

The Human Body: Skeletal & Muscular Systems

Classroom Study Guide | How the body moves, responds to injury and heals

Movement begins when the nervous system signals a skeletal muscle to contract. A tendon transfers the pulling force to a bone, and the bone moves at a joint. Muscles usually work in coordinated groups.

Major muscle groups

Pectorals: move the arms across the chest. **Deltoids:** help lift the arms. **Biceps:** bend the elbow. **Triceps:** straighten the elbow. **Abdominals:** stabilize the trunk. **Quadriceps:** straighten the knee. **Hamstrings:** bend the knee. **Calf muscles:** help point the foot.

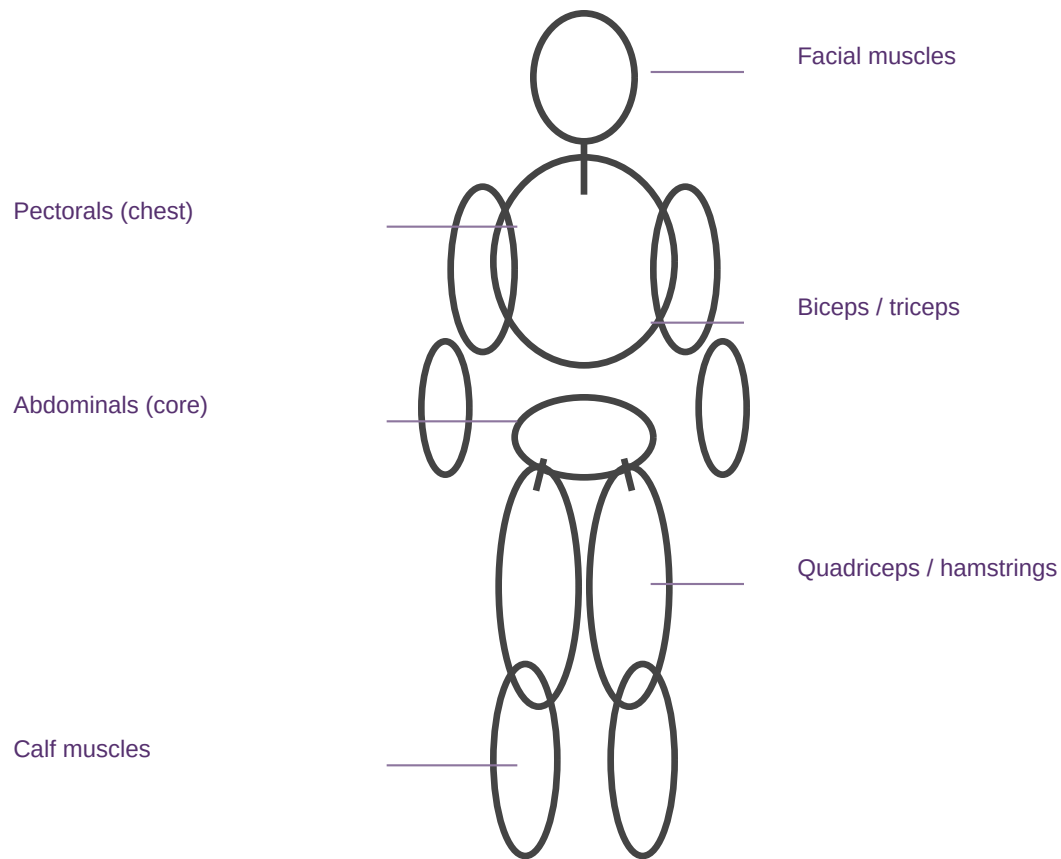
Injury awareness and domestic violence

Physical assault may cause bruises, sprains, fractures, muscle injuries, head injuries and internal injuries. Some serious injuries have few visible signs. Neck compression or strangulation can cause delayed, life-threatening complications even without marks; urgent emergency medical assessment is important after such an event.

Recovery and prevention

Appropriate rest, nutrition, rehabilitation and clinician-guided treatment support healing. Avoid forcing painful movement or attempting to diagnose injuries in class. Seek urgent medical care for trouble breathing, loss of consciousness, severe headache after head injury, weakness, or significant neck injury.

Labeled muscular system diagram



Simplified front-view learning diagram (not to anatomical scale)

Classroom questions

1. What role do tendons play in movement? 2. Name three major muscle groups and their functions. 3. Why might a person need medical evaluation even without visible bruises?

Discussion: What supportive, nonjudgmental steps can an advocate take when someone reports pain after an assault?

Instructor note: Educational content only; not medical diagnosis or treatment. If immediate danger exists, call 911.