

Skeletal System – Medical Terminology

Bone Structure

Term	Definition
Periosteum	Outermost layer of the bone, made up of fibrous tissue
Compact bone	Dense, hard layers of bone tissue that lie underneath the periosteum
Cancellous (spongy) bone	Contains little spaces like a sponge and is encased in the layers of compact bone
Endosteum	Membranous lining of the hollow cavity of the bone
Diaphysis	Shaft of the long bones
Epiphysis (<i>pl.</i> epiphyses)	Ends of the long bone
Bone marrow	Material found in the cavities of bones
Red marrow	Thick, blood-like material found in the flat bones and the ends of long bones. Location of cell formation
Yellow marrow	Soft, fatty material found in the medullary cavity of long bones

Skeletal Bones

Term	Definition
Maxilla	Upper jawbone
Mandible	Lower jawbone
Vertebral column	Made up of bones called <i>vertebrae (pl.)</i> or <i>vertebra (sing.)</i> through which the spinal cord runs. The vertebral column protects the spinal cord, supports the head, and provides a point of attachment for ribs and muscles
Cervical vertebrae (C1 to C7)	First set of seven bones, forming the neck
Thoracic vertebrae (T1 to T12)	Second set of 12 vertebrae; they articulate with the 12 pairs of ribs to form the outward curve of the spine
Lumbar vertebrae (L1 to L5)	Third set of five larger vertebrae, which forms the inward curve of the spine
Sacrum	Next five vertebrae, which fuse together to form a triangular bone positioned between the two hip bones
Coccyx	Four vertebrae fused together to form the tailbone
Lamina (<i>pl.</i> laminae)	Part of the vertebral arch
Clavicle	Collarbone
Scapula	Shoulder blade
Acromion	Extension of the scapula, which forms the high point of the shoulder
Sternum	Breastbone
Xiphoid process	Lower portion of the sternum
Humerus	Upper arm bone
Ulna and radius	Lower arm bones
Carpal bones	Wrist bones

Metacarpal bones	Hand bones
Phalanges (<i>sing.</i> Phalanx)	Finger and toe bones
Pelvic bone, hip bone	Made up of three bones fused together
Ischium	Lower, rear position on which one sits
Ilium	Upper, wing-shaped part on each side
Pubis	Anterior portion of the pelvic bone
Acetabulum	Large socket in the pelvic bone for the head of the femur
Femur	Upper leg bone
Tibia and fibula	Lower leg bone
Patella (<i>pl.</i> patellae)	Kneecap
Tarsal bones	Ankle bones
Calcaneus	Heel bone
Metatarsal bones	Foot bones

Joints

Term	Definition
Articular cartilage	Smooth layer of gristle covering the contacting surface of joints
Meniscus	Crescent-shaped cartilage found in the knee
Intervertebral disk	Cartilaginous pad found between the vertebrae in the spine
Pubic symphysis	Cartilage joint at which two pubic bones fuse together
Synovia	Fluid secreted by the synovial membrane and found in joint cavities
Bursa (<i>pl.</i> bursae)	Fluid-filled sac that allows for easy movement of one part of a joint over another
Ligament	Flexible, tough band of fibrous connective tissue that attaches one bone to another at a joint
Tendon	Band of fibrous connective tissue that attaches muscle to bone
Aponeurosis	Strong sheet of tissue that acts as a tendon to attach muscles to bone

Muscles

Term	Definition
Skeletal muscle (also known as <i>striated muscles</i>)	Attached to bones by tendons and make body movement possible. Skeletal muscles produce action by pulling and by working in pairs. Also known as <i>voluntary muscles</i> because we have control over these muscles.
Smooth muscles (also known as <i>unstriated muscles</i>)	Located in internal organs such as the walls of blood vessels and the digestive tract. They are also called <i>involuntary muscles</i> because they respond to impulses from the autonomic nerves and are not controlled voluntarily
Cardiac muscles (known as <i>myocardium</i>)	Forms most of the wall of the heart. Its involuntary contraction produces the heartbeat

Types of Body Movements

Term	Definition
Abduction	Movement of drawing away from the middle
Adduction	Movement of drawing toward the middle
Inversion	Turning inward
Eversion	Turning outward
Extension	Movement in which a limb is placed in a straight position
Flexion	Movement in which a limb is bent
Pronation	Movement that turns the palm down
Supination	Movement that turns the palm up
Rotation	Turning around its own axis

Combining Forms of the Musculoskeletal System

Combining Form	Definition
Carp/o	Carpals (wrist bones)
Clavic/o, clavicul/o	Clavicle (collarbone)
Cost/o	Rib
Crani/o	Cranium (skull)
Femor/o	Femur (upper leg bone)
Fibul/o	Fibula (lower leg bone)
Humer/o	Humerus (upper arm bone)
Ili/o	Ilium
Ischi/o	Ischium
Lumb/o	Loin, lumbar region of the spine
Mandibul/o	Mandible (lower jawbone)
Maxill/o	Maxilla (upper jawbone)
Patell/o	Patella (kneecap)
Pelv/l, pelv/o	Pelvis, pelvic bone
Phalang/o	Phalanges (finger or toe bones)
Pub/o	Pubis
Rachi/o	Spine, vertebral column
Radi/o	Radius (lower arm bone)
Sacr/o	Sacrum
Scapula/o	Scapula (shoulder blade)
Spondyl/o, vertebr/o	Vertebra
Stern/o	Sternum (breast bone)
Tars/o	Tarsals (ankle bones)
Tibi/o	Tibia (lower leg bones)
Uln/o	Ulna (lower arm bone)

Combining Forms for Joints

Combining Form	Definition
Aponeur/o	Aponeurosis
Arthr/o	Joint
Burs/o	Bursa (cavity)
Chondr/o	Cartilage
Disk/o	Intervertebral disk
Menisc/o	Meniscus (crescent)
Synovi/o	Synovia, synovial membrane
Ten/o, tend/o, tendin/o	Tendon

Combining Form Commonly Used with Musculoskeletal System Terms

Combining Form	Definition
Ankyl/o	Crooked, stiff, bent
Kinesi/o	Movement, motion
Kyph/o	Hump
Lamin/o	Lamina (thin, flat plate or layer)
Lord/o	Bent forward
Myel/o	Bone marrow
My/o, myos/o	Muscle
Oste/o	Bone
Petr/o	Stone
Scoli/o	Crooked, curved

Prefixes

Prefix	Definition
Inter-	Between
Supra-	Above
Sym-, syn-	Together, joined

Suffixes

Suffix	Definition
-asthenia	Weakness
-clasia, -clasis, -clast	Break
-desis	Surgical fixation, fusion
-physis	Growth
-schisis	Split, fissure

Disease and Disorders – Built from Word Parts

Term	Definition
Ankylosis	Abnormal condition of stiffness (often referring to a joint, such as the result of chronic rheumatoid arthritis)
Arthritis	Inflammation of a joint
Arthrochondritis	Inflammation of joint cartilages
Bursitis	Inflammation of a bursa
Bursolith	Stone in a bursa
Carpoptosis	Drooping wrist (wristdrop)
Chondromalacia	Softening of cartilage
Cranioschisis	(congenital) fissure of the skull
Diskitis	Inflammation of an (intervertebral) disk
Fibromyalgia	Pain in the fibrous tissue and muscles
Kyphosis	Abnormal condition of a hump (of the thoracic spine)
Lordosis	Abnormal condition of bending forward (forward curvature of the lumbar spine)
Maxillitis	Inflammation of the maxilla
Meniscitis	Inflammation of a meniscus
Myasthenia	Muscle weakness
Myeloma	(malignant) tumor of the bone marrow
Osteitis	Inflammation of the bone
Osteoarthritis (OA)	Inflammation of the bone and joint
Osteocarcinoma	Cancerous tumor of the bone
Osteochondritis	Inflammation of the bone and cartilage
Osteofibroma	Tumor of the bone and fibrous tissue
Osteomalacia	Softening of bones
Osteomyelitis	Inflammation of the bone and bone marrow
Osteopetrosis	Abnormal condition of stonelike bones
Osteosarcoma	Malignant tumor of the bone
Polymyositis	Inflammation of many muscles
Rachischisis	(congenital) fissure of the vertebral column (also called <i>spina bifida</i>)
Scoliosis	Abnormal (lateral) curve of the spine
Spondylarthritis	Inflammation of the vertebral joints
Synoviosarcoma	Malignant tumor of the synovial membrane
Tendinitis	Inflammation of a tendon
Tenodynia	Pain in a tendon
Tenosynovitis	Inflammation of the tendon and synovial membrane

Disease and Disorders – Not built from Word Parts

Term	Definition
Ankylosing spondylitis	Form of arthritis that first affects the spine and adjacent structures, and that, as it progresses, causes a forward bend of the spine
Bunion	Abnormal enlargement of the joint at the base of the great toe.
Carpal tunnel syndrome	A common, painful disorder of the wrist caused by a compression of a nerve
Colles fracture	A type of wrist fracture. The fracture is at the lower end of the radius, the distal fragment being displaced backward
Exostosis	Abnormal benign growth on the surface of a bone
Fracture	Broken bone
Gout	Disease in which an excessive amount of uric acid in the blood causes sodium urate crystals to be deposited in the joints, especially that of the great toe
Herniated disk	Rupture of the intervertebral disk cartilage, which allows the contents to protrude through it, putting pressure in the spinal nerve roots
Muscular dystrophy	Group of hereditary diseases characterized by degeneration of muscle and weakness
Myasthenis gravis	Chronic disease characterized by muscle weakness and thought to be caused by a defect in the transmission if impulses from nerve to muscle cell.
Osteoporosis	Abnormal loss of bone density occurring frequently in postmenopausal women
Rheumatoid arthritis	A chronic systemic disease characterized by autoimmune inflammatory changes in the connective tissue throughout the body

Surgical Terms

Term	Definition
Aponeurorrhaphy	Suture of an aponeurosis
Arthroclasia	(surgical) breaking of a stiff joint
Arthrodesis	Surgical fixation of a joint
Arthroplasty	Surgical repair of a joint
Bursectomy	Excision of a bursa
Carpectomy	Excision of a carpal bone
Chondrectomy	Excision of a cartilage
Chondroplasty	Surgical repair of a cartilage
Costectomy	Excision of a rib
Cranioplasty	Surgical repair of the skull
Craniotomy	Incision of the skull
Diskectomy	Excision of an intervertebral disk
Laminectomy	Excision of a lamina
Maxillectomy	Excision of the maxilla
Meniscectomy	Excision of the meniscus (performed for a torn cartilage)
Myorrhaphy	Suture of a muscle

Ostectomy	Excision of bone
Osteoclasia	(surgical) breaking of a bone to correct a deformity
Patellectomy	Excision of the patella
Phalangectomy	Excision of a finger or toe bone
Rachiotomy	Incision into the vertebral column
Spondylosyndesis	Fusing together of the vertebrae
Synovectomy	Excision of the synovial membrane
Tarsectomy	Excision of tarsal bones
Tenomyoplasty	Surgical repair of the tendon and muscle
Tenorrhaphy	Suture of a tendon
Vertebroplasty	Surgical repair of the vertebra

Diagnostic Terms

Term	Definition
Arthrography	x-ray imaging a joint
Arthroscopy	Visual examination of a joint
Arthrocentesis	Surgical puncture of a joint to aspirate fluid
Electromyogram	Record of the electrical activity in a skeletal muscle

Complementary Terms – Built from Word parts

Term	Definition
Arthralgia	Pain in the joint
Atrophy	Without development
Bradykinesia	Slow movement
Carpal	Pertaining to the wrist
Cranial	Pertaining to the cranium
Dyskinesia	Difficult movement
Dystrophy	Abnormal development
Femoral	Pertaining to the femur
Humeral	Pertaining to the humerus
Hyperkinesia	Excessive movement
Hypertrophy	Excessive development
Iliofemoral	Pertaining to the ilium and femur
Intercostal	Pertaining to between the ribs
Intervertebral	Pertaining to between the vertebrae
Intracranial	Pertaining to within the cranium
Ischiofibular	Pertaining to the ischium and fibula
Ischiopubic	Pertaining to the ischium and pubis
Lumbar	Pertaining to the loins
Lumbocostal	Pertaining to the loins and the ribs
Lumbosacral	Pertaining to the lumbar regions and the sacrum
Osteoblast	Developing bone cell

Osteocyte	Bone cell
Osteonecrosis	Abnormal death of bone
Pelvic	Pertaining to the pelvis
Pelvisacral	Pertaining to the pelvis and the sacrum
Pubofemoral	Pertaining to the pubis and femur
Sacral	Pertaining to the sacrum
Sacrovertebral	Pertaining to the sacrum and vertebrae
Sternoclavicular	Pertaining to the sternum and clavicle
Steroid	Resembling the sternum
Subcostal	Pertaining to below the rib
Submandibular	Pertaining to below the mandible
Submaxillary	Pertaining to below the maxilla
Subscapular	Pertaining to below the scapula
Substernal	Pertaining to below the sternum
Suprascapular	Pertaining to above the scapula
Suprapatellar	Pertaining to above the patella
Symphysis	Growing together
Vertebrocostal	Pertaining to the vertebrae and ribs

Abbreviations

Abbreviation	Definition
C1-C7	Cervical vertebrae
CTS	Carpal tunnel syndrome
EMG	Electromyogram
fx	Fracture
HNP	Herniated nucleus pulposus
L1-L5	Lumbar vertebrae
MD	Muscular dystrophy
MG	Myasthenia gravis
OA	Osteoarthritis
ortho	Orthopedics
RA	Rheumatoid arthritis
T1-T12	Thoracic vertebrae