

Bones and Bony Landmarks (MANA 103)

| | | |
|---------------------------------|---------------------------------|-----------------------------------|
| Frontal bone | Pubis | Bases/heads/metatarsals 1-5 |
| Parietal bone | Iliac fossa | Proximal phalanges 1-5 |
| Temporal bone | Iliac crest | Middle phalanges 1-5 |
| Zygomatic process | Sacroiliac joint | Distal phalanges 1-5 |
| Temporal process | Anterior superior iliac spine | Sustentaculum tali (talar shelf) |
| Occipital bone | Anterior inferior iliac spine | Calcaneal tuberosity |
| External occipital protuberance | Pubic tubercle | Navicular tuberosity |
| Superior nuchal line | Pubic crest | Styloid process base of 5th MT |
| Nuchal ligament | Pubic symphysis | Greater tubercle |
| Spinous processes | Sacrum | Bicipital groove |
| Transverse processes | Sacral tubercles | Lesser tubercle |
| Clavicle | Median sacral crest | Deltoid tuberosity |
| Conoid tubercle | Coccyx | Medial epicondyle of the humerus |
| Sternal end of clavicle | Coxal bone | Lateral epicondyle of the humerus |
| Acromial end of clavicle | Ischial tuberosity | Lateral supracondylar ridge |
| Mastoid process | Posterior superior iliac spine | Medial supracondylar ridge |
| Styloid process temporal bone | Sacral hiatus | Lateral humeral shaft |
| Manubrium | Sacral cornu | Medial humeral shaft |
| Sternum | Greater trochanter | Coronoid fossa |
| Sternal angle | Lesser trochanter | Olecranon fossa |
| Body of sternum | Femur | Capitulum |
| Inner mandible | Linea aspera | Trochlea |
| Angle of mandible | Gluteal tuberosity | Olecranon process |
| Ramus of mandible | Lateral epicondyle of the femur | Ulnar shaft (medial border) |
| Mandibular condyle | Medial epicondyle of the femur | Ulnar head |
| Maxilla | Adductor tubercle | Styloid process of the ulna |
| Coronoid process of mandible | Lateral condyle of the femur | Radial Head |
| Hyoid | Medial condyle of the femur | Radial Shaft (lateral border) |
| Greater cornu of hyoid | Apex of patella | Styloid process of the radius |
| Thyroid cartilage | Base of patella | Radial tuberosity |
| Ribs 1-12 | Patella | Radial notch |
| Xiphoid process | Lateral condyle of the tibia | Dorsal/Lister's tubercle |
| Costal cartilages | Medial condyle of the tibia | Scaphoid |
| Acromion process | Tibial tuberosity | Trapezium |
| Root of spine of the scapula | Anterior shaft of tibia | Capitate |
| Spine of scapula | Medial malleolus | Lunate |
| Superior angle of scapula | Lateral malleolus | Trapezoid |
| Inferior angle of scapula | Proximal tibiofibular joint | Triquetrum |
| Medial border of scapula | Distal tibiofibular joint | Hamate |
| Lateral border of scapula | Fibula | Pisiform |
| Infraspinous fossa | Head of fibula | Hook of Hamate |
| Supraspinous fossa | Calcaneus | Base/heads/metacarpals 1-5 |
| Subscapular fossa | Talus | Proximal phalanges 1-5 |
| Infraglenoid tubercle | Navicular | Middle phalanges 1-5 |
| Costal angle | Cuboid | Distal phalanges 1-5 |
| Ilium | Medial cuneiform | |
| Ischium | Intermediate cuneiform | |
| | Lateral cuneiform | |

Ligaments (MANA 103)

| | |
|---|---------------------------------------|
| Capsular ligament of the TMJ | Superior glenohumeral ligament |
| Lateral collateral ligament of the TMJ | Middle glenohumeral ligament |
| Nuchal ligament | Inferior glenohumeral ligament |
| Medial collateral ligament of the TMJ | Transverse humeral ligament |
| Sphenomandibular ligament of the TMJ | Coracohumeral ligament |
| Stylomandibular ligament of the TMJ | Coracoacromial ligament |
| Alar ligament | Ulnar/medial collateral (elbow) |
| Apical ligament | Radial/lateral collateral (elbow) |
| Transverse ligament of the AA joint | Annular ligament |
| Anterior longitudinal ligament | Anterior radioulnar ligament |
| Posterior longitudinal ligament | Posterior radioulnar ligament |
| Interspinous ligament | Radial collateral ligament (wrist) |
| Intertransverse ligament | Ulnar collateral ligament (wrist) |
| Ligamentum flavum | Palmar radiocarpal ligament |
| Facet joint capsule ligament | Palmar ulnocarpal ligament |
| Posterior atlantooccipital membrane | Dorsal radiocarpal ligament |
| Tectorial membrane | Dorsal ulnocarpal ligament |
| Radiate ligaments (costovertebral joints) | Transverse carpal ligament |
| Intra-articular ligaments (costovertebral joints) | Dorsal carpal ligament |
| Costotransverse ligaments | Radioscaphocapitate ligament |
| Intertransverse ligament | Long radiolunate ligament |
| Radiate sternocostal ligament | Short radiolunate ligament |
| Costoxiphoid ligament | Radioscapholunate ligament |
| Medial and lateral collateral interchondral ligaments | Ulnolunate ligament |
| Iliolumbar ligament | Ulnocapitate ligament |
| Dorsal sacroiliac ligaments | Intercarpal ligament |
| Sacrotuberous ligament | Pisohamate ligament |
| Inguinal ligament | Pisometacarpal ligament |
| Knee lateral collateral | Capitotriquetral ligament |
| Knee medial collateral | Palmar intercarpal ligament |
| Patellar ligament/tendon | Dorsal intercarpal ligament |
| Anterior talofibular | Palmar carpometacarpal ligament |
| Anterior talofibular | Dorsal carpometacarpal ligament |
| Posterior talofibular | Collateral ligaments (MCP joints) |
| Calcaneofibular | Deep transverse metacarpal ligaments |
| Deltoid ligament | Palmar (volar) ligaments (MCP joints) |
| | Collateral ligaments (IP joints) |
| | Palmar ligaments (IP joints) |

Joints (MANA 103)

| | |
|---|---|
| Atlanto-occipital joint | Talocrural |
| Atlanto-axial joint | Sub-Talar (talocalcaneal) |
| Cervical intervertebral joints / facet joints | Talo-calcaneo-navicular |
| Temporomandibular joint | Calcaneo-cuboid |
| Costocorporeal Joints | Mid-foot joints |
| Costotransverse Joints | Tarso-Metatarsal |
| Sternal costal joints (sternochondral) | Intermetatarsal |
| Interchondral joints | Metatarsophalangeal |
| Costochondral joints | Interphalangeal (foot) |
| Manubrium-sternal joint | Sternoclavicular joint |
| Xiphisternal joint | Acromioclavicular joint |
| Thoracic facet joints | Glenohumeral joint |
| Sacroiliac joint | Elbow joint |
| Acetabulofemoral joint | Proximal radioulnar joint |
| Knee | Distal radioulnar joint |
| Superior tibio-fibular joint | Radiocarpal joint |
| Inferior tibiofibular joint | Ulnocarpal joint |
| | Intercarpal joints |
| | Carpometacarpal joints |
| | Proximal interphalangeal joints of the hand |
| | Interphalangeal joints of the hand |
| | Distal interphalangeal joints of the hand |

| Muscles (MANA 203) | | |
|--|--|--|
| <p>Muscles of facial expression:</p> <p>Occipitofrontalis Temporoparietalis Auricularis group Orbicularis oculi Levator palpebrae superioris Corrugator supercilii Procerus Nasalis Depressor septi nasi Levator labii superioris alaeque nasi Levator labii superioris Zygomaticus minor Zygomaticus major Levator anguli oris Risorius Depressor anguli oris Depressor labii inferioris Mentalis Buccinator Orbicularis oris Platysma</p> | <p>Muscles of the TMJ:</p> <p>Temporalis Masseter Lateral pterygoid Medial pterygoid Digastric Mylohyoid Geniohyoid Stylohyoid Sternohyoid Sternothyroid Thyrohyoid Omohyoid</p> | <p>Muscles of the Anterior Neck and Head:</p> <p>Sternocleidomastoid Anterior scalene Middle scalene Posterior scalene Longus colli Longus capitis Rectus capitis anterior Rectus capitis lateralis</p> <p>Muscles of the Posterior Neck and Head:</p> <p>Upper Trapezius Levator Scapula Splenius capitis Splenius cervicis Rectus capitis posterior major Rectus capitis posterior minor Obliquus capitis inferior Obliquus capitis superior</p> |

| Muscles (MANA 203) | |
|--|---|
| <p>Muscles of the Back:</p> <p>Iliocostalis Longissimus Spinalis Semispinalis Multifidus Rotatores Interspinales Intertransversarii Quadratus lumborum Trapezius Rhomboid Major Rhomboid Minor Levator scapulae Serratus anterior Latissimus dorsi Teres major Supraspinatus Infraspinatus Teres minor Subscapularis</p> | <p>Muscles of the Abdomen:</p> <p>Pectoralis Major Pectoralis Minor Subclavius Rectus Abdominus External Abdominal Obliques Internal Abdominal Obliques Transverse Abdominus Psoas Major Psoas Minor</p> |

Arteries and Veins (MANA 203)

Arteries: Head and Neck

Ascending Aorta
 Brachiocephalic Trunk
 Left Common carotid Artery
 Left Subclavian Artery
 Common Carotid Artery
 External Carotid Artery
 Superficial Temporal Artery
 Maxillary Artery
 Anterior Cerebral Artery
 Middle Cerebral Artery
 Internal Carotid Artery
 Right Subclavian Artery
 Right Common Carotid Artery
 Vertebral Arteries
 Basilar Artery
 Posterior Cerebral Artery
 Circle of Willis
 Thyrocervical Trunk
 Costocervical Trunk

Arteries: Trunk, Vertebral Column and Abdomen

Aorta
 Right Brachiocephalic Artery
 Right Subclavian Artery
 Left Subclavian Artery
 Internal Thoracic Arteries
 Anterior Intercostal Arteries
 Posterior Intercostal Arteries
 Superior Phrenic Arteries:
 Pericardial Arteries
 Bronchial Arteries
 Esophageal Arteries
 Mediastinal Arteries
 Inferior Phrenic arteries
 Celiac Trunk
 Common Hepatic Artery
 Gastroduodenal Artery
 Hepatic Artery
 Splenic Artery
 Left Gastric Artery
 Right and Left Gastroepiploic Arteries
 Right Gastric Artery
 Superior Mesenteric Artery
 Suprarenal Arteries
 Renal Arteries
 Gonadal Arteries
 Inferior Mesenteric Artery
 Lumbar Arteries
 Median Sacral Artery
 Common Iliac Arteries

Veins: Head and Neck

Superior Vena Cava
 Inferior Vena Cava
 Brachiocephalic Veins
 Azygos Vein
 Hemiazygos Vein
 Hepatic Portal Vein
 Lumbar Veins
 Gonadal Veins
 Renal Veins
 Suprarenal Veins
 Hepatic Portal System
 Hepatic Veins
 Cystic Veins
 Inferior Phrenic Veins

Veins: Trunk, Vertebral Column and Abdomen

Sigmoid Venous Sinus
 Cavernous Venous Sinus
 Internal Jugular Vein
 External Jugular Vein
 Brachiocephalic Veins
 Subclavian Veins
 Vertebral Veins

Nerves (MANA 203)

Nerves: Head and Neck

Olfactory nerve
Optic nerve
Oculomotor nerve
Trochlear nerve
Trigeminal nerve
Abducens nerve
Facial nerve
Vestibulocochlear nerve
Glossopharyngeal nerve
Vagus nerve
Accessory nerve
Hypoglossal nerve
Cervical plexus
C1 nerve root
C2 nerve root
C3 nerve root
C4 nerve root
Lesser occipital nerve
Great auricular nerve
Transverse cervical nerve
Supraclavicular nerve
Superior root of ansa cervicalis
Inferior root of ansa cervicalis
Phrenic nerve

Nerves: Trunk, Vertebral Column and Abdomen

Thoracic Nerves T1-T12 / Intercostal Nerves

Muscles (MANA 303)

| Muscles of Shoulder: | Muscles of Elbow and Wrist: | Muscles of the Hand and Fingers: |
|--|---|---|
| Trapezius Rhomboid major Rhomboid minor Levator scapulae Serratus anterior Pectoralis major Pectoralis minor Subclavius Deltoid Coracobrachialis Latissimus dorsi Teres major Supraspinatus Infraspinatus Teres minor Subscapularis | Biceps brachii Brachialis Brachioradialis Triceps brachii Anconeus Pronator teres Pronator quadratus Supinator Flexor carpi radialis Palmaris longus Flexor carpi ulnaris Extensor carpi radialis longus Extensor carpi radialis brevis Extensor carpi ulnaris | Flexor digitorum superficialis Flexor digitorum profundus Flexor pollicis longus Extensor digitorum Extensor digiti minimi Abductor pollicis longus Extensor pollicis brevis Extensor pollicis longus Extensor indicis Abductor pollicis brevis Flexor pollicis brevis Opponens pollicis Abductor digiti minimi manus Flexor digiti minimi manus Opponens digiti minimi Adductor pollicis Lumbricals Palmar interossei Dorsal interossei Palmaris brevis |

Muscles (MANA 303)

| Muscles of the Pelvis and Hip: | Muscles of the Knee and Ankle: | Muscles of the Foot: |
|---|---|---|
| Psoas major Psoas minor Iliacus Tensor fasciae latae Sartorius Pectineus Adductor longus Gracilis Adductor brevis Adductor magnus Gluteus maximus Gluteus medius Gluteus minimus Piriformis Superior gemellus Obturator internus Inferior gemellus Obturator externus Quadratus femoris | Rectus femoris Vastus lateralis Vastus medialis Vastus intermedius Biceps femoris Semitendinosus Semimembranosus Popliteus Tibialis anterior Fibularis tertius Fibularis longus Fibularis brevis Gastrocnemius Soleus Plantaris Tibialis posterior | Extensor digitorum longus Extensor hallucis longus Tibialis Anterior Flexor digitorum longus Flexor hallucis longus Tibialis Posterior Extensor digitorum brevis Extensor hallucis brevis Abductor hallucis Abductor digiti minimi pedis Flexor digitorum brevis Quadratus plantae Lumbricals pedis Flexor hallucis brevis Flexor digiti minimi pedis Adductor hallucis Plantar interossei Dorsal interossei |

Arteries and Veins (MANA 303)

Arteries: Scapula and Upper Limb

Subclavian artery
 Vertebral artery
 Internal thoracic artery
 Thyrocervical trunk
 Axillary artery
 Superior thoracic artery
 Thoracoacromial artery
 Lateral thoracic artery
 Subscapular artery
 Anterior circumflex humeral artery
 Posterior circumflex humeral artery
 Brachial artery
 Middle collateral artery
 Radial collateral artery
 Superior ulnar collateral artery
 Inferior ulnar collateral artery
 Radial artery
 Carpal artery
 Superficial palmar arch
 Deep palmar arch
 Ulnar
 Anterior ulnar recurrent
 Posterior ulnar recurrent
 Anterior interosseous
 Posterior interosseous

Arteries: Pelvis and Lower Limb

Abdominal aorta
 Common Iliac arteries
 Internal Iliac arteries
 External Iliac arteries
 Superior and inferior gluteal arteries
 Obturator artery
 Pudendal artery
 Femoral arteries
 Deep artery of the thigh/deep femoral artery
 Medial circumflex artery
 Lateral circumflex artery
 Popliteal artery
 Anterior tibial artery
 Dorsalis pedis artery
 Arcuate artery
 Metatarsal arteries
 Posterior tibial artery
 Fibular artery
 Lateral and medial plantar arteries
 Plantar arch
 Digital arteries

Veins: Scapula and Upper Limb

Dorsal digital veins
 Dorsal metacarpal veins
 Cephalic vein
 Basilic vein
 Median cubital vein
 Axillary vein
 Radial vein
 Ulnar vein
 Subclavian vein

Veins: Pelvis and Lower Limb

Medial and lateral plantar veins
 Posterior tibial vein
 Fibular vein
 Dorsalis pedis vein
 Anterior tibial vein
 Popliteal vein
 Femoral vein
 External iliac vein
 Internal iliac vein
 Common iliac vein
 Dorsal venous arch
 Great saphenous vein
 Small saphenous vein

Nerves (MANA 303)

Nerves: Scapula and Upper Limb

Musculocutaneous nerve
Median nerve
Ulnar nerve
Radial nerve
Axillary nerve
Dorsal scapular nerve
Long Thoracic nerve
Subscapular nerve
Suprascapular nerve
Pectoral nerve

Nerves: Pelvis and Lower Limb

Femoral nerve
Obturator nerve
Lateral femoral cutaneous nerve
Iliohypogastric nerve
Ilioinguinal nerve
Genitofemoral nerve
Sciatic nerve
Tibial nerve
Common fibular nerve
Superior gluteal nerve
Inferior gluteal nerve
Posterior femoral cutaneous nerve
Pudendal nerve