The **A** to **Z** of **Skeletal Muscles**

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Introduction

This book is particularly useful when used with the A to Z of Peripheral Nerves and, the A to Z of the Bones, Joints, Ligaments & the Back, but all the A to Zs are cross-referenced and together are forming a set covering the all structural elements of the human body. The A to Z of the Head and Neck bones and muscles, contains the many small particular muscles of this region which were too numerous to list in this book; for example the small but important pharyngeal muscles involved in sleep apnea. The A to Z of Bone and Joint Failure is the first book to cover the breakdown of the body's structures in this manner and it is hoped that a book on muscular failures and limitations will follow in this ever increasing series. If there is a structure / subject you want to see in the A to Zs let us know. Feedback plays a vital role in the A to Zs.

Acknowledgement

Thank you Aspenpharmacare Australia for your support and assistance in this valuable project, particularly Mr. Greg Lan, and Rob Koster. Thank you to all those who have helped when I have been rushed to finish and have made time for this project, and have faith in it, in particular Ante Mihaljevic and Phill Ryman. Thank you everyone who has provided valuable feedback, and help in many ways; Richard, Peter, Robbie, Jody, Quentin, Ximena and there are others too thank you and the namesakes of these books my A to Zs.

Dedication

To all those who have a passion and work hard at it – every day. It all comes down to – you just have to get up in the morning and do it; and then you have to do it again tomorrow.

How to use this book

The structure of the A to Zs grows and develops with each new book while the principle of listing structures in an alphabetical is maintained. Basic anatomical concepts are placed in the beginning of this book; then regional grouping of muscles. The role of the Common Terms section is enlarged, illustrated and colour coded. The text under each muscle in the main listing consists of basic minimal information such as the : Origin (O), Insertion (I), Action (A), Blood Supply (BS), Nerve Supply (NS), Nerve Root origin (NR) and functional tests (T). Naming avoids eponymous terms wherever possible, but if used they are cross referenced with their anatomical name. Capitalization is used to demonstrate the muscles, bones and other important components. The A to Zs may be viewed on 2 sites – www.amandasatoz.com and http://www.aspenpharma.com.au/atlas/student.htm

Thank you

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Abbreviations

A = **actions /movements of a joint**
a = artery
aa = anastomosis (ses)
ACF = anterior cranial fossa
adj. = adjective
AKA = also known as
ALL = anterior longitudinal ligament
alt. = alternative
ANS = autonomic nervous system
ant. = anterior
A / P = anterior/posterior
art. = articulation (joint w/o the additional support structures)
AS = Alternative Spelling, generally referring to the diff. b/n UK & USA
assoc. = associated (with)
bc = because
BM = bone marrow
bm = basement membrane
BMD = bone mineral density
b/n = between
br(s) = branch(es)
BS = **blood supply** / blood stream
BV = blood vessel
Bx = biopsy
C = carpal / carpo / cervical
c = cytoplasm
c.f. = compared to
cm = cell membrane
CN = cranial nerve
CNS = central nervous system
Co = collagen
collat. = collateral
CP = cervical plexus
Cr = cranial
CSF = cerebrospinal fluid
CT = connective tissue
D = dermis / diaphysis
DD = differential diagnosis
diff. = difference(s)
DIP = distal interphalangeal joint
dist. = distal
Dx = diagnosis / diagnoses
E = epiphysis
EAM = external acoustic meatus
EC = extracellular (outside the cell)
e.g. = example
EP = epiphyseal growth plate
ER = extensor retinaculum
ES = Erector Spinae group of muscles
er = endoplasmic reticulum
Ex = examination
ext. = extensor (as in muscle to extend across a joint)
ext. = extension
F = fat
f = fluid
FB = fibroblasts
FC = fibrocytes
flex. = flexor
flex. = flexion
FR = flexor retinaculum
gld = gland
GIT = gastro-intestinal tract
Gk. = Greek
grp = group
Histo = Histology
HP = high powered magnification
Hx = history (of the disease)
I = **insertion**
IAS = internal anal sphincter
IC = intercarpal / intercarpo
IMC = intermetacarpal
inf = inferior
IP = interphalangeal
IR = immune response/ reaction

IT = intertarsal
Ix = investigation of
Iy = injury
jt(s) = joints = articulations
l = lymphatic
L = lesion / left / lumbar
lat = lateral
LB = long bone
LBP = low back pain generally assoc with prolapsed disc
LL = lower limb
lig = ligament
longit. = longitudinal
LOF = loss of function
LP = low powered magnification
Lt. = Latin
M = meta
m = muscle
MC = metacarpal / metacarpo
MCF = middle cranial fossa
MCP = metacarpophalangeal
med = medial
mito = mitochondria
MM = mucous membrane
MP = medium magnification
M/P = medial / lateral
MT = metatarsal
mΦ = macrophage
N (s) = nerve(s)
NAD = normal (size, shape)
NAD = no abnormality detected
NK = natural killer
No = nucleolus
NOF = neck of Femur
NR = **nerve root origin**
NS = **nervous supply** / nerve system
NT = nervous tissue
Nu = nucleus (nuclei)
nv = neurovascular bundle
O = **origin**
PAD = peripheral arterial disease
PaNS. = parasympathetic nervous system
ParaNs = parasympathetic nerves ± fibres
partic = particular(ly)
PBM = peak bone mass
PCF = posterior cranial fossa
pH = a measure acidity
ph = phalangeal / phalanges / phalango
PIP = proximal interphalangeal joint
pl. = plural
PLL = posterior longitudinal ligament
PN = peripheral nerve
post. = posterior
proc. = process
prox. = proximal
PS = pubic symphysis
PVD = peripheral vascular disease
Px = progress
R = right / resistance
RA = rheumatoid arthritis
ROM = range of movement
RT = respiratory tract
S = strata/stratum /sacral
SC = spinal cord
SCC = squamous cell carcinoma
sing. = singular
SE = side effects
SN = spinal nerve
SP = spinous process / sacral plexus
SS = signs and symptoms
Su = subcutaneous T / fat
subcut. = subcutaneous (just under the skin) as a site
sup = superior
supf = superficial
SyNS = sympathetic nervous system
T = **test** / thorax / tissue
TJC = tight junctional complex
TP = transverse process

Tx = treatment / therapy
UL = upper limb, arm
v = very
V = vertebra / vein
VB = vertebral body
VC = vertebral column
vv = vice versa
w = with
WBCs = white blood cells
w/n = within
w/o = without
wrt = with respect to
& = and
∩ = intersection with
= fracture

Common terms in the Study and Examination of Skeletal Muscles, Nerves and Bones

A

Ablation *(AB-lay-shon)* the removal of part of the body, generally a bony part, most commonly the teeth

Acral *(AK-ral)* relating to the extremity of an organ or limb –i.e. fingers

Acro *(AK-roh)-* ***(adj acral) Gk akcron* = extreme end, extremity, peak, tip, denoting something at the extremities ankles / fingers / wrists**

Adnexa *(AD-nex-uh)* appendage, limb extras ***pl adnexae*** *(AD- nex-ee)*

Ala *(AY-lar)* a wing, hence a wing-like process as in the Ethmoid bone ***pl alae.***

Alveolus *(AL-vee-oh-lus)* air filled (bone - tooth socket) ***adj alveolar*** (as in air filled bone in the maxilla)

Amorphous *(AY-mor-fuss)* shapeless, structureless

Anatomical position the reference position, in which the subject is standing erect with the feet facing forward, arms are at the sides, & the palms of the hands are facing forward (the thumbs are to the outside).

Anatomy *(ah-NAH-to-mee)* the study of the structure of the body

Ankle bend = angle usually referring to the bend just above the foot, hence the ankle is the joint b/n the foot & LL

ankylos- *(an-KEE-los)* **stiff / stiffening – often referring to something becoming calcified**

Ankylosis **a fixed bending of the jt – unable to straighten – always pathological**

Annulus fibrosis the peripheral fibrous ring around the intervertebral disc

Aperture *(a-PET-tyuu-a)* an opening or space b/n bones or w/in a bone.

Aponeurosis expanded end of a tendon – sheet of fibrous T allowing for muscle insertion

Appendicular refers to the appendices of the axial i.e. in the skeleton, the limbs upper & lower which hang from the axial skeleton, this also includes the pectoral & pelvic girdles (not the sacrum)

Areola small, open spaces as in the areolar part of the Maxilla may lead or develop into sinuses.

Arthrodesis complete loss of movement in a jt due to surgical ablation

Articulation joint, description of the bone surfaces joining w/o the supporting structures = point of contact b/n 2

opposing bones hence the articulation of Humerus & Scapula is the articulation of the shoulder joint. ***adj articular***

Artifact *(AH-te-fact)* AS **Artefact** – any distortion seen in the histological or radiological processing of material

Atopy *(AY-toe-pee)* – out of place ***adj atopic***

Auditory pertaining to hearing, hence, pertaining to the ear.

Axial *(AK-see-el)* refers to the head & trunk (vertebrae, ribs & sternum) of the body as opposed to appendicular.

B

Ball and Socket generally referring to a joint which resembles a ball sitting tightly in a socket - very stable, limited range of movement e.g. hip joint

Basement membrane (bm) a thin layer of extracellular fibrillar protein matrix & CT stroma that underlies all epithelial cells

baso- base (as in acid / base; as in the bottom – the basal layer) ***adj basal***

Basocranium bones of the base of the skull

-blast immature cell / undifferentiated cell

Bone *(BOH-n)* a CT that contains a hardened matrix of mineral salts & collagen fibers. Bone cells include: osteoblasts, osteocytes, & osteoclasts.

Boss a smooth round broad eminence - mainly in the frontal bone ♀ > ♂

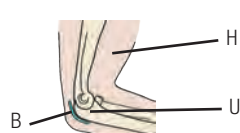
Brachial *(BRAY kee-al)* arm, mainly to do with the upper arm

Bregma refers to a junction of more than 2 bones in a jt as in the Bregma of the skull, junction b/n the coronal & sagittal sutures which in the infant is not closed & can be felt pulsating

Brevis short

Buccal pertaining to the cheek

Bursa *(BER-suh)* a flattened sac containing a film of fluid (B), found around jts to allow for movement. **pl bursae** e.g. the Elbow jt bursa. b/n Humerus (H) & Ulna (U)



C

Calcaneus *(KAL-kan-ee-us)* heel, hence the bone of the heel ***adj calcaneal.***

Calcaneal tendon ***see Achilles tendon***

Calcar a spur ***adj calcarine.***

Calcinosis *(KAL-sin-oh-sis)* deposits of Calcium in body Ts &/or organs

Calotte *(KALoh-tee)* the Calotte consists of the Calvaria from which the base has been removed.

Calvaria the Calvaria are the bones of the Cranium w/o the facial bones, attached.

Camptodactyly congenital flexion disorder of the PIP, generally affects the little finger

Canal tunnel / extended foramen as in the carotid canal at the base of the skull ***adj canular***

Canaliculus small canal

Cancellous bone **= Trabecular bone** a spongy, porous bone, lightweight with bone spicules or trabeculae parallel to lines of force found at the ends of LBs (epiphyses) with surrounding BM, found sandwiched b/n lamellae of compact bone, in the VBs & in areas of ⬆ bone thickness

Cancer *(KAN –ser)* group of diseases where the cells w/o the normal controls

Capitulum diminutive of Caput, little head

Capsule *(KAP-syoo-l)* an enclosing membrane

Caput / Kaput the head or of a head, ***adj.- capitate = having a head (c.f. decapitate)***

Carpal Tunnel the tunnel formed by the wrist bones (carpal bones) to allow the passage of the flexor tendons & Ns to the hand & fingers , bound superiorly by the palmar fascia

Carpo wrist

Carpometacarpal generally referring to the jt b/n hand & the wrist bones

Cartilage *(KAR-tih-lehj)* a type of CT characterized by the presence of an extensive matrix containing a dense distribution of proteins & a thickened GS.

Cavity *(KAV-it-ee)* an open area or sinus w/in a bone or formed by 2 or more bones ***adj cavernous***, may be used interchangeably with fossa. Cavity tends to be more enclosed fossa a shallower bowl-like space (e.g. Orbital fossa-Orbital cavity).

Cavum a cave ***adj cavis***

Cell *(SELL)* the basic living unit of multicellular organisms.

Cephalic pertaining to the head

Cervico- pertaining to the neck

chondro- *(KON-droh)* referring to cartilage

Chondrium *(KON-dree- um)* the cartilage ***adj chondria, chondral***

Chondrocyte *(KON-droh-site)* a mature cartilage cell.

Chondroitin sulphate *(kon-DROI-tin SUL-fate)* a semisolid material forming part of the EC matrix in certain CT.

chromo- *(KROHM-oh)* referring to colour ***adj chromatic***

Cillia pertaining to eyelash and hair

Clavicle little key = S-shaped bone = collar bone

Cochlea *(KOK-lee-uh)* a snail hence snail-like shape relating to the Organ of Corti

Collagen *(KOL-a-jen)* the major fibre of the body; in CT, tendons ligaments & extracellular substances of many Ts

Colle's referring to a collar or neck

Compact bone **= Cortical bone = Dense bone** bone found in the shafts & on external bone surfaces. The structure is variable & constantly being remodeled throughout life. It may consist of osteons &/or lamellae.

Concha *(KON-kuh)* a shell shaped bone as in the ear or nose ***(pl. conchae adj. chonchoid)*** old term for this turbinate.

Condyle *(KON-dial)* a rounded enlargement or process – used in ref to a number of bones – commonly the TMJ jt

Congenital *(KON-jen-it-al)* present from birth

Connective tissue *(kon-EK-tiv Tish-ew)* (CT) one of the 4 basic types of tissue in the body. It is characterized by an abundance of EC material with relatively few cells & functions in the support & binding of body structures.

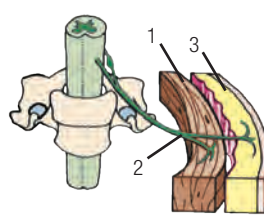
Cornu a horn (as in the Hyoid)

Corona a crown. ***adj coronary, coronoid or coronal;*** hence a coronal plane is parallel to the main arch of a crown which passes from ear to ear ***(c.f. coronal suture).***

Cortex the rind or the bark of the tree
Costo/Costa - pertaining to the ribs
Coxa hip
Cranium the cranium of the skull comprises all of the bones of the skull except for the mandible.
Crest prominent sharp thin ridge of bone formed by the attachment of muscles particularly powerful ones e.g. Temporalis/Sagittal crest
Cribiform / Ethmoid a sieve or bone with small sieve-like holes.
Crown = Vertex the top of the organ or body
Crura ***adj cruris*** leg
Cuneate /Cuneus a wedge / wedge-shaped (bone)
cyst- (SIST) **bladder / fluid filled sac**
-cytes (SYTS) **mature cell types**
cyto- **cellular**

D

dactyly **digits**
dendro- tree-like formation
Deltoid D-shaped
Dens a tooth hence dentine & dental relating to teeth, denticulate having tooth-like projections ***adj dentate see also odontoid***
Depression a concavity on a surface
Dermatome section of skin (3) supplied by a single NR (2) as opposed to myotome (1) – which is the area of muscle supplied by a single NR – skin & muscle supplied by the same NR are generally closely associated



Diaphragm a partition or separating wall
Diaphysis *(DY-af-i-sis)* the shaft or body of a LB. In the young this is the region b/n the growth plates & is composed of compact bone. ***pl = diaphyses adj = diaphyseal***
Diarthrodal jt **= synovial jt = moveable jt**

Diastasis separation – may mean separation of a muscle from its original position as in pregnancy; or a bone from its original position w/o # – as in tendon rupture

Differentiation the changing of cells to become increasingly specialized

Digit / Digitorum relating to fingers and toes

Diploë the cancellous bone b/n the inner & outer tables of the skull, ***adj diploic.***

Dislocation a displacement of anything e.g. a joint

Distal further away from the axial skeleton *(opposite of Proximal)*

dorsi- back

dys- *(DIS)* ***Gk bad sign*** **abnormal, bad, difficult, disorganized, painful (opposite to eu)**

Dysplasia *(DIS-play-zee-yah)* abnormal growth of T or cells

E

Edentulous w/o teeth

Effusion excess synovial fluid – in the jt

Elbow any angular bend, e.g.in the UL, referring to the jt b/n the arm & forearm

Eminence a smooth projection or elevation on a bone as in iliopubic eminence.

Endocranium refers to the interior of the "braincase" ***adj. endocranial*** divided into the 3 major fossae anterior (for the Frontal lobes) middle (containing Temporal lobes) and posterior (for the containment of the Cerebellum).

Endogenous growing from w/in tissues or cells

Endostium a mesodermal CT which lines the inner surface of all bones & is the conduit for the NS & BS of the bone. Lifting of the endosteum causes cancellous bone to be laid down to fill the gap b/n the bone & the cellular layer & this device may be used to encourage bone growth/repair.

Enostosis = bony island a bony growth of compact bone w/in a bone – generally on the internal surface in the trabecular bone harmless incidental finding – DD prostatic metastasis

epi- **on top of**

Epiphysis the end of a LB beyond the growth plate or EP. Generally develops as a 20 ossification centre. There are 2 epiphyses to each LB. Of a LB the shafts are generally compact bone & the ends = epiphyses are trabecular bone with a compact bone covering ***pl.= epiphyses adj.= epiphyseal***

Excrescence outgrowth from a surface – e.g. normal fingernail / abnormal wart or exostosis

Exostosis a bony outgrowth from a bony surface, often due to irritation (as in Swimmer's ear) & may involve ossification of surrounding Ts such as muscles or ligaments.

F

Facet a face, a small bony surface (occlusal facet on the chewing surfaces of the teeth) seen in planar joints.

Falciform *(FAL-see form)* relating to shapes that are in a sickle shape so falciform ligaments curve around & end in a sharp point

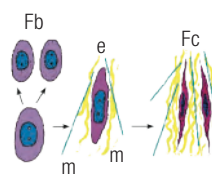
Fascia *(FASH-ee-ah)* ***Lt = a band*** a sheet or band of fibrous T deep in the skin covering & attaching to deeper tissues

Fascicle *(FAS-ih-kul)* small bundle

Femoral angle the angle b/n the femoral head & the shaft
normal 120º - 135º, Valgus >135º, Varus < 120º

Fibroblast an immature progenitor cell found in all CT, capable of mitosis, migration, movement. Among other pathways they develop into fibrocytes.

Fibrocyte **mature fibre producing cell = mature fibroblast** – spindle shaped cell producing either collagen (col) or elastin (e) fibres via secretion of monomer units (m) which assemble outside the cell into long fibres, which are then maintained by the fibrocytes. Note with age the number of fibrocytes & hence the fibres ⬇ hence compromising the integrity & strength of their CT.



Fibrocartilagenous stroma background T of cartilage with high collagen fibre component

Fibromatosis fibrosis w/n a fascial sheath

Fibrosis *(FY- broh-sis)* ⬆ fibrous T, generally collagen fibres as in scars; can occur in all organs

Fissure a narrow slit or gap from cleft.

Foramen a natural hole in a bone usually for the transmission of BVs &/or Ns. ***pl. foramina.***

Fornix an arch

Fossa a pit, depression, or concavity, on a bone, or formed from several bones as in temporomandibular fossa. Shallower & more like a "bowl" than a cavity

Fovea a small pit (usually smaller than a fossa) - as in the fovea of the occlusal surface of the molar tooth.

Fracture (#) a break, generally referring to bone

Fusiform spindle-shaped – many CT cells are of this shape particularly fibrocytes.

G

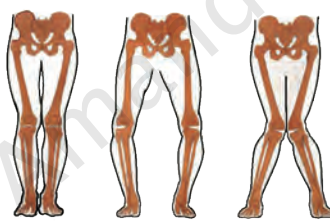
Geneio referring to the chin

Genu *(JEN-you)* knee ***adj genio*** referring to the knee

Genu Recurvatum – hyperextension of the knee jt

Genu Valgus – knock-kneed **("G" knocking together)**

Genu Varus – bow-legged **(AR – AIR in b/n)**



Genu Norma Genu Varus Genu Valgus

Glossus referring to the tongue

Gluteal referring to the buttocks

Groove a long pit or furrow as on the Humerus – may be due to muscle tracking

H

haemo *(HEEM-oh)* **AS hemo- referring to blood**

Hallux the big toe = the first toe

Hamus a hook hence the term used for bones which "hook around other bones or where other structures are able to attach by hooking - hamulus = a small hook.

Harris lines — **AKA growth arrest lines** lines of ⬆ bone density due to pathological assault or sudden growth spurts. They indicate the position of the EP at the time of the event but they may change the shape of the bone & affect its length. Only seen in Xrays

Haversian canals — **= osteons *see Osteons***

Hinge joint — jt with movement in one plane e.g. elbow or knee

Hormone — ***Gk hormaein = to spur on*** a substance secreted in the body having a regulatory affect on organs & Ts

Hyoid — U-shaped

Hyperostosis — abnormal bone growth, thickening, generally overgrowth or ectopic growth

hypo- — **underneath / below**

I

Ideopathic — of unknown origin

Incisura — a notch

Inclusion — any foreign or heterogeneous substance w/in a cell not introduced as a result of trauma.

Inferior — under

Inter — between

Intra — within

Intracellular — inside the cell

Introitus — *(In-TROY-tus)* an orifice or point of entry to a cavity or space.

J

Joint — **= Articulation + supporting structures**

L

Lacerum — something lacerated, mangled or torn e.g. foramen lacerum small sharp hole at the base of the skull - often ripping T in trauma.

Lacrimal — related to tears & tear drops. ***(noun lacrima)***

Lambda — ***Gk letter a capital 'L'*** - written as an inverted V. ***adj lambdoid*** – used to name the point of connection b/n 3 skull bones Occipital and L & R Temporal bones.

Lamina — a plate as in the lamina of the vertebra a plate of bone connecting the vertical & transverse spines ***(adj lamellar, pl. laminae) e.g. lamellar bone*** layers of compact bone interdigitated with sheets

of collagen fibres these may form concentric rings around BVs as in osteons (Haversian systems) or as layers around the outside & inside of the diaphysis of LBs

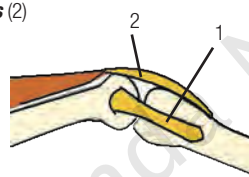
Lamina dura layer of immature bone lining the tooth socket

Lesion any single area of altered tissue or part of an organ

leuco-/ leuko- **AKA luco /luko** *(LOO- koh)* white, pale, clear

Leucocyte ***see white blood cell (WBC)***

Ligament (s) a band of CT which connects bones (articular ligaments) (1) or viscera - organs (visceral ligaments), generally collagen A ligament is a tie or a connection. Originally it was used as sing. ***ligamentum pl ligamenta*** from ligate or to tie up generally composed of collagen fibres. ***see also Tendons*** (2)



Linea a line as in the Nuchal lines of the Occipitum / Occipital bone

Lingus *(ling-GUS)* tongue ***adj Lingual*** *(ling-GEW-al)* pertaining to the tongue

Lip projection over the usual marging

Lipping bone projecting over the usual margin, excessive production generally pathological as in OA, may interfere with jt movement

Locus *(LOH-kus)* a place ***(c.f. location, locate, dislocate)*** – specific area in organ or T of either cell division or specialization

Lordosis *(lor-DOH-sis)* concavity in the VC – cervical & lumbar region have this normal curve which may become exaggerated – predisposes to LBP ***opposite to kyphosis***

-lucent *(LOO-sent)* transparent, clear

-lymph *(LIM-pf)* clear liquid

Lumbar back – generally the lower back as in **Lumbago**

Lymphatic a vessel which carries fluid – lymph - to the heart

Lysosomes toxic cellular organelles containing enzymes which digest material – if lysed they will destroy their host cell

M

macro- **big, large**

Magnum large ***pl magna***

Malleus hammer (as in the ear ossicle)

Mandible from the verb to chew, hence, the movable lower jaw; ***adj mandibular.***

Mastoid breast or teat shape - mastoid process of the Temporal bone.

Maxilla the jaw-bone; now used only for the upper jaw; ***adj maxillary.***

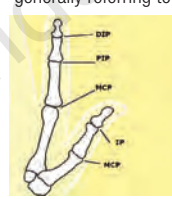
Meatus a short passage; ***adj meatal*** as in EAM connecting the outer ear with the middle ear.

Meniscus ***Gk. crescent*** – relating to the cartilaginous intra-articular crescents in the knee jt

Mentum relating to the chin (mentum = chin not mens = mind) ***adj mental.***

Meta an extension of…: cf. metacarpal = extension of the wrist

Metacarpophalangeal (MCP AKA MP) generally referring to the jt b/n hand & finger



Metaphysis **= Epiphysis** the slightly expanded end of the shaft of a bone.

Metaplasia the changing of one form of T type to another, extending from one type to another type as it grows

Micronutrient similar to trace element but it includes any substance which is essential to the body's normal functioning but is only needed in minute amounts. Deficiencies are rare in most cases because the dietary needs are so low; they often involve bone metabolism. Common micronutrients are: Aluminum, Boron, Chromium, Copper, Fluoride, Manganese, Molybdenum, Silicon, Zinc

morph- *(MORF-)* **shape / form**

Mucus *(MEW-kus)* slippery gelatinous substance produced by mucoid glands AKA phlegm ***adj mucous also mucoid*** **– mucus-like & myxoid** *(MIKS-oyd)* generally referring to substances found in Tms which

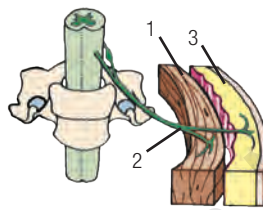
have a mucus-like appearance slimy & jelly – in these cases it is pathological

Multiforme ***see also Polymorphic***

myco- *(MY-coh)* **relating to fungi**

myelo- *(MY-loh)* **to do with the BM or the SC**

Myotome section of muscle (1) supplied by a single NR (2) as opposed to dermatome (3) – which is the area of skin supplied by a single NR – skin & muscle supplied by the same NR are generally closely associated



N

Neurocranium the neurocranium refers only to the braincase of the skull.

Neuroma benign proliferation of neural T but is often used to denote a fibrosis / fibrous nodule particularly in the feet as in plantar neuroma

noci- *(NOH-see)* **pain**

Notch an indentation in the margin of a structure.

Nucha *(NEW-kuh)* the nape or back of the neck ***adj nuchal***

Nucleus *(NEW-klee-us)* nut – brain of the cell containing DNA Nucleolus *(NEW-klee OH-lus)*

brain w/n the brain - nub of DNA material inside the nucleus

O

Occiput the prominent convexity of the back of the head Occipitum = Occipital bone ***adj. occipital***

occulta hidden

Occulus an eye

Odontoid relating to teeth, tooth like ***see Dens***

Oedema **AS Edema** *(uh-DEEM-uh)* swollen ***adj oedematous***

-oid **like / similar to**

-ology **study of**

-oma **lump / tumour**

Omo *(OH-moh)* shoulder

Ontogeny the development of an individual growth pattern

Orbit a circle; the name given to the bony socket in which the eyeball rotates; ***adj orbital.***

Organelles small intracellular structures e.g. mitochondria

Orifice an opening.

ortho- **straight**

Orthosis **AKA orthotic device** device to correct the movement of a bone or bones – from the simple foot orthoses to complex neck braces - the study of which device to use or make is the study of orthotics ***pl orthoses***

Orthosis general bone disease

Os a bone or pertaining to bones ***adj osseus***

-osis **disease of – non-inflammatory – implying a degeneration**

Ossicle a small bone as in the ear ossicles: Stapes (stirrup), Incus (anvil) & Malleus (hammer).

Ossification the process of turning something into bone, i.e. from one T to another as in cartilaginous ossification from cartilage into bone Two other forms are 1º ossification (in the shaft of the LB where the bone forms from CT) & 2º ossification where the bone has formed & 2º centers develop as at the ends of the LBs).

Ostium *(o-STEE-um)* a door, an opening, an orifice.

Otic pertaining to the ear

Ovale oval shaped

P

Palate a roof ***adj palatal or palatine.***

para- ***Gk* to one side**

Paratendinitis If changes w/n the tendon sheath

Parietal pertaining to the outer wall of a cavity; from paries = a wall.

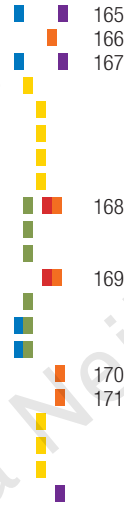
Parotid pertaining to a region beside or near the ear

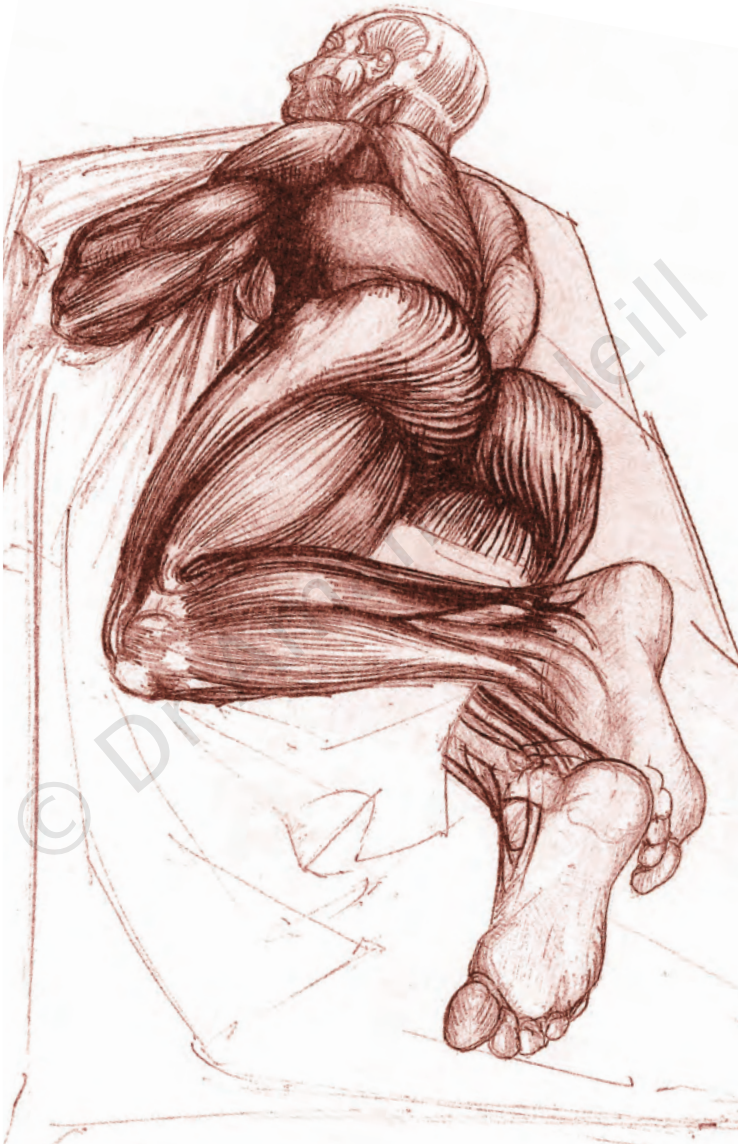
Pars a part of

Patella kneecap

Index of Muscles

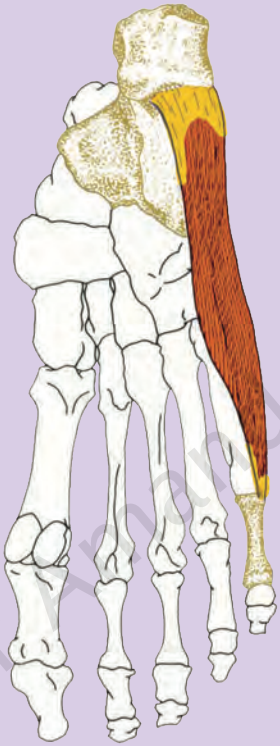
- Muscles of the hip, thigh leg and foot
- Muscles of the chest, shoulder, forearm and hand
- Muscles of the face, head and neck
- Muscles of the trunk
- Muscles of the back and spine
- Muscles of the pelvis and perineum





Abductor Digiti Minimi (foot)

most superficial layer of the sole of the foot



O - medial & lateral process of Calcaneal tuberosity
- Plantar Aponeurosis

I - lateral base Phalanx 1 Digit 5

A - abduction

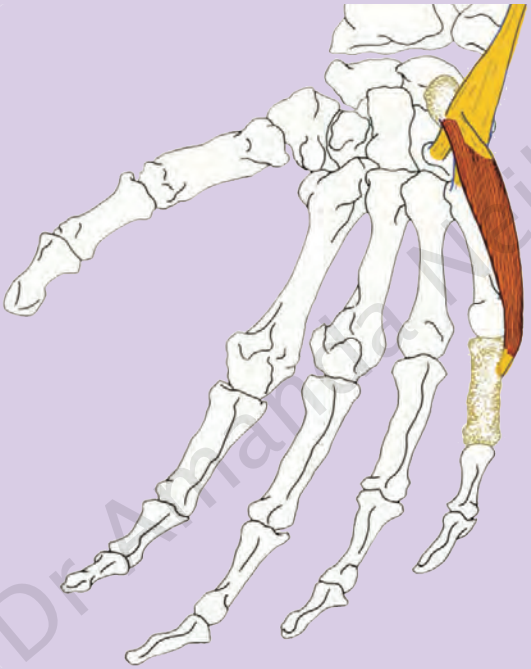
NS - lateral plantar N (L4-5)

BS - lateral plantar

T - abduction against R

Abductor Digiti Minimi (hand)

Hypothenar eminence



O - Pisiform
- tendon of Flexor Carpi Ulnaris

I - ulnar side Phalanx 1 Digit 5

A - abduction

NS - ulnar N (C8-T1)

BS - ulnar

T - abduction against R

Abductor Hallicus

most superficial layer of the sole of the foot

O - medial process of Calcaneal tuberosity
- Plantar Aponeurosis / Flexor Retinaculum

I - medial base Phalanx 1 Digit 1

A - abduction

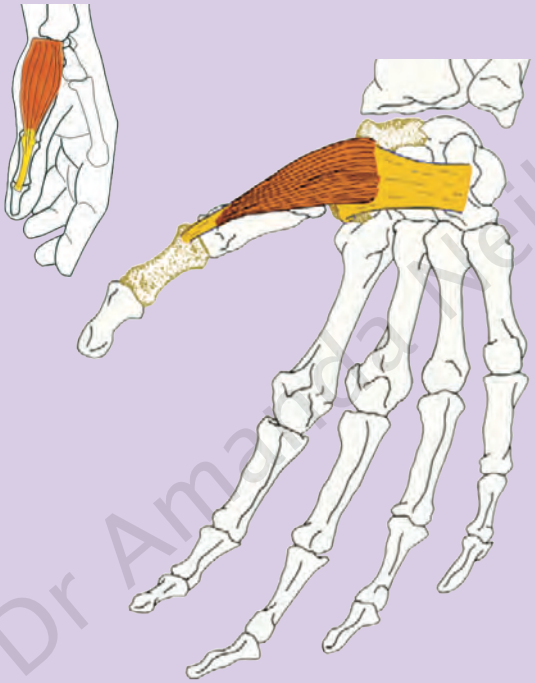
NS - medial plantar N (L4-5)

BS - medial plantar

T - abduction against R

Abductor Pollicus Brevis

part of the thenar eminence



O - ridge of Trapezium
- Flexor Retinaculum
- Scaphoid

I - lateral Phalanx 1 Digit 1

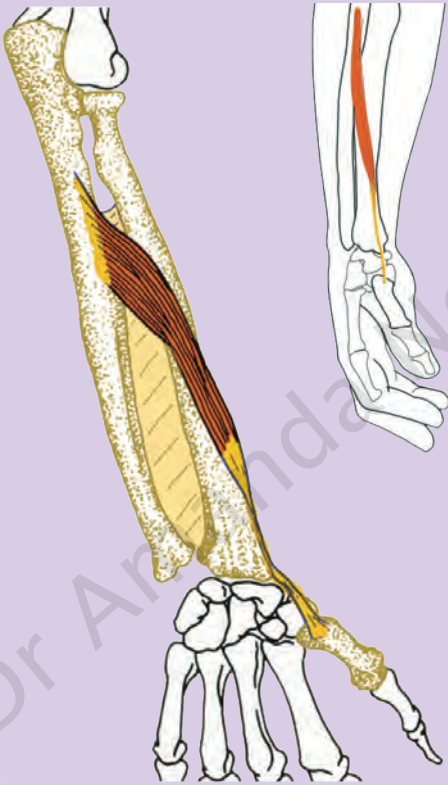
A - abduction / anterior movement of thumb

NS - median N (C7-T1)

BS - radial

T - abduction against R - at MCP

Abductor Pollicus Longus



O - posterior Radius
- posterior Ulna
- interosseus membrane

I - lateral base of MC 1

A - abduction of hand and thumb

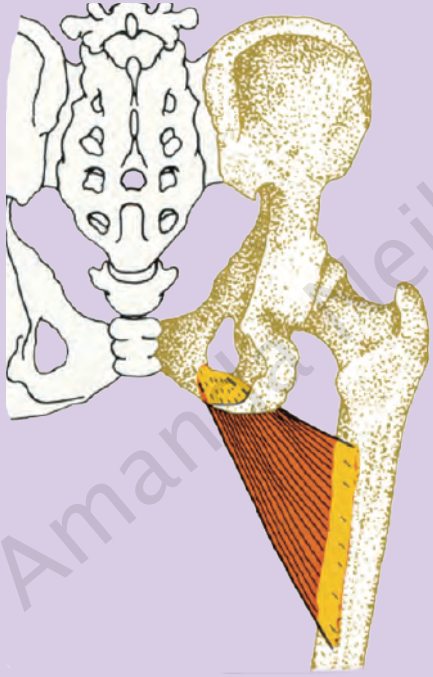
NS - radial N (C6-7)

BS - radial / ulnar

T - abduction against R - at MCP

Adductor Brevis

part of the medial compartment of the thigh



O - inferior pubic ramis of hip
I - upper medial lip of linea aspera (Femur)
A - adduction / hip flexion
NS - obturator N (L2-4)
BS - obturator
T - adduct legs against R in the supine patient

Adductor Hallicus

part of the third layer of the sole of the foot

O - oblique head - base MTs 2-4
- transverse head - sheath/tendon of Peroneus Longus
- plantar MCPs of Digits 3-5

I - lateral base of Phalanx 1 Digit 1

A - adduction

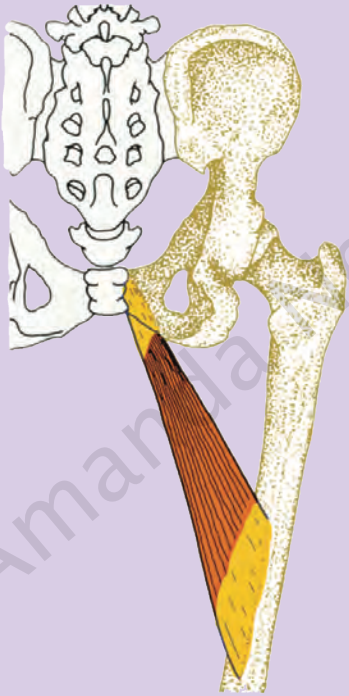
NS - lateral plantar N (deep branch) (L4-5)

BS - 1st plantar MT

T - separate big toe against R

Adductor Longus

part of the medial compartment of the thigh



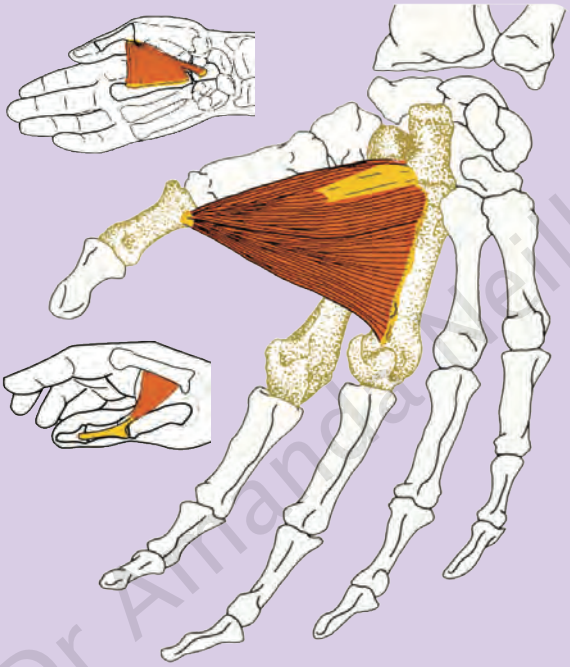
O - pubic symphysis of hip
I - middle medial lip of linea aspera (Femur)
A - adduction / hip flexion
NS - obturator N (L2-4)
BS - obturator
T - adduct legs against R in the supine patient

Adductor Magnus

part of the medial compartment of the thigh

O - pubic symphysis, ischeal ramus of hip
I - linea aspera, adductor tubercle (Femur)
A - adduction / hip flexion & extension
NS - obturator N + sciatic N (L2-4)
BS - obturator, medial circumflex, femoral
T - adduct legs against R in the supine patient

Adductor Pollicus



O - transverse head of MC 3
- Capitate (oblique head)
- Trapezium
- Trapezoid

I - lateral base of Phalanx 1 Digit 1

A - adduction of thumb

NS - ulnar N (deep branch) (C8-T1)

BS - deep palmar arch

T - close hand against R to the thumb

Anconeus

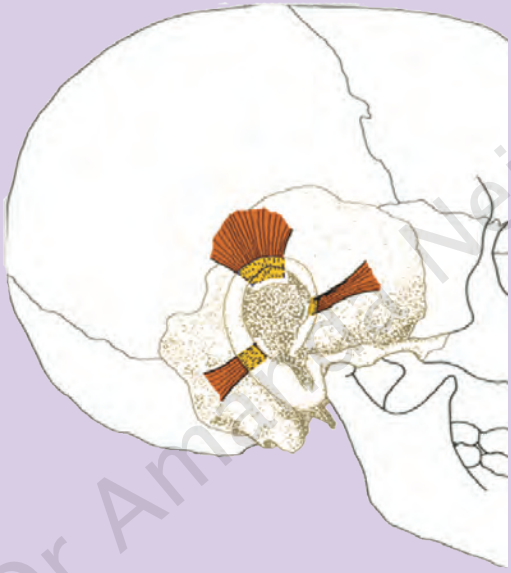
O - posterior lateral condyle - Capitulum (Humerus)
I - posterior Olecranon process (Ulna)
A - elbow extension
NS - radial N (C7-8)
BS - brachial (deep branch)
T - extend elbow against R

Aryepiglotticus - *see Muscles of the Larynx*

Arytenoids - Oblique, Transverse - *see Muscles of the Larynx*

Auricularis

anterior, superior, posterior
= Extrinsic muscles of the Ear (present in 30%)



O - ant. Epicranial Aponeurosis
- post. Mastoid process of Temporalis
- sup. Epicranial Aponeurosis

I - ant. root of Auricle
- post. root of Auricle
- sup. root of Auricle

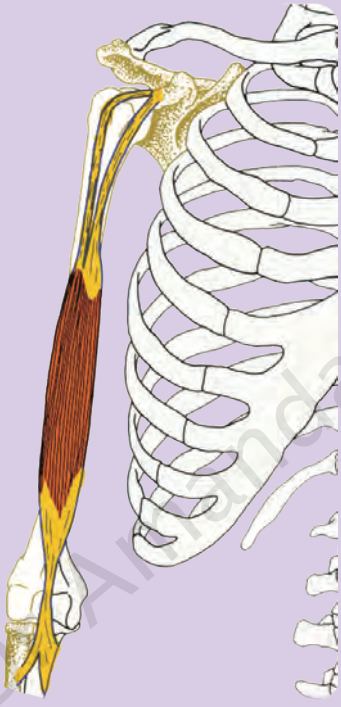
A - moves ear Pinna

NS - facial N (CN VII)

BS - facial / temporal

T - present if there is movement of the ear

Biceps Brachii



O - long head superior lip of Glenoid fossa (Scapula)
- short head Coracoid process (Scapula)

I - tuberosity (Radius)

A - flexion (shoulder & elbow)
- supination (hand & forearm)

NS - musculocutaneous N (C5-6)

BS - brachial (deep branch)

T - flex elbow against R - elbow placed on table at 90º

Biceps Femoris

O - ischeal tuberosity (hip)
- linea aspera (Femur)

I - head of Fibula

A - extension (hip)
- flexion (knee)
- rotation (flexed knee)

NS - sciatic N (L5-S2)

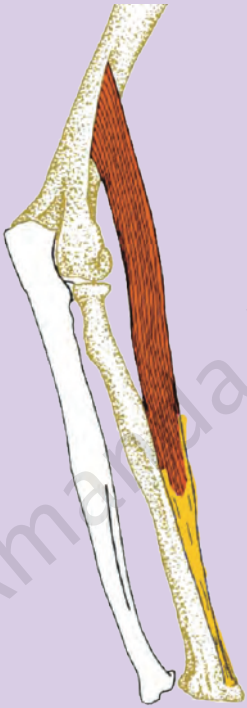
BS - deep femoral
- popliteal

T - extend hip against R
- flex knee against R - in the prone patient

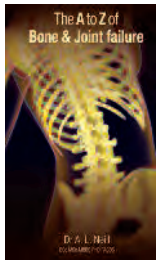
Brachialis

O - lower ½ of the Humerus
I - coronoid process (Ulna)
A - flexion (elbow)
NS - musculocutaneous N (C5-6)
BS - brachial (deep branch)
- radial recurrent
T - flex elbow against R - elbow placed on table at 90º

Brachioradialis



O - lateral supracondylar ridge (Humerus)
I - styloid process (Radius)
A - flexion (elbow)
- pronation (forearm)
NS - radial N (C5-6)
BS - radial recurrent
T - flex elbow against R - elbow placed on table at 90º



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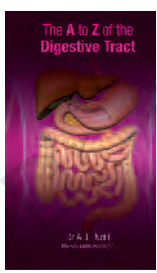

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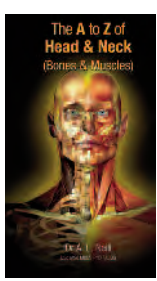

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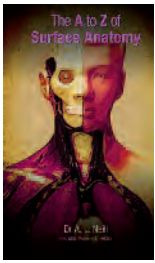

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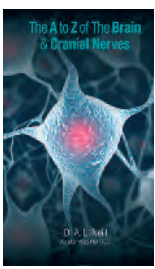

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