



STUDENT RESOURCE

Trail Guide to Movement, 2nd edition

Glossary by Chapter

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CHAPTER 2 – THE ESSENTIALS OF MOVEMENT

balance: the even distribution of weight (p. 16)

coordination: the organization of different elements (p. 16)

dynamics: aspects of moving systems (p. 14)

kinematics: the analysis of movement in terms of mechanical elements (p. 14)

kinesiology: the study of movement (p. 14)

kinetic chain: a movement pattern's predictable sequence (p. 17)

kinetics: the study of forces that act on the body to generate or alter motion (p. 15)

mobility: the ability to move (p. 15)

proportion: corresponding in size to something else (p. 18)

stability: the ability to be firmly fixed or supported (pp. 14–16)

statics: aspects of nonmoving (or virtually nonmoving) systems (p. 14)

symmetrical: comprised of exactly similar parts facing each other (p. 18)

CHAPTER 3 – CONNECTIVE TISSUE, PART 1

cell: the basic structural, functional, and biological unit of all known living organisms (p. 23)

collagen fiber: a group of naturally occurring proteins found in animals, especially in the flesh and connective tissues of vertebrates (pp. 23–27)

colloidal: a property whereby a material is composed of solid particles suspended in fluid (p. 28)

creep: a gradual change in shape that occurs when tissues are subjected to a slow, continuous force from either compression, tension, or twisting (p. 26)

elastic: the capacity to recoil or rebound to an original length (or shape) after being stretched (or deformed) (p. 26)

elasticity: a muscle's ability to return to its original length and shape after it is shortened or lengthened (p. 26)

elastin fiber: a protein in connective tissue that is elastic and allows many tissues in the body to resume their shape after stretching or contracting (p. 24)

extracellular matrix: the part of animal tissue that usually provides structural support to the animal cells in addition to performing various other important functions (pp. 22–24)

fascial tissue: the body's sheets, cables, conduits, and paddings, composed of loose or dense connective tissue (p. 31)

fibroblast: a type of cell that synthesizes the extracellular matrix and collagen (p. 23)

ground substance: an amorphous gel-like substance surrounding cells; formed by the nonfibrous components of the extracellular matrix (p. 22-24)

macrophage: a large cell found in stationary form in the tissues or as a mobile white blood cell (p. 23)

myofascial unit: the combined muscular and fascial elements that comprise a muscle belly and its tendons (p. 27)

osteoblast: a cell responsible for bone formation (p. 23)

piezoelectric effect: the production of electricity or electric polarity by applying a mechanical stress to certain crystals (p. 28)

plasticity: the capacity to be altered and retain that new configuration (p. 26)

reticular fiber: a type of fiber in connective tissue composed of collagen secreted by reticular cells (pp. 23–24)

stretch: the ability to lengthen without being damaged or injured (p. 26)

tensile strength: the ability to be pulled in two different directions without damage (p. 27)

thixotropic: a quality that responds to changes in temperature (or other disturbances, such as pressure) by transforming from a gel to a liquid and vice versa (p. 27)

CHAPTER 4 – CONNECTIVE TISSUE, PART 2

aponeurosis: a broad, flat tendon that attaches to the end of a muscle (pp. 43–44)

appendicular skeleton: the portion of the skeleton composed of the arms and legs, pectoral girdle (scapulae and clavicles), and pelvic girdle (hips) (p. 36)

axial skeleton: the skeleton's center including the cranium, vertebral column, ribs, sternum, and hyoid bone (p. 36)

compact bone: one of the two types of osseous tissue that form bones (p. 38)

elastic cartilage: a type of cartilage present in the outer ear, eustachian tube, and epiglottis (p. 40)

fascial tissue: the body's sheets, cables, conduits, and paddings, composed of loose or dense connective tissue (p. 41)

fibrocartilage: a mixture of white fibrous tissue and cartilaginous tissue in various proportions (p. 40)

hyaline cartilage: also known as articular cartilage, it is a type of cartilage found on many joint surfaces (p. 40)

interosseous membrane: a broad and thin plane of fibrous tissue that separates two bones (p. 43)

joint capsule: the envelope surrounding a synovial joint (p. 43)

lever: a simple machine that can amplify an applied force (effort) by converting it into torque (p. 37)

ligament: a band of connective tissue that connects bones together (p. 44)

myofascial unit: the combined muscular and fascial elements that comprise a muscle belly and its tendons (p. 43)