

## Role of the Athletic First Aider (Sport Trainer)

Prevent Injuries - this is the primary role of the trainer

Never let minor injuries become **major** ones

When in doubt – refer out!!  
– know your limits

Some other attributes that will make you a successful sport trainer:

- Know your sport - what basic skills are an integral part of the sport, in a game situation what are the specific jobs of each player, what equipment is needed, what inherent risks does this sport have, do you know the rules of the sport, etc?
- Be professional - look and act the part. A sport trainer is considered a valuable member of the team.
- Be prepared - have your kit, your equipment and supplies all ready.
- Be reliable - the rest of the team is there - you should be too!
- Be responsible - for your actions and your work - the players are depending on you.
- Communicate - constantly - with players and the coaching staff.
- Maintain control - you may see injuries that are "gross," but it is your job to care for the athlete and not let something minor become major!

## Sports Medicine 15

### The Body in Motion

So far, we've learned about some general body movements:

- Flexion
- Extension
- Plantarflexion
- Dorsiflexion
- Abduction
- Adduction
- External rotation
- Internal rotation
- Supination
- Pronation

Within this assignment, you will see some sports that use a variety and range of body movements to play. Your task is to look at each sport listed and “zone in” on the body parts listed beside them. Next, write & explain as many of the body movements that would be used to move the specific part of the body listed in that specific sport.

Soccer → [KNEES/LEG]



Football (placekicker) → [ANKLE/FOOT]



Gymnastics → [HIP/LEG]



Baseball (pitcher) → [SHOULDER/ARM]



Swimming (front stroke) → [ANKLE/FOOT]



Synchronized swimming → [HIP/LEG]



Basketball (foul shot) → [WRIST/ARM]



Tennis → [SHOULDER/ARM]



Ballet → [ANKLE/FOOT]



The **axial skeleton**, the principal supportive structure of the body, is oriented along its median longitudinal axis. It includes the skull, vertebrae, sternum, ribs, and hyoid bone. Much of the mobility of the torso is due to the multiple articulations throughout the vertebral column.

The **appendicular skeleton** includes the pectoral and pelvic girdles and the bones of the arms, forearms, wrists, hands, thighs, legs, and feet. The joints of the appendicular skeleton make possible a considerable degree of freedom of movement for the upper and lower limbs. Fractures and dislocations are more common in this part of the skeleton, but often more serious in the axial skeleton.

### **CLASSIFICATION OF BONES**

Bones have a variety of shapes and defy classification by shape; yet such a classification historically exists. **Long bones** are clearly longer in one axis than in another; they are characterized by a medullary cavity, a hollow diaphysis of compact bone, and at least two epiphyses (e.g., femur, phalanx). **Short bones** are roughly cube-shaped; they are predominantly cancellous bone with a thin cortex of compact bone and have no cavity (e.g., carpal and tarsal bones). **Flat bones** (cranial bones, scapulae, ribs) are generally more flat than round. **Irregular bones** (vertebrae) have two or more different shapes. Bones not specifically long or short go into this latter category.

**Sesamoid bones** are developed in tendons (e.g., patellar tendon); they are mostly bone, often mixed with fibrous tissue and cartilage. They have a cartilaginous articular surface facing an articular surface of an adjacent bone; they may be part of a synovial joint ensheathed within the fibrous joint capsule. The structures are generally pea-sized and are most commonly found in certain tendons/joint capsules in hands and feet, and occasionally in other articular sites of the upper and lower limbs. The largest sesamoid bone is the patella, integrated in the tendon of the quadriceps femoris. Sesamoid bones resist friction and compression, enhance joint movement, and may assist local circulation.

# SKELETAL & ARTICULAR SYSTEMS

## AXIAL / APPENDICULAR SKELETON

CN: Use light but contrasting colors for A and B. (1) Color the axial skeleton, A, in all three views. Do not color the intercostal spaces between the ribs. (2) Color the darker, outlined appendicular skeleton, B. (3) Color the arrows identifying bone shape/classification, B. (3) Color the arrows identifying bone shape/classification.

**AXIAL SKELETON<sup>A</sup>**  
**APPENDICULAR SKELETON<sup>B</sup>**

### CLASSIFICATION OF BONES

**LONG<sub>c</sub>**  
**SHORT<sub>b</sub>**  
**FLAT<sub>e</sub>**  
**IRREGULAR<sub>f</sub>**  
**SESAMOID<sub>g</sub>**

