


Terminology in Health Care
and Public Health Settings

Unit 3
Musculoskeletal System

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Musculoskeletal System
Overview


- Muscular components
 - Muscles
- Skeletal components
 - Bones of the skeleton
 - Joints



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Musculoskeletal System
Overview

- Functions
 - Internal framework of body
 - Supports body
 - Protects internal organs
 - Produces body movement



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Musculoskeletal System

- Bones are connected to each other to form **skeleton**
 - Framework for the body
 - 206 bones
- **Joint**
 - Place where two bones meet
 - Held together by **ligaments**
 - Gives flexibility to skeleton
- Muscles are connected to the skeleton

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Myopathy

- Myopathy can cause weakness, pain or even paralysis.
- Some causes include
 - Injury or overuse, such as sprains or strains, cramps or tendinitis
 - Genetics, such as muscular dystrophy
 - Some cancers
 - Inflammation
 - Diseases of nerves that affect muscles
 - Infections
 - Certain medicines

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Myositis

- Inflammation of your skeletal muscles
- Common causes can be an injury, infection or autoimmune disease.
 - Polymyositis causes muscle weakness, usually in the muscles closest to the trunk of your body.
 - Dermatomyositis causes muscle weakness, plus a skin rash.
 - Both diseases are usually treated with prednisone, a steroid medicine, and sometimes other medicines.

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Muscular dystrophy

- Cause muscle weakness and muscle loss.
- Some appear in infancy or childhood, while others may not appear until middle age or later.
- The person's muscles get weaker.
- Most eventually lose the ability to walk.
- There is no cure.
- Treatments include physical and speech therapy, orthopedic devices, surgery and medications.

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Muscular System Combining Forms

- muscul/o muscle muscular
- my/o muscle myopathy
- myocardi/o heart muscle myocardium
- tend/o tendon tendoplasty

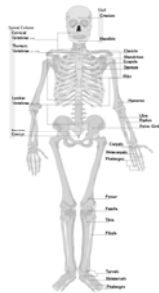
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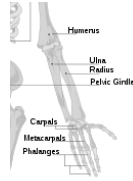
The Spinal (Vertebral) Column

- Divided into five sections
 - **Cervical**
 - **Thoracic**
 - **Lumbar**
 - **Sacrum**
 - **Coccyx**



Upper Extremity

- Arm
- Consists of:
 - **Humerus** – upper arm
 - **Ulna** – part of forearm
 - **Radius** – part of forearm
 - **Carpals** – wrist bones
 - **Metacarpals** – hand bones
 - **Phalanges** – finger bones



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Lower Extremity

- Leg
- Consists of:
 - **Femur** – thigh bone
 - **Patella** – knee cap
 - **Tibia** – shin bone
 - **Fibula** – lower leg bone
 - **Tarsals** – ankle bones
 - **Metatarsals** – foot bones
 - **Phalanges** – toe bones



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Fractures

- Types of fractures
 - Open or compound fracture.
 - Closed fracture.
 - Stress fracture.
- Common causes due to car accidents, fall or sports injuries.
- Another cause is osteoporosis, which causes weakening of the bones.

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Arthritis

- Means joint inflammation.
- Although it describes a symptom or sign rather than a specific diagnosis, it is often used to refer to any disorder that affects the joints.
- Arthritis is characterized by pain, swelling, inflammation, and stiffness.

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Osteoporosis

- Makes your bones weak and more likely to break.
- Common in older women.
- Risk factors include
 - Getting older
 - Being small and thin
 - Having a family history of osteoporosis
 - Taking certain medicines
 - Being a white or Asian woman
 - Having osteopenia, which is low bone mass

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Skeletal System Combining Forms

- | | | |
|-------------|----------|----------------|
| • arthr/o | joint | arthritis |
| • carp/o | wrist | carpal |
| • cervic/o | neck | cervical |
| • crani/o | skull | craniotomy |
| • oste/o | bone | osteopathy |
| • thorac/o | chest | thoracic |
| • vertebr/o | vertebra | intervertebral |

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