Facial Region. Infraorbital Region. Zygomatic, Mental and Buccal Regions

Infraorbital Region

Boundaries

- > Superiorly infraorbital margin
- Inferiorly gingivobuccal fold
- Medially nasolabial sulcus
- Laterally -zygomatic region

Surface Anatomy

- > Skin thin
- Subcutaneous tissue containing infraorbital (sensory) and buccal (motor nerves), facial artery and vein
- Muscle layer orbiculus oculi, caninus, levator labii superioris, levator superioris alaeque nasi
- Canine fossa with infraorbital foramen (infraorbital artery, vein and news)
 Canine fossa with infraorbital foramen (infraorbital artery, vein and news)
 Intal Region
 Superiorly gingivobuccal fold
 Inferiorly mandibulartase
 Inferiorly mandibulartase
 Skin thick and hairy with sobscoous clonde

Mental Region

Boundaries

Surface Analon

- Skin thick and hairy with sebaceous glands
- Subcutaneous tissue arranged in lobules with fibrous bundles or muscle bundles
- Muscle layer depressor anguli oris, depressor labii inferioris, mentalis
- > Facial artery (gives rise to the inferior labial artery), mental artery (branch of mandibular artery) and vein, lymph nodes, mental nerve
- > Mandible

Zygomatic Region

Boundaries

Superiorly - boundaries of the zygomatic bone

Surface Anatomy

- > Skin thin
- Subcutaneous tissue
- > Muscle layer orbiculus oculi, zygomaticus major and minor
- Infraorbital nerve, zygomaticofacial nerve
- > Zygomatic bone

Paritdeomasseteric Region

Boundaries

- > Superiorly **zygomatic arch**
- > Inferiorly mandibular base and angle
- > Anteriorly anterior border of masseter
- > Posteriorly external acoustic porus and mastoid process

Surface Anatomy

- Skin relatively thick and hairy
- Subcutaneous tissue abundant fat tissue, has branches of auricular magnus nerve and superficial and deep parotid lymph nodes
- Parotid and masseter fascia
- > Superficial temporal artery and vein and auricotemporal nerve
- > Posterior auricular artery and facial nerve
- > Parotid duct
- Preview from Notesale.co.uk Page 12 of 65 ≻ Facial nerve → plexus intraparotideus
- Carotid bifurcation end branches
- Masseter artery, vein and nerve

Axillary Region

Pyramidal space inferior to the glenohumeral joint. Provides a passageway for the neurovascular structures that innervate the upper limb

Boundaries

- > Apex cervicoaxillary canal bounded by the 1st rib, clavicle and superior border of scapula
- Base formed by the concave skin, subcutaneous tissue and axillary fascia. It forms the axillary fossa
- > Anterior wall formed by the pectoralis major, minor and the pectoral fascia. The anterior axillary fold is the most inferior part
- > Posterior wall- formed by the subscapularis, teres major and latissimus dorsi. The anterior axillary fold is the most inferior part
- > Medial wall formed by the thoracic wall and serratus anterior
- > Lateral wall formed by intertubercular groove

Surface Anatomy

- ≻ Skin hairy
- Subcutaneous tissue
- Superficial axillary fascia
- Notesale.co.uk Axillary lymph nodes in fat (per fr l, lateral, pectoral, stateral) capular and apical)
- Lateral thoracic artery (inedial wall)
- Thoraccepting sinc vein (medial mall)
- Dig coracic nerve D Gera branches of intercostal nerves (medial wall)
- Thoracodorsal artery posterior wall)
- > Thoracodorsal nerve (posterior wall)
- > Neurovascular bundle in deep axillary sheath (axillary artery, vein, cords of brachial plexus)

Quadrangular Space

- > Superiorly teres minor
- Inferiorly teres major
- Medially long head of triceps
- Laterally humerus
- > Into this space passes the axillary nerve and posterior circumflex humeral artery

Triangular Space

- > Superiorly teres minor, subscapularis
- Medially long head of triceps
- > Inferiorly teres major
- > Into this space passes the **circumflex scapular artery**

Middle layer – Arachnoid Matter

- > Lays directly underneath dura matter
- Between dura and arachnoid = subdural space
- It consists of layers of connective tissue, is avascular and doesn't receive any innervation

Innermost layer – Pia Matter

- Arachnoid + Pia = Leptomeninges
- > Pia matter is located underneath the sub-arachnoid space
- > It is very thin and tightly adhered to surface of brain
- Highly vascularized, with blood vessels perforating through membrane to supply underlying tissue
- Between pia matter and arachnoid matter is the subarachnoid space which contains trabeculae and cerebrospinal fluid

Spinal Dura Matter

- Dura is made up of tough longitudinal collagen fibres interwoven with circular elastic fibres
- External surface is rough and blends with loose connective tis (1) in epidural space
- Internal surface, facing into subdural space is month and covered by a layer of mesoepithelium
- Inferiorly, dural sac ender it is oral canal, usually a (32-53 or sometimes S1)
- Dura continues childually as a fibrous mead named the filum terminalis externum, coccycle ligament, which bitres with the posterior longitudinal ligament over coccyx
- > Dura is also attached to spaces in PLL

Epidural Space

- > The epidural/ extradural space is a space outside the dura matter
- > The nerve roots transverse the space as they extend into intervertebral foramen
- > Space is occupied by loose connective tissue and fat
- Epidural space ends at the sacral hiatus, sealed by the posterior sacrococcygeal ligament

Abdominal Regions. Anterior Abdominal Wall. Inguinal Canal

Abdominal Regions

The abdominal cavity is split into **9 regions** by the **following planes** to describe the organs in their locations.

- Epigastrium bounded by the midclavicular planes on the side and the subcostal plane inferiorly, costal arch superiorly - contain stomach, liver, duodenum and pancreas
- Umbilical bounded by the midclavicular planes on the side, subcostal plane superiorly and the transtubercular plane inferiorly - contains small intestine, transverse colon, duodenum, head of pancreas
- Hypogastric (pubic) bounded by the midclavicular planes on the side, transtubercular plane superiorly - contains sigmoid colon, small intestine, urinary bladder and uterus
- Right hypochondriac lateral to the right midclavicular plane and the subtonal plane inferiorly contain right liver lobe and gallbladder
- Left hypochondriac lateral to the right mids a rouar plane and the subcostal plane inferiorly - contain left liver lobe, ston ach, spleen and left colic flexure
- Right lateral control to the right mideral idea in plane, subcostal plane superiorly, and the construct plane information of the right ascending colon and small intestine
- Left lateral lateral to the left midclavicular plane, subcostal plane superiorly, and the transtubercular plane inferiorly contain descending colon and small intestine
- Right inguinal lateral to the right midclavicular plane, the transtubercular plane superiorly - contain cecum, vermiform appendix and small intestine
- Left inguinal lateral to the left midclavicular plane, the transtubercular plane superiorly
 contain sigmoid colon and small intestine

Quadrants

Formed by the **medial plane** and the **umbilical plane** (passing through the umbilical region)

- ► Right upper quadrant
- Left upper quadrant
- Right lower quadrant
- Left lower quadrant

Midclavicular plane - from midpoint of clavicle to the midinguinal points Subcostal plane - passing through inferior border of 10th costal cartilage

Bulbospongiosus

- Perineal body
- > Fascia of bulb of penis and corpus spongiosum and cavernosum
- > Perineal branch of pudendal nerve
- > Compresses urethra and helps in erection of penis

Female

Ischiocavernosus – covers crus of clitoris

- > Ischial tuberosity
- Fascia covering corpus cavernosum
- Perineal branch of pudendal nerve
- Erection of clitoris

Bulbospongiosus – surrounds orifice of vagina and covers vestibular bulbs

- Perineal body
- Fascia of corpus cavernosum
- > Perineal branch of pudendal nerve

Ischioanal Fossa

- Sphincter of vagina and assists in erection of clitoris
 <u>hioanal Fossa</u>
 On each side of the anal canal
 Large fascia lined, wedge shaped spare boween the sim of the anal region and the polyic diaphroam Large fascia lined, wedge shaped pare to ween the shaped pare to

- > Fat bodies are traversed by inferior anal vessels and nerves, cutaneous nerves of S2 - S3, and the perineal branch of S4 nerve

Boundaries

- > Laterally ischium and obturator fascia
- > Medially external anal sphincter and levator ani
- Posteriorly sacrotuberous ligament and gluteus
- > Anteriorly bodies of pubic bones (anterior recesses)

Gluteal Region

Boundaries

- Superiorly level of iliac crests
- Inferiorly gluteal fold
- > Laterally line through anterior superior iliac spine
- > Medially intergluteal cleft

Surface Anatomy

- ≻ Skin
- > Subcutaneous tissue with cutaneous superior, medial and inferior cluneal nerves
- ➢ Gluteal fascia
- ➢ Gluteal muscles
- > Gluteal bursa
- > Superior gluteal artery, vein, nerve (passing through greater sciatic foramen superior to piriformis muscle)
- > Inferior gluteal artery, vein, nerve / sciatic nerve, inferior cluneal nerve loasing through greater sciatic foramen inferior to piriformis muscle)
- Internal pudendal artery and nerve (emerging from the trater static foramen and

passing through lesser sciatic foramen to enter program canal from 53 of 65 preview page 53 of 65

Anterior Region of Leg

- > Dorsiflexor (extensor) compartment
- > Bounded anteriorly by deep fascia of leg and skin
- > Deep fascia overlying the anterior compartment is dense superiorly, providing part of proximal attachment of muscle immediately deep to it
- > Inferiorly, 2 band-like thickenings of the fascia for retinacula that bind the tendons of anterior compartment muscles before and after they cross ankle joint, preventing them from bowstringing anteriorly during dorsiflexion of joint
- 1. Superior Extensor Retinaculum strong, broad band of deep fascia, passing from fibula to tibia, proximal to malleoli
- 2. Inferior Extensor Retinaculum Y-shaped band of deep fascia, attaches laterally to anterosuperior surface of calcaneus. Forms a strong loop around tendons of fibularis tertius and extensor digitorum muscles

Preview from Notesale.co.uk Page 58 of 65 Muscles of Anterior Compartment of Leg

- > Tibialis anterior
- Extensor digitorum longus
- Extensor halluces longus
- ➤ Fibularis tertius

Heel Region

Medial Malleolar Region

Borders

- Superiorly horizontal line, 2cm superior to medial malleolus
- > Inferiorly medial margin of foot sole
- Posteriorly midline
- > Anteriorly **line along the anterior margin of tibia and medial margin of foot sole** This region contains **tarsal tunnel** that is bounded by:
 - Medial malleolus
 - ≻ Talus
 - ≻ Calcaneus
 - Flexor retinaculum

It's **passed by tendons of long flexor muscles** and by neurovascular bundle supplying the foot sole

Anterior to the medial malleolus ascends great saphenous vein that's accompanied by saphenous nerve

Muscles, arteries and nerves are covered by the flexer strongulum, arranged in anterior to posterior:

- > Tibialis posterior tendon is furrounded by synoval speath
- Flexor digitorum longus
- Posterior titler artery gives offenalear branches and divides into medial and Deracilantar artery D 2 0
- > Tibial nerve divides into medial and lateral plantar nerve
- Flexor hallucis longus

Surface Anatomy

- Calcaneal tuberosity
- Posterior tibial artery
- Great saphenous vein

Lateral Malleolar Region

Borders

- Superiorly horizontal line 2cm superior to lateral malleolus
- > Inferiorly lateral margin of foot sole
- Anteriorly curved line from anterior margin of fibula and lateral malleolus to tuberosity of 5th metatarsal
- Posteriorly midline

Posterior to lateral malleolus ascends small saphenous vein

Sural nerve accompanies small saphenous vein - gives rise to calcanear branches and continues then into the lateral dorsal cutaneous nerve of the foot

Dorsum of Foot

Superficial Layer

Borders

- > Superiorly horizontal line between both malleoli
- > Laterally and medially margins of the foot

Vessels

- > Thin subcutaneous tissue contains well-developed dorsal venous network
- It's connected via the dorsal venous arch with great saphenous vein that ascends anterior to medial malleolus, and with the small saphenous vein that begins posterior to lateral malleolus

Nerves

- Medial dorsal cutaneous nerve and intermediate dorsal cutaneous nerve descend proximally and divide into the proper dorsal digital nerves
- At lateral margin of the foot occurs the lateral dorsal cutaneous nerve that ends at the lateral surface of the 5th toe
- The deep fibular nerve pierces the fascia between 1st and nd metatarsals and divides into the proper digital nerves for contigurates does of 1st and 2nd toes
- > Terminal branch of saphenous nerver to be down to base of 1st metatarsal

Middle Layer

- Tendons of errensor digitorum reng () and extensor hallucis longus become visible per removing of the faster of
- > They are covered by inferior extensor retinaculum
- Dorsal pedis artery runs lateral to tendon of extensor hallucis longus in the direction of the 1st interdigital space - it's distally crossed by tendon extensor hallucis brevis
- Dorsal metatarsal arteries lie between the tendons of the extensor digitorum brevis
 they divide into proper dorsal digital arteries at level of metatarsophalangeal joints

Deep Layer

- Course of dorsal pedis artery becomes available after dissection of extensor hallucis brevis
- It gives off to arcuate artery at the level of the base of the metatarsals that give rise to dorsal metatarsal arteries
- Terminal branch of the dorsalis pedis artery deep plantar artery pierces the 1st dorsal interosseous muscle and joins lateral plantar artery forming deep plantar arch