

Study Guide — HBS Unit 1: Road to Rehabilitation (Pretest)

Human Body Systems · Unit 1 — Road to Rehabilitation · Modeled on the PLTW Guided Review format

Vocabulary to know cold

Term	Definition
Oste/o	Combining form meaning bone (osteology, osteoporosis).
My/o	Combining form meaning muscle (myalgia, myocardium).
Arthr/o	Combining form meaning joint (arthritis, arthroscopy).
Proximal	Nearer to the trunk or point of attachment of a limb.
Distal	Farther from the trunk or point of attachment of a limb.
Flexion	Movement that decreases the angle of a joint.
Extension	Movement that increases the angle of a joint.
Fracture	A break in a bone.
Sprain	A stretch or tear of a ligament (bone-to-bone connector).
Strain	A stretch or tear of a muscle or tendon.
Tendon	Connective tissue attaching muscle to bone.
Ligament	Connective tissue attaching bone to bone.
Range of motion (ROM)	The degree of movement possible at a joint, measured in rehabilitation.

Worked examples (follow the reasoning)

Example 1. A patient is described as having pain at the 'distal end of the femur.' Where on the body is this, and what does the terminology tell you?

- Identify 'femur' = the thigh bone (long bone of the upper leg).
- Recall 'distal' = farther from the point of attachment to the trunk.
- The femur attaches to the trunk at the hip, so the distal end is the lower end, near the knee.
- Conclude: pain is at the lower femur, just above the knee joint.

Answer: The lower end of the thigh bone, near the knee.

Example 2. Decode the medical term 'arthr/itis' and identify the structure involved and the type of injury context.

- Break the term into parts: arthr/o (root) + -itis (suffix).
- 'Arthr/o' means joint.
- The suffix '-itis' means inflammation.
- Combine: inflammation of a joint.

Answer: Arthritis = inflammation of a joint.

Practice questions (with reasoning)

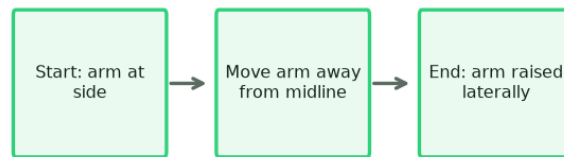
1. Which combining form would you use to describe a condition of the joints?

- A. My/o
- B. Oste/o
- C. Arthr/o
- D. Neur/o

Answer: C. 'Arthr/o' means joint, so a joint condition uses this root.

2. Raising your arm straight out to the side, away from the midline, is called:

Abduction of the arm



- A. Adduction
- B. Abduction
- C. Flexion
- D. Rotation

Answer: B. Abduction moves a limb away from the midline; adduction moves it toward the midline.

3. An athlete tears a ligament in the ankle. This injury is best classified as a:

- A. Strain
- B. Fracture
- C. Sprain
- D. Dislocation

Answer: C. Ligament injuries are sprains; muscle/tendon injuries are strains.

4. Which plane would divide the body into front (anterior) and back (posterior) sections?

- A. Sagittal
- B. Transverse
- C. Frontal (coronal)
- D. Midsagittal

Answer: C. The frontal/coronal plane separates anterior from posterior.