

Deep Muscles of the Back

"I Love Spaghetti – Some More Ragu": Iliocostalis, Longissimis, Spinalis – Semispinalis, Multifidus, Rotatores

Brachial Plexus

"Really Thirsty? Drink Cold Beer" or "Randy Travis Drinks Cold Beers"

Roots, Trunks, Divisions, Cords, Branches

"MARMU" (terminal nerves): Musculocutaneous, Axillary, Radial, Median, Ulnar

Muscles Inserting into Humerus

"A lady between two majors"

Pectoralis major attaches to lateral lip of bicipital groove, the teres major attaches to medial lip of bicipital groove, and the latissimus dorsi attaches to the floor of bicipital groove. The "lati" is between two "majors"

Carpal Bones (4 proximal, lateral to medial; 4 distal, lateral to medial)

"Some Lovers/Lions Try Positions That They Can't Handle":

Scaphoid, Lunate, Triquetrum, Pisiform, Trapezoid, Trapezium, Capitate, Hamate.

"TrapeziUM at the thUMB"

"TrapeziOID is inSIDE"

"Flexor carpi superficialis splits in two, to permit profundus to pass through"

Radial Nerve Innervations

"BEST": Brachioradialis, Extensors, Supinator, Triceps.

Median Nerve Innervations

"2LOAF": Lateral 2 Lumbricals, Opponens pollicis, Abductor pollicis brevis, Flexor pollicis brevis.

Rotator Cuff Muscles (3 greater tubercle; 1 lesser tubercle)

"SITS": Superspinatus, Infraspinatus, Teres minor, Subscapularis

Transverse Scapular Ligament

Army over (bridge), Navy under (bridge)

Artery goes over and Nerve goes under the ligament

Cubital Fossa (lateral to medial)

"TAN": Tendon (biceps brachii), Artery (brachial), Nerve (medial)

Hand

"PAD": Palmar (hand) muscles ADduct

"DAB": Dorsal (hand) muscles ABduct

"All For One And One For All" (medial to lateral):

Abductor digiti minimi, Flexor digiti minimi, Opponens digiti minimi, Adductor pollicis, Opponens pollicis, Flexor pollicis brevis, Abductor pollicis brevis

Axillary Artery Branches

“Save The Lions And Protect Species”: Supreme/Superior Thoracic Artery, Thoracoacromial Artery, Lateral Thoracic, Anterior Circumflex Humeral, Posterior Circumflex Humeral, Subscapular (thoracodorsal and circumflex scapular)

Thoracoacromial Artery Branches

"CALifornia Police Department": Clavicular, Acromial, Pectoral, Deltoid

Pectoral Nerves

"Lateral is less, medial is more"

Lateral pectoral nerve goes through pectoralis major, while medial pectoral nerve goes through both pectoralis major and minor.

Deep Posterior Leg Muscles

“Down The Hatch”: flexor Digitorum longus, Tibialis posterior, flexor Hallucis longus

Medial Malleolus (anterior to posterior)

“Tom, Dick, And Very Nervous Harry”: Tibialis posterior, flexor Digitorum longus tendon, posterior tibial Artery, posterior tibial Vein, tibial Nerve, flexor Hallucis longus

SGT FOS (connections to pes anserinus)

Sartorius (Femoral nerve), Gracilis (Obturator nerve), SemiTendinosus (Sciatic nerve)

Femoral Triangle Boundaries

“So I May Always Love Sally”: Superiorly – Inguinal ligament, Medially – Adductor longus, Laterally – Sartorius

Order of Structures in Femoral Triangle / Groin (lateral to medial)

"NAVEL": Nerve, Artery, Vein, Empty space, Lymphatics

Leg Anterior Compartment

"The Hospitals Are Not Dirty Places": Tibialis anterior, extensor Hallucis longus, anterior tibial Artery, deep fibular Nerve, extensor Digitorum longus, Peronius tertius

Cruciate Ligament Paths and Insertions

“PAMs ApPLes”: Posterior [passes] Anteriorly [and inserts] Medially; Anterior [passes] Posteriorly [and inserts] Laterally

Terrible (Unhappy) Triad Knee Injury (American football injury)

“ATM” for money-maker: Anterior cruciate ligament, Tibial (medial) collateral ligament, Medial meniscus

Leg Nerves

“FED”: Fibular nerve Everts and Dorsiflexes the foot

“TIP”: Tibial nerve Inverts and Plantarflexes the foot

Anatomy Mnemonics

AFA 222 FAF (plantar region of foot)

Layer 1: Abductor Hallucis, Flexor digitorum brevis, Abductor digiti minimi

Layer 2: Two tendons (Flexor Hallucis longus, flexor digitorum longus), Two muscles (lumbricles, quadratus plantae)

Layer 3: Flexor Hallucis brevis, Adductor Hallucis (oblique and transverse heads), Flexor digiti minimi brevis

Tarsal Tunnel Contents (superior to inferior)

“Tiny Dogs Are Not Hunters”: Tibialis posterior, flexor Digitorum longus, posterior tibial Artery, tibial Nerve, flexor Hallucis longus

Inguinal Canal Walls (superior moving around in order to posterior)

"2MALT: 2M, 2A, 2L, 2T":

Superior wall (roof): 2 Muscles: internal oblique Muscle, transverse abdominus Muscle

Anterior wall: 2 Aponeuroses: Aponeurosis of external oblique, Aponeurosis of internal oblique

Lower wall (floor): 2 Ligaments: inguinal Ligament, lacunar Ligament

Posterior wall: 2Ts: Transversalis fascia, conjoint Tendon

Tarsal Bones

"Traverse City (is) Noted (for) Michigan's Lovely Cherries": Talus Calcaneus (new row), Navicular (new row), Medial Intermediate cuneiforms, Lateral cuneiform, Cuboid

Hip Lateral Rotators (Femur Greater Trochanter Attachments)

“P-GO-GO-Q”: Piriformis Gemellus superior Obturator internus Gemellus inferior Obturator externus Quadratus femoris

Ribs (superior to inferior), **Neck** and **Sublingual Haitus** (medial to lateral)

“VAN”: Vein, Artery, Nerve

Vagal Nerve Path Into Thorax

“Not Left Behind”: Left is anterior (not behind), Right is posterior

Lung Vessels

“RALS”: Right lung artery is Anterior to bronchus, Left lung artery is Superior to bronchus

Structures Piercing The Diaphragm

“I 8 10 Eggs At 12”: T8 = IVC, T10 = Esophagus, T12 = Aorta

Heart Valves

“RAT, LAMB”: Right Atrial Tricuspid, Left Atrial Mitral (Bicuspid) – or –

“LAB RAT”: Left Atrial Bicuspid, Right Atrial Tricuspid

Spinal Nerves

"C3-4-5 keep the phrenic nerve (or diaphragm) alive"

"C5-6-7 raise your arms to heaven" (long thoracic nerve roots innervate serratus anterior)

Anatomy Mnemonics

Scrotum Layers (superficial to deep)

"Some Dang Englishman Called It The Testis": Skin, Dartos, External spermatic fascia, Cremaster, Internal spermatic fascia, Tunica vaginalis, Testis

Innervation of the Penis

"S2,3,4 keep the penis off the floor"

Refers to the innervation of the penis by branches of the pudendal nerve, which is derived from spinal cord levels S2-4.

Point, Shoot, Score

Parasympathetic for erection, Sympathetic for ejaculation, Somatomotor for ...

Great Vessels

"ABC'S": Aortic arch gives off the Brachiocephalic trunk, the left Common carotid, and the left Subclavian artery

"Boston College Stinks": right Brachiocephalic trunk, left Common carotid, left Subclavian artery

Portal Triad

"DAV": bile Duct, hepatic Artery, portal Vein

Liver Lobes

"GQ": The Gallbladder is next to the Quadrate lobe

Pathway After Stomach

"Dow Jones Industrial Climbing Average Closing Stock Report": Duodenum, Jejunum, Ileum, Cecum, Appendix, Colon (ascending/transverse), Sigmoid colon, Rectum

Spleen

"1,3,5,7,9,11"; It measures 1x3x5 inches, weighs 7 ounces and lies between ribs 9-11.

Thoracic Duct

"The duck is between two geese."

duck = thoracic duct

2 geese = azyGOUS vein and esophaGOUS

Epidermis

"Brent Spiner Gained Lieutenant Commander"

Basale, Spinosum, Granulosum, Lucidum, Corneum

Nasal Cavity Components

"Never Call Me Needle Nose!": external Nares, Conchae, Meatuses, internal Nares, Nasopharynx

Scalp Layers (superficial to deep)

"SCALP": Skin, Connective tissue, Aponeurosis, Loose areolar tissue, Pericranium

Horner's Syndrome Symptoms

“SPAM”: Sunken eyeballs/Sympathetic plexus (cervical) affected, Ptosis, Anhydrosis, Miosis

Bell’s Palsy Symptoms (Unilateral)

“BELL’S Palsy”: Blink reflex abnormal, Earache, Lacrimation (deficient, excess), Loss of taste, Sudden onset, Palsy of VII nerve muscles

Potentially Absent Muscles

“5 P’s”: Palmaris longus [upper limb] Plantaris [lower limb] Peroneus tertius [lower limb] Pyramidalis [anterior abdominal wall] Psoas minor [posterior abdominal wall]

Facial Bones

"Virgil Can Not Make My Pet Zebra Laugh!": Vomer, Conchae, Nasal, Maxilla, Mandible, Palatine, Zygomatic, Lacrimal

Deep Tendon Reflexes Root Supply (nursery rhyme)

One, two-- buckle my shoe. Three, four-- kick the door. Five, six-- pick up sticks. Seven, eight-- shut the gate. S1,2 = ankle jerk L3,4 = knee jerk C5,6 = biceps and brachioradialis C7,8 = triceps

Supraorbital Fissure

Structures that pass through it:

"Luscious French Tarts Sit Naked In Anticipation Of Sex."

Lacrimal nerve, Frontal nerve, Trochlear nerve, Superior branch of oculomotor nerve, Nasociliary nerve, Inferior branch of oculomotor nerve, Abducent nerve, Ophthalmic veins, Sympathetic nerves

Cranial Bones

"Old People From Texas Eat Spiders"

Occipital, Parietal, Frontal, Temporal, Ethmoid, Sphenoid

Cranial Nerves

I On (Olfactory)	I Some (Sensory)
II Old (Optic)	II Say (Sensory)
III Olympus (Oculomotor)	III Marry (primarily Motor)
IV Towering (Trochlear)	IV Money, (primarily Motor)
V Tops, (Trigeminal)	V But (Both)
VI A (Abducens)	VI My (primarily Motor)
VII Finn (Facial)	VII Brother (Both)
VIII And (Auditory)	VIII Says (Sensory)
IX German (Glossopharyngeal)	IX Big (Both)
X Viewed (Vagus)	X Bras (Both)
XI Astounding (Accessory)	XI Matter (primarily Motor)
XII Hops (Hypoglossal)	XII More (primarily Motor)

"You have 1 Nose & 2 Eyes": I - Olfactory.; II - Optic

Cranial Nerve Fibers (Phone Number)

1. Write SE SA VE VA SA VE VA SE "SE Save VA Save Vase"
 - a. Make sure there are spaces between the 2 letters
2. Write 4 "S" and 4 "G" before each pair of letters
 - a. Put a "p" after the 2nd G
3. The phone number to remember is 251-5303
4. Fill in with 7, 9, 10 and an 11 on the end for a goal post
5. The remainder involves using your imagination and maybe a little multiplication

SSE	SSA	SVE	SVA	GSA	GVEp	GVA	GSE
8	2	5	1	5	3	0	3
	8	7	7	7	7	7	4
		9	9	9	9	9	12
		10	10	10	10	10	6
							11

Extraocular Muscles

"LR6 - SO4 - rest3" or "(SO4LR6)3"
 LR6 Lateral rectus --> VI abducens
 SO4 Superior Oblique --> IV Trochlear
 Remaining 4 eyeball movers --> III oculomotor

Branches of Suclavian Artery

"VT is Cold": Vertebral, Thyrocervical trunk, Costocervical trunk

External Carotid Artery Branches

"Some Anatomists Like Freaking Out Poor Medical Students" or "Suzy Always Lays Flat On Pillows Making Sweets Terrific": Superior thyroid, Ascending pharyngeal, Lingual, Facial, Occipital, Posterior auricular, Maxillary, Superficial Temporal

Internal Jugular Vein (inferior to superior)

"Medical Schools Let Confident People In": Middle thyroid, Superior thyroid, Lingual, Common facial, Pharyngeal, Inferior petrosal sinus

Facial Nerve Branches

"Please, To Zanzibar By Motor Car" or "Ten Zombies Bought My Car"
 Posterior auricular, Temporal, Zygomatic, Buccal, Masseteric, Cervical

Trigeminal Nerve – Where Branches Exit Skull

"Standing Room Only": Superior orbital fissure (V1), foramen Rotundum (V2), foramen Ovale (V3)

Ansa Cervicalis Nerves

Anatomy Mnemonics

“GHost THought SOmeone STupid SHot Irene”: GenioHyoid, ThyroHyoid, Superior Omohyoid, SternoThyroid, SternoHyoid, Inferior omohyoid

Cervical Plexus – Arrangement of Important Nerves

“GLAST”: 4 compass points, clockwise from north on the right side of neck: Great auricular, Lesser occipital, Accessory nerve (pops out between L and S), Supraclavicular, Transverse cervical

CN V – V3 Innervated Muscles (Brachial Arch 1 Derivatives)

“M.D. My T.V.”: Mastication (masseter, temporalis, pterygoids), Digastric (anterior belly), MYlohyoid, tensor Tympani, tensor Veli palatini

V3 Sensory Branches

“Buccaneers Are Inferior Linguists”: Buccal, Auriculotemporal, Inferior alveolar, Lingual

Facial Expression Muscles (Making A Face To Say PSS)

“PSS”: Posterior belly of digastric, Stapedius, Stylohyoid

Lacrimal Nerve Course (Story of 8 L's)

Lacrimal nerve runs on Lateral wall of orbit above Lateral rectus, then Lets communicating branch join in, then supplies Lacrimal gland, then Leaves it and supplies Lateral upper eye Lid