types of muscle:
 - Skeletal: voluntary & striated, provides movement
 - Smooth: involuntary & non-striated, found in organs
 - Cardiac: involuntary & striated, the heart

Musculoskeletal diseases

Osteoporosis

- Loss of bone mass
- Occurs when creation of new bones can't keep up
- Bone becomes weak and brittle

Osteoarthritis

- Most common form of arthritis
- Occurs when cartilage wears down over time
- Produces pain, loss of flexibility in joints, etc.

Sprain

- Stretch or tear of ligaments

Dislocation

- The position of bone is forced to move from original place

Fracture

- Break in the bone
- Bone cancer**
- Cancerous cell grows & destroys normal bone tissue.

Muscular dystrophy

- Progressive weakness & loss of muscle mass.

Digestive system

Functions

- Ingestion: consuming food
- Digestion: mechanical & chemical break down of molecules
- Absorption: nutrients absorbed in small intestine and water in large intestine
- Elimination: disposing non-digested food

Consists of

- Oral cavity: ingesting food through mechanical & chemical digestion
- Pharynx: transition from mouth to esophagus
- Epiglottis: cartilage that seals windpipe during eating
- Esophagus: moves food downwards by peristalsis (swallowing)
- Stomach: breakdown of food by acids & enzymes -> turns into a liquid called chyme
- Small intestine: *duodenum* is the first segments & takes it down further, *jejunum* & *ileum* absorbs nutrients into the bloodstream by the intestine's wall
- Large intestine: absorbs water & then helps with the elimination process
- Rectum: holds the stool

Digestive system (cont)

- Anal: controls whether it releases it or holds it
- Accessory organs**
- Liver: produces bile for fat digestion, & filters toxins & chemicals
- Gall bladder: bile is stored & released when fatty food is absorbed
- Pancreas: releases digestive enzymes into the duodenum to help digest fats, protein and carbs

Digestive system diseases

Gastritis

- Inflammation, irritation or resection in the stomach's lining
- Caused by bacterial infection & can be spread from person - person
- Signs & symptoms are abdominal pain, nausea, loss of appetite, frequent burping, bloating & weight loss.
- Treatment: antibiotics & acid suppressing drugs

Colitis

- Inflammation and ulcers in the digestive tract
- Caused by weak immune system, diet & stress
- Signs & symptoms are diarrhea, abdominal pain, rectal bleeding, weight loss, fatigue & fever
- Treatment: drugs or surgery

Appendicitis

- Inflammation of appendix



Digestive system system diseases (cont)

- Caused by infection in the appendix because of a blockage in the lining
- Signs & symptoms are pain in lower right abdomen, nausea, vomiting, loss of appetite, fever, constipation, diarrhea & abdominal bloating
- Treatment: surgery

Hepatic

- Late stage of scarring of the liver.
- Caused by many forms of liver diseases & conditions
- Signs & symptoms are fatigue, easy bleeding & bruising, swelling in the lower extremities, weight loss, jaundice, fluid accumulation in abdomen, spiderlike blood vessel & redness in palms
- Treatment: depends on the severity

Gallstones

- Hardened deposits of digestive fluids in gallbladder
- Caused by too much cholesterol in bile, excess bilirubin or gallbladder doesn't empty correctly
- Signs & symptoms are sudden intense pain in upper right abdomen, back pain, nausea or vomiting
- Treatment: surgery

Stomach cancer

- Cancer cell in stomach

Digestive system system diseases (cont)

- Caused by cancerous cell in the stomach
- Signs & symptoms are difficulty in swallowing, bloating, heartburn, nausea, stomach pain, weight loss
- Treatment: surgery, chemotherapy, radiation therapy

Pancreatic cancer

- Cancer in pancreas
- Caused by cancerous cells in the pancreas
- Signs & symptoms are abdominal pain, weight loss, jaundice, light colored stools, dark coloured urine, blood clots & fatigue
- Treatment: surgery, chemotherapy, radiation therapy

Respiratory system

Functions

- Pulmonary Ventilation (

