### **CONCEPT: JOINTS AND MOVEMENTS**

### **Types of Joints**

◆ Joints (Articulations): contact point between \_\_\_\_ or more bones which are held together by *ligaments*.

• Ligaments: strong bands of \_\_\_\_\_ tissue.

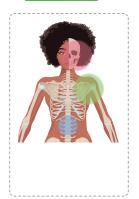
◆ There are \_\_\_\_ joint classes based on amount of \_\_\_\_\_ allowed.

1. Synarthrosis: \_\_\_\_till or \_\_\_\_tationary joint with \_\_\_\_ movement.

t. **Recall:** arthr/o = joint

2. Amphiarthrosis: a slightly moveable joint with \_\_\_\_ little or "\_\_\_verage" movement.

**3. Diarthrosis:** \_\_\_\_ynamic and freely moveable joint.









#### **EXAMPLE**

Rheumatoid arthritis is a chronic autoimmune disease causing pain when joints move. Which joint type is most likely affected?

a) Amphiarthrosis

c) Diarthrosis

b) Synarthrosis

d) All three types

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### **Joint Movements**

◆ Terms describing movements at \_\_\_arthroses (freely moveable) joints.

Movement	Description	Illustration
Abduction ab- = away from	Moving body part from midline.	
Adduction  ad- = towards	Moving body part	
au- – towarus	midline.	
<b>Flexion</b> flex/o = to	Bending a joint.	
<b>Extension</b> extens/o =  out	Straightening a joint.	
Dorsiflexion dors/o = behind	Bending <i>ankle</i> wards.	
Plantar Flexion plant/o = of foot	Bending <i>ankle</i> in direction of sole of foot.	
Inversion in- =ward	Turning sole of foot inward.	( )
<b>Eversion</b> e- =ward	Turning sole of foot outward.	

Movement	Description	Illustration
Pronation prone- = face down	Turning palm or footward.	
Supination supine = face up	Turning palm or footward.	
Protraction pro- = before,	Moving body part forward.	Cir.
<b>Retraction</b> re- =	Moving body part backwards.	
Circumduction	Moving body part in  motion.	Jos.
Rotation	Turning body part around axis.	

### **EXAMPLE**

Which of the following best describes protraction and retraction?

- a) Protraction is bending a joint, while retraction is retracting a joint.
- b) Protraction is moving a joint upwards, while retraction is moving a joint downwards.
- c) Protraction is moving body part away from midline, while retraction is moving it towards the midline.
- d) Protraction is moving body part anteriorly, while retraction is moving body part posteriorly.

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# PRACTICE

Match each description with the correct joint movement.

1. Movement decreases angle between two bones at a joint.	
2. Turning foot so that sole is pointing outward.	
3. Pulling top of foot upward towards the shin.	
4. Turning forearm upwards.	

- a) Eversion
- b) Supination
- c) Dorsiflexion
- d) Flexion
- e) Circumduction