PrepLadder

Last 5 year PYQs in Anatomy for NEET PG

Q1. Which of the following forms the lateral boundary of the anatomical snuff box?

1. Extensor pollicis brevis and abductor pollicis longus
2. Extensor pollicis longus and abductor pollicis brevis
3. Extensor pollicis longus and extensor pollicis brevis
4. Abductor pollicis longus and abductor pollicis brevis

Ans. 1) Extensor pollicis brevis and abductor pollicis longus

- The extensor pollicis brevis and abductor pollicis longus muscles form the lateral boundary of the anatomical snuff box
- These two muscles create a prominent ridge that can be palpated on the lateral aspect of the wrist.

Q2. Which of the following is not used for the identification of the facial nerve trunk?

1. Retrograde dissection from distal branch
2. Tragal pointer
3. Inferior belly of omohyoid muscle
4. Posterior belly of digastric

Ans. 3) Inferior belly of omohyoid muscle

- Inferior belly of omohyoid muscle: The inferior belly of the omohyoid muscle is not directly associated with the identification of the facial nerve trunk.
- It is a muscle located in the neck region and is not typically used as a landmark or reference point for facial nerve identification.

Q3. Which of the following statements regarding anatomical closure is incorrect?

1. Anatomical closure of foramen ovale is by 3 to 5 days
2. Anatomical closure of ductus venosus is by 2 to 3 weeks
3. Right umbilical vein is absent after birth
4. Anatomical closure of ductus arteriosus is by 2 to 3 weeks

Ans. 1) Anatomical closure of foramen ovale is by 3 to 5 days

- Anatomical closure of the foramen ovale: The foramen ovale is a natural opening between the two atria in the fetal heart that allows blood to bypass the non-functional lungs.
- The closure is a **gradual process and may take a few weeks to months to complete.**

Q4. A patient presented with clinical features of ataxia and incoordination. This is due to thrombosis of which artery?

1. Posterior cerebral
2. Middle cerebral
3. Internal carotid
4. Superior cerebellar

Ans. 4) Superior cerebellar

- Ataxia and incoordination are neurological symptoms associated with the dysfunction of the cerebellum.
- Thrombosis in the superior cerebellarartery can lead to impaired blood flow to the cerebellum, resulting in ataxia and incoordination.

Q5. Which of the following structures prevents the upward extension of thyroid swelling through its attachment to the thyroid cartilage?

1. Pretracheal fascia
2. Sternothyroid
3. Thyrohyoid membrane
4. Ligament of berry

Ans. 2) Sternothyroid

- The sternothyroid muscle plays a role in preventing the upward extension of thyroid swelling.
- It is a strap-like muscle that originates from the sternum (specifically the manubrium) and inserts onto the thyroid cartilage of the larynx.
- Its position and attachment help limit the upward expansion of the thyroid gland.

Q6. A patient presented with vision loss. On radiological investigation, an aneurysm causing damage to the optic chiasma was noted. Which of the following arteries is most likely to be the artery that is causing the damage?

1. Anterior communicating artery
2. Anterior choroidal artery
3. Middle cerebral artery
4. Anterior cerebral artery

Ans. 1) Anterior communicating artery

- The anterior communicating artery is a blood vessel that connects the right and left anterior cerebral arteries.
- It runs just above the optic chiasm.
- An aneurysm in the anterior communicating artery can press against or compress the optic chiasm, leading to vision loss.

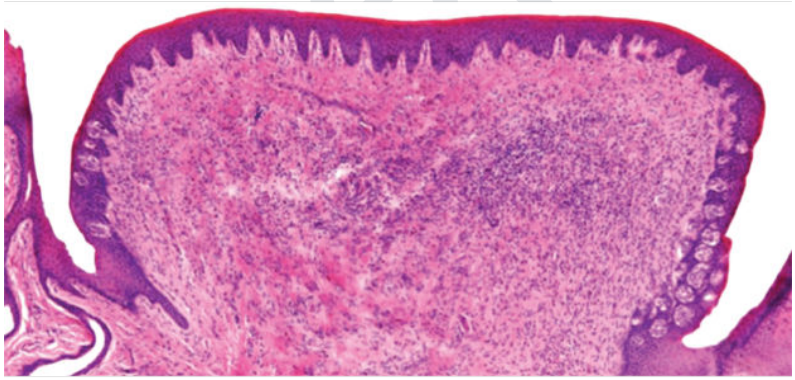
Q7. A 34-year-old man presented with a fever and massive splenomegaly. The spleen was 15 cm on palpation and directed obliquely when measured from the right iliac fossa. Which of the following structures prevents the vertical and downward descent of the spleen?

1. Lienorenal ligament
2. Gastrosplenic ligament
3. Phrenicocolic ligament
4. Lienophrenic ligament

Ans. 3) Phrenicocolic ligament

- The phrenicocolic ligament plays a crucial role in preventing the vertical and downward descent of the spleen.
- The phrenicocolic ligament is a fold of peritoneum that connects the left colic flexure to the diaphragm.
- It lies anterior to the spleen and helps to hold the spleen in an oblique position, preventing its vertical and downward displacement.

Q8. Identify the papillae from the given histological section.



1. Fungiform
2. Circumvallate
3. Filiform

4. Foliate

Ans. 2 : Circumvallate

- Circumvallate papillae are **large, circular-shaped papillae located on the posterior part of the tongue.**
- They are characterized by their distinct morphology, which includes a circular groove or trench surrounding the papilla.
- Location: Arranged in a V shape on the posterior part of the tongue.

Q9. A 7-year-old boy was brought to the hospital with multiple fractures of the humerus secondary to a fall from height. On examination, there is difficulty in flexion of the elbow and supination of the forearm and associated loss of sensation over the lateral aspect of the forearm. Which is the nerve most likely to be injured?

1. Median nerve
2. Radial nerve
3. Musculocutaneous nerve
4. Ulnar nerve

Ans. 3) Musculocutaneous nerve

- The musculocutaneous nerve innervates elbow flexion muscles like the biceps brachii and brachialis. It also aids in forearm supination via its branch, the lateral cutaneous nerve of the forearm, which supplies sensation to the forearm's lateral aspect.
- Consequently, difficulty in elbow flexion, supination, and loss of sensation in the forearm's lateral area suggest a musculocutaneous nerve injury, making it the most probable nerve involved.

Q10. A patient presented with jaw swelling and weight loss. Suspecting a malignancy, the submandibular gland was resected. Which is the most likely nerve to be damaged during submandibular gland resection?

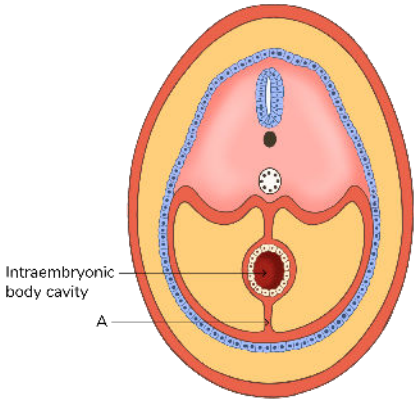
1. Nerve to mylohyoid
2. The inferior alveolar nerve
3. Lingual nerve
4. Hypoglossal nerve

Ans. 3) Lingual nerve

- During submandibular gland resection, the lingual nerve is the most likely nerve to be damaged.

- The lingual nerve innervates the anterior two-thirds of the tongue, floor of the mouth, and lingual gingiva. It runs near the submandibular gland, making it vulnerable during resection. Damage may cause altered sensation or taste perception in these regions.

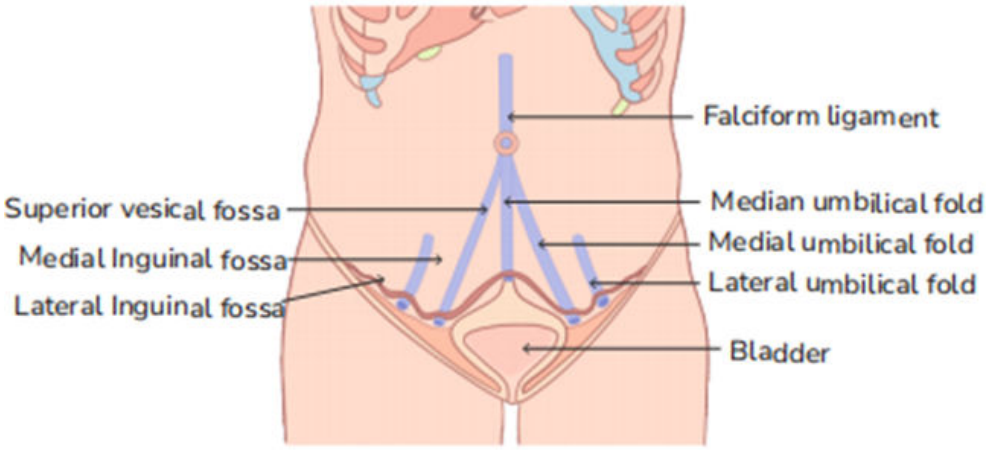
Q11. The structure marked A in the image below gives rise to which of the following structures?



1. Gastrosplenic ligament
2. Lienorenal ligament
3. Falciform ligament
4. Gastrophrenic ligament

Ans. 3) Falciform ligament

- The structure marked A in the image is a falciform ligament.
- This broad, lean, mesentery-like structure connects the liver to the anterior abdominal wall and separates the right and left lobes of the liver.



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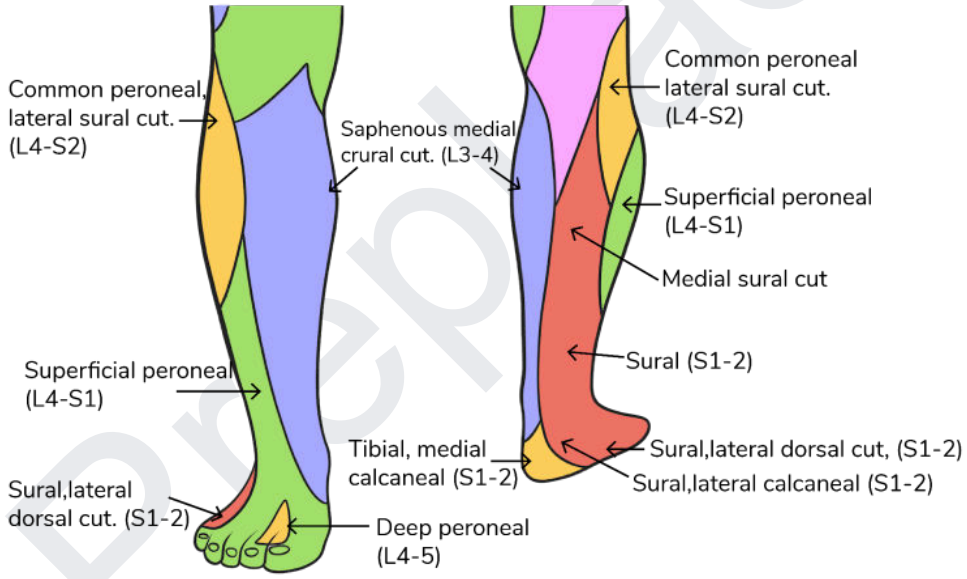
Q12. Which nerve is most likely to be damaged if a patient who had surgery for varicose veins now presents with sensory loss in the medial aspect of the leg and foot?

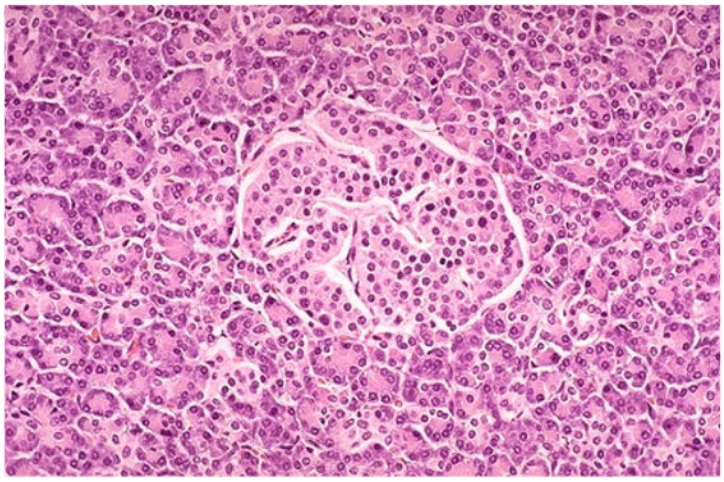
1. Sural nerve
2. Superficial peroneal nerve
3. Deep peroneal nerve
4. Saphenous nerve

Ans. 1) Sural nerve

- The sensory loss over the medial perspective of the leg and foot suggests damage to the saphenous nerve.
- The saphenous nerve rises from the femoral nerve, providing the skin on the medial side of the leg and foot.
- The root value of the saphenous nerve is L4.
- **The saphenous nerve** supplies the medial malleolus region and medial aspect of the dorsum of the foot but it does not reach the great toe.



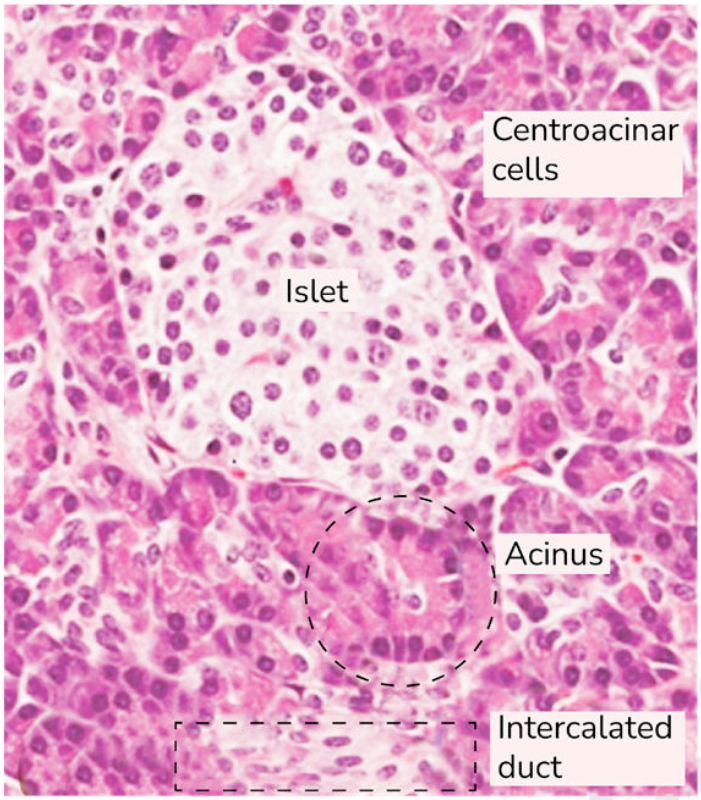
Q13. Identify the given structure?



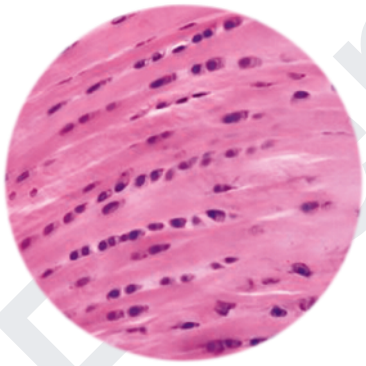
1. Lymph node
2. Glomerulus
3. Spleen
4. Pancreatic islet cells

Ans. 4) Pancreatic islet cells

- Pancreatic islet cells are clusters of endocrine cells within the pancreas that secrete hormones such as insulin and glucagon.
- Pancreatic islet cells are also known as islets of Langerhans.
- Each islet comprises a few distinctive sorts of cells, including alpha, beta, delta, and PP cells that work together to direct blood glucose levels.
- The islet cells are organized in a round or unpredictably molded cluster and are encompassed by a thin layer of connective tissue.



Q14. Identify the cartilage given below.

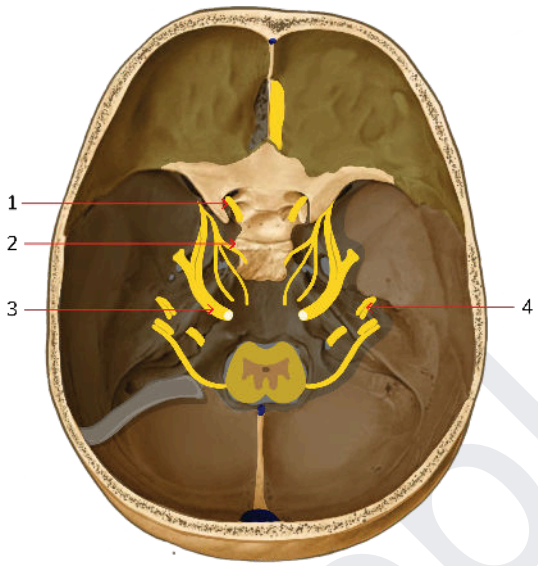


1. Non-articular hyaline cartilage
2. Articular hyaline cartilage
3. Yellow cartilage
4. White fibrocartilage

Ans. 4) White fibrocartilage

- It is a cartilage with collagen fibers arranged in parallel bundles, giving it its characteristic strength and unbending nature.
- White fibrocartilage is found in zones of the body where strength and support are required, such as the intervertebral discs, pubic symphysis, and menisci of the knee.

Q15. A patient presents with a unilateral throbbing headache, photophobia, and excessive lacrimation. He also complains of hemifacial pain on the clenching of teeth. On examination, pupillary reaction, light reflex, and accommodation reflex are normal. Which of the following marked nerves is involved in the above scenario?



1. 1
2. 2
3. 3
4. 4

Ans. 3) 3

- 3 is the right choice since the side effects depicted involve the **trigeminal nerve ophthalmic division (V1),** which supplies sensation to the forehead, scalp, and eye.

Cluster headaches are known for one-sided pain around the eye or temple, followed by autonomic symptoms like lacrimation, nasal blockage, and ptosis. Hemifacial pain triggered by teeth clenching is also common in trigeminal neuralgia, affecting any of its divisions but usually the maxillary or mandibular.

Q16. The movements at the _____ joint permit a person to look to the right and left

1. Atlanto-occipital
2. Atlanto -axial
3. C2-C3
4. C3-C4

Ans. 2) Atlanto-axial joint

The atlanto-axial joint is formed between the atlas (C1 vertebra) and the axis (C2 vertebra) in the spine. This joint is responsible for rotational movements of the head. The axis (C2) has a peg-like structure called the dens or odontoid process, which fits into the atlas (C1), allowing for rotation. Therefore, the atlanto-axial joint permits the specific movements required for looking to the right and left.

Q17. Which of the following statements is false regarding the right coronary artery?

1. Its diameter is less than left coronary artery
2. It arises from the right aortic sinus
3. It gives rise to circumflex coronary branch
4. Right conal artery is it's first branch

Ans. 3) It gives rise to the circumflex coronary branch.

This statement is false. The right coronary artery does not typically give rise to the circumflex coronary branch. The circumflex branch is a branch of the left coronary artery. It wraps around the left side of the heart and supplies blood to the left atrium and portions of the left ventricle.

Q18. What is the basis for the formation of omphaloceles?

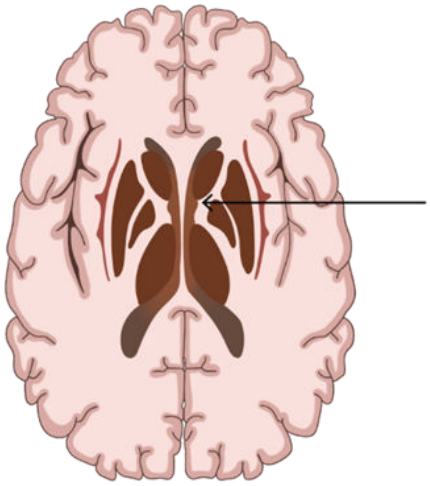
1. Excessive length of the intestinal
2. Physiological hernia failing to go back
3. Herniation of liver
4. Herniation of umbilicus

Ans. 2) Physiological hernia failing to go back

Omphalocele is believed to result from a physiological herniation of abdominal organs into the base of the umbilical cord during early fetal development. Normally, the abdominal contents herniate into the umbilical cord at around 6 weeks of gestation but then return back into the

abdominal cavity. However, in the case of omphalocele, this physiological herniation fails to go back, resulting in the persistence of the herniated organs outside the abdominal cavity.

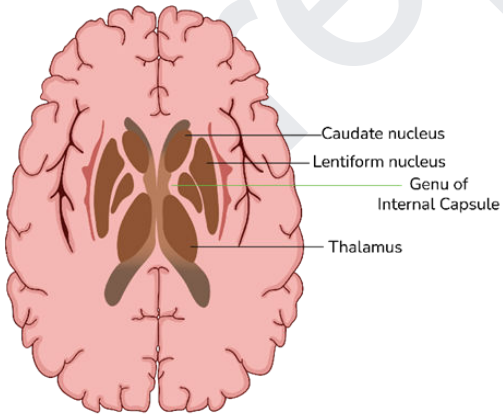
Q19. Which fibre is marked by the arrow in the image given below?



1. Short association
2. Long association
3. Projection
4. Commissural

Ans. 3) Projection

The region marked in the image is the genus of the internal capsule. The internal capsule is composed of projection fibers passing to and from the brainstem and the cerebral cortex. It consists of 3 parts: an anterior limb, a posterior limb, and a genus.



Projection fibers are neural fibers that transmit signals between the cerebral cortex and lower brain regions or the spinal cord. They carry sensory information from the peripheral nervous

system to the brain (ascending pathways) and motor commands from the brain to the peripheral nervous system (descending pathways).

Q20. Which of the following structures does not form the boundaries of the Calot triangle?

1. Common hepatic duct
2. Cystic duct
3. Cystic artery
4. Gall bladder

Ans. 4) Gallbladder

- The gallbladder is not considered one of the boundaries of the Calot triangle.
- The Calot triangle is an anatomical space located between the cystic duct, common hepatic duct, and cystic artery.