The pituitary gland is located in which part of the skull?

A) Ethmoid bone

B) Frontal bone

C) Sella turcica

D) Temporal bone

✅ C) Sella turcica

The pituitary gland is also known as the:

A) Pineal gland

B) Master gland

C) Hypothalamus

D) Thyroid

✅ B) Master gland

Which structure directly controls the pituitary gland?

A) Cerebellum

B) Hypothalamus

C) Medulla

D) Thalamus

✅ B) Hypothalamus

The pituitary gland is connected to the hypothalamus via the:

A) Corpus callosum

B) Infundibulum

C) Cerebral aqueduct

D) Chiasma

✅ B) Infundibulum

Which lobe of the pituitary gland produces more hormones?

A) Anterior

B) Posterior

C) Both equally

D) None

✅ A) Anterior

The anterior pituitary is also known as the:

A) Neurohypophysis

B) Adenohypophysis

C) Thalamus

D) Medulla

✅ B) Adenohypophysis

Which lobe of the pituitary stores hormones produced by the hypothalamus?

A) Anterior

B) Posterior

C) Intermediate

D) None

✅ B) Posterior

Oxytocin is stored in which part of the pituitary gland?

A) Anterior

B) Posterior

C) Intermediate

D) None

✅ B) Posterior

Growth hormone is secreted by:

A) Posterior pituitary

B) Anterior pituitary

C) Pineal gland

D) Adrenal cortex

✅ B) Anterior pituitary

ADH (Antidiuretic Hormone) is:

A) Produced in anterior pituitary

B) Stored in posterior pituitary

C) Produced in adrenal gland

D) Not related to pituitary

✅ B) Stored in posterior pituitary

Which hormone stimulates the thyroid gland?

A) ACTH

B) GH

C) TSH

D) FSH

✅ C) TSH

Which hormone is responsible for milk production?

A) Oxytocin

B) Prolactin

C) LH

D) ADH

✅ B) Prolactin

FSH is mainly involved in:

A) Blood pressure regulation

B) Glucose metabolism

C) Reproductive functions

D) Immune response

✅ C) Reproductive functions

The pituitary gland sits in the:

A) Optic chiasma

B) Sphenoid bone

C) Occipital bone

D) Mandible

✅ B) Sphenoid bone

The posterior pituitary is made up of:

A) Glandular tissue

B) Neural tissue

C) Cartilage

D) Muscle tissue

✅ B) Neural tissue

The infundibulum connects the pituitary to the:

A) Medulla

B) Hypothalamus

C) Pineal gland

D) Thalamus

✅ B) Hypothalamus

Where is the pituitary gland located relative to the hypothalamus?

A) Lateral

B) Above

C) Below

D) Posterior

✅ C) Below

The anterior pituitary originates from:

A) Neural tissue

B) Oral ectoderm

C) Mesoderm

D) Endoderm

✅ B) Oral ectoderm (Rathke's pouch)

The posterior pituitary develops from:

A) Oral ectoderm

B) Neural ectoderm"infundibulum"

C) Mesoderm

D) Endoderm

✅ B) Neural ectoderm

Which gland is known as the hypophysis?

A) Thyroid

B) Pituitary

C) Adrenal

D) Pineal

✅ B) Pituitary

The pituitary gland develops from how many embryonic sources?

A) One

B) Two

C) Three

D) Four

✅ B) Two (oral ectoderm & neural ectoderm)

Rathke's pouch gives rise to the:

A) Posterior pituitary

B) Infundibulum

C) Anterior pituitary

D) Pineal gland

✅ C) Anterior pituitary

The infundibulum develops into:

A) Pars distalis

B) Pars intermedia

C) Pars nervosa

D) Rathke's pouch

✅ C) Pars nervosa

The anterior lobe of the pituitary is also called:

A) Neurohypophysis

B) Adenohypophysis

C) Mesohypophysis

D) Diencephalon

✅ B) Adenohypophysis

The posterior lobe of the pituitary is called:

A) Adenohypophysis

B) Neurohypophysis

C) Epiphysis

D) Thalamus

✅ B) Neurohypophysis

Rathke's pouch originates from which part of the embryo?

A) Pharyngeal floor

B) Roof of the stomodeum

C) Midgut

D) Optic vesicle

✅ B) Roof of the stomodeum

Which structure degenerates during pituitary development?

A) Pars distalis

B) Pars intermedia

C) Stem connecting this vesicle to the roof of the stomodeum

D) Infundibulum

✅ C) Stem connecting this vesicle to the roof of the stomodeum

The neurohypophysis is derived from:

A) Diencephalon

B) Telencephalon

C) Metencephalon

D) Myelencephalon

✅ A) Diencephalon

Which week does Rathke's pouch first appear?

A) Week 2

B) Week 3

C) Week 4

D) Week 5

✅ C) Week 4

Which of the following is not part of the adenohypophysis?

A) Pars distalis

B) Pars intermedia

C) Pars nervosa

D) Pars tuberalis

✅ C) Pars nervosa

The pars nervosa contains:

A) Endocrine cells

B) Axons of hypothalamic neurons

C) Epithelial cells

D) Cartilage

✅ B) Axons of hypothalamic neurons

The hypophyseal portal system"vascular" connects the hypothalamus to:

A) Posterior pituitary

B) Pars intermedia

C) Anterior pituitary

D) Thalamus

✅ C) Anterior pituitary

The pituitary gland lies in which embryological brain region?

A) Telencephalon

B) Diencephalon

C) Metencephalon

D) Myelencephalon

✅ B) Diencephalon

The interaction between the oral ectoderm and neuroectoderm is crucial for the formation of the:

A) Pineal gland

B) Pituitary gland

C) Adrenal cortex

D) Thyroid gland

✅ B) Pituitary gland

Which structure forms the stalk of the posterior pituitary?

A) Rathke's pouch

B) Pars distalis

C) Infundibulum

D) Mammillary body

✅ C) Infundibulum

The lumen of Rathke's pouch becomes:

A) Pars intermedia

B) Pars nervosa

C) Infundibulum

D) Rathke's cleft

✅ D) Rathke's cleft

The anterior pituitary attaches to the hypothalamus via the:

A) Infundibulum

B) Portal vessels

C) Pituitary stalk

D) Median eminence

✅ B) Portal vessels

Which of the following structures is NOT derived from Rathke's pouch?

A) Pars distalis

B) Pars intermedia

C) Pars tuberalis

D) Pars nervosa

✅ D) Pars nervosa

Which of the following best describes the origin of the anterior pituitary?

A) Outgrowth from diencephalon

B) Neural crest derivative

C) Invagination of oral ectoderm

D) Endodermal thickening

✅ C) Invagination of oral ectoderm

Which embryonic brain region contributes to posterior pituitary formation?

A) Telencephalon

B) Diencephalon

C) Mesencephalon

D) Myelencephalon

✅ B) Diencephalon

Pituitary gland anomalies often result in dysfunction of which system?

A) Digestive

B) Respiratory

C) Endocrine

D) Immune

✅ C) Endocrine

A persistent craniopharyngeal canal is a remnant of:

A) Infundibulum

B) Rathke's pouch

C) Hypothalamus

D) Pineal diverticulum

✅ B) Rathke's pouch

Which pituitary lobe lacks secretory cells?

A) Pars distalis

B) Pars intermedia

C) Pars nervosa

D) Pars tuberalis

✅ C) Pars nervosa

The adenohypophysis is mainly involved in:

A) Neural conduction

B) Hormone storage

C) Hormone secretion

D) CSF production

✅ C) Hormone secretion

Enumerate parts of Adenohypophysis (anterior lobe) ??

▪ composed of:

✓ Pars tuberalis: upwards in front of the infundibulum???

✓ Pars intermedia: (at the back of the cleft)

✓ Pars distalis: (in front of the cleft)

What are the lateral relations to pituitary gland?

Cavernous sinus and its contents.	
lateral wall (Nerves)	Floor (Artery & nerve)
▪ oculomotor, trochlear. ▪ ophthalmic (V_1) , maxillary (V_2).	▪ internal carotid artery ▪ abducent nerve (x in squint

What are Derivatives Of Rathke's Pouch?

- ✓ Pars anterior (pars distalis): is derived from the anterior wall of the vesicle
- ✓ Pars intermedia: is derived from the posterior wall of the vesicle
- ✓ Pars tuberalis: is an upward extension of the wall of the vesicle to surround the stalk of the infundibulum which descends from the diencephalon.

Enumerate some congenital anomalies of pituitary gland

- ✓ Pharyngeal pituitary gland ”accessory pituitary gland”
- ✓ Aplasia & hypoplasia of pituitary gland

Where is the thyroid gland located?

A. Behind the trachea

B. In lower part of front of neck

C. Above the larynx

D. Inside the thoracic cavity

Answer: B

The thyroid gland is made up of how many lobes?

A. One

B. Two

C. Three

D. Four

Answer: B

What connects the two lobes of the thyroid gland?

A. Thyroid cartilage

B. Parathyroid gland

C. Isthmus

D. Hyoid bone

Answer: C

Which of the following arteries supplies the thyroid gland?

A. Superior thyroid artery

B. Maxillary artery

C. Basilar artery

D. Internal carotid artery

Answer: A

Which nerve is most closely related to the inferior thyroid artery?

A. Vagus nerve

B. Phrenic nerve

C. Recurrent laryngeal nerve

D. Glossopharyngeal nerve

Answer: C

Which fascia encloses the thyroid gland?

A. Pre-tracheal fascia

B. Investing fascia

C. Buccopharyngeal fascia

D. Carotid sheath

Answer: A

The pyramidal lobe of the thyroid gland is a remnant of which structure?

A. Ductus venosus

B. Ductus arteriosus

C. Thyroglossal duct

D. Branchial arch

Answer: C

Which vein drains the thyroid gland?

A. Inferior thyroid vein

B. Facial vein

C. Maxillary vein

D. Occipital vein

Answer: A

The thyroid gland originates from which embryological structure?

A. 3rd pharyngeal pouch

B. 4th pharyngeal pouch

C. Floor of the primitive pharynx

D. Neural crest cells

Answer: C

Failure of thyroglossal duct regression can result in:

A. Goiter

B. Thyroglossal cyst

C. Branchial fistula

D. Laryngocele

Answer: B

Ectopic thyroid tissue is most commonly found:

A. In the mediastinum

B. At the base of the tongue

C. In the cervical vertebrae

D. In the adrenal glands

Answer: B

The thyroid gland reaches its final position by which week?

A. 4th week

B. 5th week

C. 7th week

D. 10th week

Answer: C

How many parathyroid glands are typically present in the human body?

A. Two

B. Four

C. Six

D. Eight

Answer: B

The parathyroid glands are usually located:

A. In front of the thyroid

B. Posterior border of thyroid gland

C. Inside the thyroid lobes

D. On the trachea

Answer: B

Which artery mainly supplies the parathyroid glands?

A. Internal carotid artery

B. Inferior thyroid artery

C. Facial artery

D. Lingual artery

Answer: B

Parathyroid hormone regulates:

A. Sodium levels

B. Potassium levels

C. Calcium levels

D. Magnesium levels

Answer: C

Superior parathyroid glands develop from which pharyngeal pouch?

A. 1st

B. 2nd

C. 3rd

D. 4th

Answer: D

Inferior parathyroid glands develop from which pharyngeal pouch?

A. 2nd

B. 3rd

C. 4th

D. 5th

Answer: B

The parathyroid glands are derived from which germ layer?

A. Ectoderm

B. Endoderm

C. Mesoderm

D. Neural crest

Answer: B

The 3rd pharyngeal pouch gives rise to the:

A. Inferior parathyroid

B. Thyroid and thymus

C. Larynx and epiglottis

D. Superior parathyroid and thyroid

Answer: A

Ectopic parathyroid tissue is most commonly found in the:

A. Mediastinum

B. Brain

C. Lungs

D. Kidneys

Answer: A

Which of the following best describes the anatomical position of the thyroid gland?

A. Between C2 and C5

B. Between C5 and T1

C. Behind the esophagus

D. Inferior to the clavicle

Answer: B

Which lymph nodes first receive lymphatic drainage from the thyroid gland?

A. Submental nodes

B. Deep cervical nodes

C. Axillary nodes

D. Preauricular nodes

Answer: B

The thyroid gland begins to develop during which week of gestation?

A. 2nd week

B. 3rd week

C. 4th week

D. 6th week

Answer: C

What is the embryological origin of the follicular cells of the thyroid?

A. Mesoderm

B. Endoderm

C. Ectoderm

D. Neural crest

Answer: B

The foramen cecum represents the origin of which structure?

A. Submandibular gland

B. Parotid gland

C. Thyroglossal duct

D. Palatine tonsil

Answer: C

What is a possible midline neck mass that moves with swallowing and tongue protrusion?

A. Dermoid cyst

B. Thyroglossal duct cyst

C. Lipoma

D. Goiter

Answer: B

Lingual thyroid occurs due to:

A. Thyroid agenesis

B. Overactive thyroid

C. Failure of thyroid migration

D. Thyroid carcinoma

Answer: C

Which part of the pharynx gives rise to the thyroid gland?

A. Dorsum of tongue

B. Second pharyngeal arch

C. Floor of primitive pharynx

D. Roof of nasal cavity

Answer: C

The thyroglossal duct extends from the foramen cecum to the:

A. Sternum

B. Cricoid cartilage

C. Final position of thyroid gland

D. Epiglottis

Answer: C

A thyroglossal duct cyst is located:

A. Laterally in the neck

B. Midline near hyoid bone

C. Behind sternum

D. In the axilla

Answer: B

Where are the parathyroid glands usually located?

A. On anterior surface of thyroid

B. On posterior surface of thyroid

C. Within adrenal gland

D. Inside the trachea

Answer: B

Parathyroid glands are supplied by branches of which artery?

A. Superior thyroid artery

B. Inferior thyroid artery

C. Subclavian artery

D. External carotid artery

Answer: B

Parathyroid glands develop from:

A. 1st and 2nd pharyngeal pouches

B. 2nd and 3rd pharyngeal pouches

C. 3rd and 4th pharyngeal pouches

D. 4th and 5th pharyngeal pouches

Answer: C

Mention relations to surfaces of thyroid gland

Lateral surface	Posterior surface	Medial surface
Superficial (lateral) surface, is full & rounded & is Covered by: ✓ Superior belly of omohyoid, at its upper part. ✓ Sternomastoid, at its lower part. ✓ Sternohyoid & Sternothyroid, at middle Not related to thyrohyoid	Carotid sheath: ✓ Common carotid artery ✓ Internal jugular vein ✓ Vagus in between	1. Upper part: ✓ Larynx ✓ Pharynx ✓ External laryngeal nerve in between 2. Lower part: ✓ Trachea ✓ Esophagus ✓ Recurrent laryngeal n. in between

Mention relations to borders of isthmus of thyroid gland

- ✓ Upper border: shows anastomosis between the two superior thyroid arteries
- ✓ Lower border: related to inferior thyroid veins, thyroidea ima, anastomosis between inferior thyroid arteries

Which arteries supply thyroid gland ?

Superior thyroid artery

Inferior thyroid artery

Thyroid ima artery

Accessory thyroid arteries: From the esophageal and tracheal branches

Continue :

- To avoid injury of external laryngeal n while ligating superior thyroid artery ligate it …….. the gland
  Answer→ **near to**
- To avoid injury of recurrent laryngeal n while ligating inferior thyroid artery ligate it …….. the gland
  Answer → **away from**

The pancreas is located in which region of the abdomen?

A) Right hypochondrium

B) Lower part of posterior abdominal wall

C) upper part of posterior abdominal wall

D) Umbilical Region

✅ C) upper part of posterior abdominal wall

The pancreas is both:

A) Exocrine only

B) Endocrine only

C) Endocrine and exocrine

D) Neither

✅ C) Endocrine and exocrine

Which part of the pancreas lies in the C-loop of the duodenum?

A) Head

B) Neck

C) Body

D) Tail

✅ A) Head

The tail of the pancreas is located near which organ?

A) Kidney

B) Spleen

C) Liver

D) Stomach

✅ B) Spleen

The endocrine part of the pancreas consists of:

A) Acini

B) Ducts

C) Islets of Langerhans

D) Villi

✅ C) Islets of Langerhans

Beta cells of the pancreas secrete:

A) Glucagon

B) Insulin

C) Somatostatin

D) Gastrin

✅ B) Insulin

Alpha cells of the pancreas secrete:

A) Insulin

B) Amylase

C) Glucagon

D) Lipase

✅ C) Glucagon

The exocrine part of the pancreas secretes enzymes into the:

A) Bloodstream

B) Bile duct

C) Duodenum

D) Stomach

✅ C) Duodenum

The uncinate process is part of the:

A) Tail

B) Head

C) Neck

D) Body

✅ B) Head

The head of the pancreas is related posteriorly to:

A) Splenic vein

B) Portal vein

C) Inferior vena cava

D) Splenic vein

✅ C) Inferior vena cava

The neck of the pancreas lies anterior to the beginning of :

A) Renal vein

B) Splenic vein

C) Portal vein

D) Superior mesenteric artery

✅ C) Portal vein

The main duct of the pancreas joins which structure to form the hepatopancreatic ampulla?

A) Common bile duct

B) Right hepatic duct

C) Left hepatic duct

D) Gallbladder

✅ A) Common bile duct

The hepatopancreatic ampulla opens into the duodenum at the:

A) Major duodenal papilla

B) Minor duodenal papilla

C) Pyloric sphincter

D) Ileocecal valve

✅ A) Major duodenal papilla

The pancreas develops from which embryonic structure?

A) Mesoderm

B) Endoderm

C) Ectoderm

D) Neural crest

✅ B) Endoderm

The pancreas arises from how many buds?

A) One

B) Two

C) Three

D) Four

✅ B) Two (dorsal and ventral)

The dorsal pancreatic bud forms which parts of the pancreas?

A) Head and uncinate process

B) Body and tail

C) Neck and head

D) Only uncinate process

✅ B) Body and tail

The ventral pancreatic bud gives rise to:

A) Tail

B) Body

C) Head and uncinate process

D) Duct only

✅ C) Head and uncinate process

The main pancreatic duct is primarily derived from the:

A) The whole Dorsal bud

B) The whole Ventral bud

C) Hepatic diverticulum

D) Midgut

✅ B) The whole Ventral bud

An annular pancreas is caused by abnormal rotation of the:

A) Dorsal bud

B) Ventral bud

C) Hepatic bud

D) Gastric tube

✅ B) Ventral bud

The pancreas becomes secondarily retroperitoneal during development. What does this mean?

A) It remains intraperitoneal

B) It is initially retroperitoneal

C) It fuses to the posterior abdominal wall

D) It becomes mesenteric

✅ C) It fuses to the posterior abdominal wall

Insulin secretion begins around:

A) Week 5

B) Week 10

C) Week 20

D) Birth

✅ C) Week 20

Which part of the pancreas is most often involved in congenital anomalies?

A) Tail

B) Body

C) Head

D) Uncinate process

✅ C) Head

Which part of the pancreas forms first during embryonic development?

A) Ventral bud

B) Dorsal bud

C) Uncinate process

D) Tail

✅ B) Dorsal bud

Which bud gives rise to the pancreatic tail?

A) Ventral

B) Dorsal

C) Both

D) Neither

✅ B) Dorsal

What causes annular pancreas?

A) Failure of dorsal bud to develop

B) Duplication of dorsal bud

C) Bifid ventral bud encircling the duodenum

D) Absence of PDX1 gene

✅ C) Bifid ventral bud encircling the duodenum

The ventral bud rotates around which structure?

A) Inferior vena cava

B) Aorta

C) Duodenum

D) Portal vein

✅ C) Duodenum

The exocrine pancreas develops from:

A) Mesoderm

B) Endoderm

C) Neural crest

D) Ectoderm

✅ B) Endoderm

Which structure develops into the hepatopancreatic ampulla?

A) Dorsal bud

B) Ventral bud

C) Fusion of main pancreatic duct and bile duct

D) Portal vein

✅ C) Fusion of main pancreatic duct and bile duct

The dorsal pancreatic bud arises from the:

A) Foregut endoderm

B) Hindgut endoderm

C) Midgut mesoderm

D) Neural tube

✅ A) Foregut endoderm

Pancreas divisum is due to failure of fusion between:

A) Left and right lobes

B) Endocrine and exocrine parts

C) Ventral and dorsal ducts

D) Islets and acini

✅ C) Ventral and dorsal ducts

Which part of the duodenum does the pancreatic duct open into?

A) First part

B) Second part

C) Third part

D) Fourth part

✅ B) Second part

Insulin can be detected in fetal blood by which week?

A) 8

B) 12

C) 20

D) 28

✅ C) 20

What is the anterior relation of head of pancreas?

TMJ

1) The transverse colon.

2) The superior mesenteric vessels: in front of the uncinate process.

3) The coils of the Jejunum.

What is the anterior relation of neck of pancreas?

3P

1) The pylorus.

2) 1st part of the duodenum.

3) The peritoneum of the lesser sac.

Where does pancreas develop from?

arise from the caudal part of the foregut.

▪ Most of the pancreas is derived from the larger dorsal pancreatic bud, which appears first.

▪ The smaller ventral pancreatic bud gives Uncinate process & part of the head of pancreas.

Enumerate some pancreatic anomalies

Annular pancreas

Accessory pancreatic tissue

Hyperplasia of pancreatic islets

Compare between RT& LT Suprarenal Gland

	Right Suprarenal Gland	Left Suprarenal Gland
Shape	Pyramidal	Semilunar
Anterior relations	IVC Bare area of the liver.	lesser sac (stomach bed) stomach.
Posterior relations	Right crus of diaphragm Right kidney.	Left crus of diaphragm Left kidney.
Hilum	Directed upwards	Directed downwards
Supra-renal	ends in the inferior vena cava.	veins ends in the left renal vein.
Supra-renal arteries	Superior suprarenal artery: from inferior phrenic artery. Middle suprarenal artery: from abdominal aorta Inferior suprarenal artery: from the renal artery	

All repro ques

Dr: Fatma Tarek

Which of the following is the primary function of the testes?

A) Secretion of estrogen

B) Production of sperm

C) Secretion of progesterone

D) Regulation of body temperature

✅ Answer: B) Production of sperm

Where does fertilization usually take place in the female reproductive system?

A) Ovary

B) Fallopian tube

C) Uterus

D) Vagina

✅ Answer: B) Fallopian tube

What is the primary function of the uterus?

A) Production of estrogen

B) Storage of eggs

C) Development of the fetus

D) Secretion of progesterone

✅ Answer: C) Development of the fetus

Which structure in the male reproductive system stores sperm?

A) Epididymis

B) Prostate

C) Urethra

D) Seminal vesicle

✅ Answer: A) Epididymis

What is the main function of the ovaries?

A) Secretion of estrogen and progesterone

B) Production of sperm

C) Development of the placenta

D) Contraction during labor

✅ Answer: A) Secretion of estrogen and progesterone

Which part of the male reproductive system produces testosterone?

A) Seminiferous tubules

B) Prostate gland

C) Leydig cells

D) Epididymis

✅ Answer: C) Leydig cells

Which structure connects the uterus to the vagina?

A) Fallopian tube

B) Ovary

C) Cervix

D) Endometrium

✅ Answer: C) Cervix

Which of the following structures arises from the Müllerian ducts?

A) Epididymis

B) Vas deferens

C) Uterus

D) Seminal vesicles

✅ Answer: C) Uterus

The Wolffian ducts in male development give rise to:

A) Uterus and fallopian tubes

B) Seminal vesicles, vas deferens, and epididymis

C) Testes

D) Prostate and penis

✅ Answer: B) Seminal vesicles, vas deferens, and epididymis

The process of sperm production is known as:

A) Oogenesis

B) Spermatogenesis

C) Fertilization

D) Cleavage

✅ Answer: B) Spermatogenesis

At what week of gestation is sex differentiation typically visible via ultrasound?

A) Week 6

B) Week 10

C) Week 14

D) Week 20

✅ Answer: C) Week 14

Which embryonic layer gives rise to the reproductive organs?

A) Ectoderm

B) Endoderm

C) Mesoderm

D) Neural crest

✅ Answer: C) Mesoderm

Which gene is responsible for initiating male sex development?

A) DAX1

B) SOX9

C) SRY

D) TDF

✅ Answer: C) SRY

Which of the following structures is homologous to the penis in females?

A) Labia minora

B) Clitoris

C) Uterus

D) Ovaries

✅ Answer: B) Clitoris

The absence of which hormone leads to development of female reproductive tract?

A) Estrogen

B) Testosterone

C) Müllerian inhibitory substance (MIS)

D) Dihydrotestosterone (DHT)

✅ Answer: C) Müllerian inhibitory substance (MIS)

Testicular descent is guided by a structure called:

A) Wolffian duct

B) Spermatic cord

C) Gubernaculum

D) Scrotal ligament

✅ Answer: C) Gubernaculum

In the male, which of the following carries both urine and semen?

A) Vas deferens

B) Epididymis

C) Urethra

D) Prostate

✅ Answer: C) Urethra

Which hormone is responsible for development of secondary sexual characteristics in males?

A) FSH

B) LH

C) Estrogen

D) Testosterone

✅ Answer: D) Testosterone

Which structure in females is analogous to the scrotum in males?

A) Labia majora

B) Clitoris

C) Labia minora

D) Urethral opening

✅ Answer: A) Labia majora

At what week of gestation does sexual differentiation begin in humans?

A) Week 4

B) Week 7

C) Week 8

D) Week 12

✅ Answer: B) Week 7

During development, what does the genital tubercle become in males?

A) Scrotum

B) Penis

C) Urethra

D) Testes

✅ Answer: B) Penis

Which embryonic structure gives rise to the clitoris in females?

A) Urogenital sinus

B) Labioscrotal swellings

C) Genital tubercle

D) Müllerian duct

✅ Answer: C) Genital tubercle

Which hormone is responsible for male external genitalia development?

A) Testosterone

B) Estrogen

C) Progesterone

D) Dihydrotestosterone (DHT)

✅ Answer: D) Dihydrotestosterone (DHT)

In the absence of testosterone, the Wolffian ducts:

A) Differentiate into male structures

B) Regress

C) Form the uterus

D) Develop into the testes

✅ Answer: B) Regress

Which structure prevents the development of Müllerian ducts in males?

A) Testosterone

B) Estrogen

C) Müllerian inhibiting substance (MIS)

D) FSH

✅ Answer: C) Müllerian inhibiting substance (MIS)

In females, the urogenital sinus develops into:

A) Urethra and lower vagina

B) Ovaries

C) Uterine tubes

D) Labia majora

✅ Answer: A) Urethra and lower vagina

Which layer of the embryo gives rise to the gonads?

A) Ectoderm

B) Endoderm

C) Intermediate mesoderm

D) Neural crest

✅ Answer: C) Intermediate mesoderm

The indifferent gonad can develop into either:

A) Ovaries or uterus

B) Testes or ovaries

C) Testes or prostate

D) Uterus or cervix

✅ Answer: B) Testes or ovaries

Which of the following is required for testicular descent?

A) FSH

B) Gubernaculum

C) Müllerian duct

D) DHT

✅ Answer: B) Gubernaculum

Which anatomical structure of the breast is responsible for the support of the breast in bands and prevents its sagging?

A. Axillary tail of Spence.

B. Cooper' s ligament.

C. Lactiferous ducts.

D. Mammary glands.

E. Montgomery glands

B

Which part of the breast can be found in contact with the axillary vessels?

A. Axillary tail of Spence.

B. Cooper' s ligament.

C. Lactiferous ducts.

D. Mammary glands.

E. Montgomery glands

A

Polymastia is a breast abnormality with multiplicity of the ……

A. Nipples.

B. Areolas.

C. Breasts.

D. Axillary tails of Spence.

E. Cooper' s ligaments.

C

Which part of the breast contains the largest amount of glandular tissue?

A. Nipples.

B. Areolas.

C. Breasts.

D. Axillary tails of Spence.

E. Cooper’ s ligaments.

D

5. Montgomery Glands are presents in which part of the breast?

A. Nipples.

B. Areolas.

C. Breasts.

D. Axillary tails of Spence.

E. Cooper’ s ligaments.

B

6. the nipple of the breast in male and young female lies opposite

A.3rd costal cartilage

B. 3rd intercostal space

C.4th intercostal space

D.4th costal cartilage

5. 5th costal cartilage

C

7. Which of these organs is related directly to the sacrum?

A. Urinary bladder.

B. Rectum.

C. Anal canal.

D. Male urethra.

E. Female urethra.

B

8. The part of the pelvis diaphragm which helps evacuation of the rectum is the …….

A. Pubourethralis.

B. Puborectalis.

C. Levator prostate.

D. Coccygeus.

E. Perineal body.

B

9. Pelvic diaphragm are

A. Levator ani+ obturator internus

B. Coccygeus+ obturator internus

C. Levator ani + coccygeus

D. Pyriformis + obturator internus

C

10. The perineum is divided into areas (triangles) by……

A. the coccygeus

B. the levator ani

C. the external urethral sphincter

D. the internal urethral sphincter

E. the line extends between the 2 ischial tuberosities.

E

11. The perineal membrane is related superiorly to the …… ……

A. superficial perineal pouch.

B. deep perineal pouch.

C. pudendal canal.

D. pelvic peritoneum.

E. pelvis fascia.

B

12. All these structures are contents of the ischiorectal fossa EXCEPT the……

A. pad of fat.

B. inferior rectal vessels and nerves.

C. pudendal nerve.

D. internal pudendal vessels.

E. dorsal nerve of the penis.

E

13. A 45-year-old man is admitted to the emergency department after a violent car crash. Physical examination reveals that the patient suffers from a "straddle" injury to the perineum. An MRI examination reveals that extravasating urine and blood from a torn bulbar urethra are present in the superficial perineal pouch. Which of the following fasciae provide boundaries for this space?

A. Perineal membrane and the superior fascia of the urogenital diaphragm.

B. Colles' fascia and perineal membrane.

C. Perineal membrane and external perineal fascia.

D. Camper's fascia and Scarpa's fascia.

E. The urogenital diaphragm and the apex of the prostate gland.

B

14. The perineum is pounded posteriorly by the:

A. Symphysis pubis

B. Coccyx

C. Ischiopubic rami

D. Ischial tuberosity

E. Sacrotuberous ligament

B

15. The perineal membrane is related inferiorly to:

A. Superficial perineal pouch.

B. Pudendal canal.

C. Pelvis fascia.

D. Pelvic peritoneum.

E. Deep perineal pouch

A

16. A sharp injury posterior to the perineal body would mostly affects:

A. Transverse perineal muscles

B. Levator ani muscles.

C. Ischicavernosus muscles.

D. External anal sphincter (superficial and deep parts).

E. Bulbospongiosus muscles

D

17. Fecal incontinence after surgical procedures on the perinium involving the perineal body is mostly caused by injury to:

A. Transverse perineal muscles

B. Levator ani muscles.

C. Ischicavernosus muscles.

D. External anal sphincter (superficial and deep parts).

E. Bulbospongiosus muscles.

D

18. The external urethral sphincter is a content of:

A. Superficial perineal pouch.

B. Pudendal canal.

C. Pelvis fascia.

D. Pelvic peritoneum.

E. Deep perineal pouch

E

19. The posterior scrotal nerve and vessels are contents of :

A. Superficial perineal pouch.

B. Pudendal canal.

C. Pelvis fascia.

D. Pelvic peritoneum.

E. Deep perineal pouch.

A

20. Surgical injury to the deep perineal pouch is most likely affects:

A. External urethral sphincter

B. Greater vestibular glands

C. Ischiocavernosus muscle.

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D. Root of clitoris

E. Superficial transverse perineal muscle.

A

20. The root of penis is a content of:

A. Superficial perineal pouch.

B. Pudendal canal.

C. Pelvis fascia.

D. Pelvic peritoneum.

E. Deep perineal pouch.

A

21. Surgical injury to the superficial perineal pouch is most likely affects all these structures EXCEPT:

A. External urethral sphincter

B. Greater vestibular glands

C. Ischiocavernosus muscle.

D. Root of clitoris

E. Superficial transverse perineal muscle.

A

22. All these structures bound the ischiorectal fossa EXCEPT:

A. External anal sphincter.

B. levator ani muscle.

C. Obturator internus and obturator fascia.

D. Sacrospinatus muscle

D

23. Cool's fascia form the floor of?

A. Deep perineal pouch.

B. Pelvic peritoneum.

C. Pelvis fascia.

D. Pudendal canal.

E. Superficial perineal pouch.

E

24.The pouch formed by reflection of peritoneum from the urinary bladder onto the rectum in males is the …….. pouch.

A. Pararectal

B. Rectovaginal

C. Rectovesical

D. Paravesical

E. Douglas

C

25. The pudendal nerve is related in its course to all these anatomical landmarks EXCEPT the …

A. Pudendal canal.

B. Deep perineal pouch.

C. Superficial perineal pouch.

D. Ischiorectal fossa.

E. Sacrospinous ligament.

C

26. Anesthesia of the labia majora is an intended outcome of nerve block of which of these nerves?

A. Middle rectal.

B. Inferior rectal.

C. Pudendal.

D. Obturator.

E. Superior gluteal.

C

27. The lower part of the rectum drains its lymph into which of these lymph nodes group?

A. Paraaortic.

B. Inguinal.

C. superior mesenteric.

D. Inferior mesenteric.

E. Mediastinal.

B

28. The anal columns (of Morgagni) are characteristic of the interior of

which of these

pelvic viscera?

A. Rectum.

B. Lower anal canal.

C. Upper anal canal.

D. Male urethra.

E. Female urethra.

C

29. The only part of the urinary bladder covered with peritoneum is which of these?

A. Inferoposterior surface.

B. Inferolateral surface

C. Superior surface.

D. Apex.

E. Neck

C

The posterior wall of vagina related posteriorly to the ……..

A. Uterus.

B. Rectum.

C. Sacrum.

D. Urinary bladder.

E. Symphysis pubis.

B

The ovary drains its lymph into which of these lymph nodes groups?

A. Internal iliac.

B. External iliac.

C. Superficial inguinal.

D. Para-aortic.

E. Common iliac.

D

The posterior fornix is the deepest part of which of the following structures?

A. Urinary bladder.

B. Vagina.

C. Deep perineal space.

D. Urethra.

E. Uterus.

B

The Bulbo-urethral gland duct opens into the ……

A. vas deference.

B. prostatic urethra.

C. membranous urethra.

D. penile urethra.

E. ureter.

D

The scrotum drains its lymph in the …… lymph nodes.

A. internal iliac

B. external iliac

C. para-aortic

D. common iliac

E. superficial inguinal

E

The left testicular vein drain into the……

A. left suprarenal vein

B. left renal vein

C. inferior vena cava

D. left inferior phrenic vein

E. left common iliac vein

B

The primary components of the male reproductive system develop from which structure?

A. The paramesonephric duct.

B. The anorectal canal.

C. The mesonephros.

D. The metanephros.

E. The metanephric cap.

C

The vaginal fornices are derived from which of the following structures?

A. Paramesonephric duct.

B. Mesonephric ducts.

C. Ectodermal duct.

D. Sinovaginal bulbs.

E. Urogenital sinus.

A

The only parts remaining from the mesonephric system in the female include which of the following structures?

A. Fimbriae.

B. Uterine tubes.

C. Epoophoron.

D. Uterus.

E. Cervix.

C

What is the origin of germ cells that induce the development of the testis or the ovary?

a) Yolk Sac endoderm

b) Yolk sac mesoderm

c) Celomic epithelium

d) Mesoderm

A

Polythelia is a breast abnormality with multiplicity of the ……

A. Nipples.

B. Areolas.

C. Breasts.

D. Axillary tails of Spence.

E. Cooper' s ligaments.

A

Which of the following best defines the perineum?

A. The region between the kidneys

B. The area between the pubic symphysis and the coccyx

C. The area around the navel

D. The area covering the lungs

Answer: B

The perineum is divided into how many triangles?

A. One

B. Two

C. Three

D. Four

Answer: B

Which two triangles make up the perineum?

A. Urogenital and anal triangles

B. Pelvic and abdominal triangles

C. Genital and rectal triangles

D. Dorsal and ventral triangles

Answer: A

The central tendon of the perineum is also known as the:

A. Perineal line

B. Perineal body

C. Ischial spine

D. Pudendal center

Answer: B

Which muscle is located in the superficial perineal pouch?

A. Puborectalis

B. Ischiocavernosus

C. Coccygeus

D. Piriformis

Answer: B

The pudendal nerve arises from which spinal segments?

A. L1–L2

B. S2–S4

C. L4–S1

D. T12–L2

Answer: B

Which artery primarily supplies the perineum?

A. Femoral artery

B. Internal pudendal artery

C. External iliac artery

D. Inferior epigastric artery

Answer: B

The deep perineal pouch contains all of the following EXCEPT:

A. Deep transverse perineal muscle

B. Bulbourethral glands (in males)

C. Ischiocavernosus muscle

D. Membranous part of the urethra

Answer: C

Which of the following is part of the urogenital diaphragm?

A. Coccygeus

B. External urethral sphincter

C. Gluteus maximus

D. Obturator internus

Answer: B

What is the function of the external anal sphincter?

A. Opens the anal canal

B. Closes the urethra

C. Voluntary control of defecation

D. Supports pelvic organs

Answer: C

In females, the perineal body is located between the:

A. Urethral orifice and vaginal orifice

B. Vaginal orifice and anus

C. Clitoris and anus

D. Urethra and anus

Answer: B

The perineal body serves as an attachment point for which muscle?

A. Sartorius

B. Levator ani

C. Obturator internus

D. Psoas major

Answer: B

Which nerve provides motor innervation to the perineal muscles?

A. Obturator nerve

B. Pudendal nerve

C. Genitofemoral nerve

D. Femoral nerve

Answer: B

Which of the following structures passes through the urogenital diaphragm in males?

A. Prostatic urethra

B. Membranous urethra

C. Spongy urethra

D. Ureter

Answer: B

Episiotomy is an incision made in the:

A. Labia minora

B. Perineal body

C. Clitoris

D. Anus

Answer: B

Which muscle helps in maintaining erection in males?

A. External urethral sphincter

B. Bulbospongiosus

C. Transverse perineal

D. Levator ani

Answer: B

Which structure forms the posterior boundary of the perineum?

A. Pubic symphysis

B. Ischial spine

C. Coccyx

D. Sacral promontory

Answer: C

In males, the perineum contains the root of the:

A. Penis

B. Urethra

C. Testis

D. Epididymis

Answer: A

The ischiorectal (ischioanal) fossa is filled with:

A. Muscle tissue

B. Adipose tissue

C. Cartilage

D. Fluid

Answer: B

Which of the following passes through the anal triangle?

A. Vaginal canal

B. Urethra

C. Anal canal

D. Rectus abdominis

Answer: C

Which gland is found in the deep perineal pouch in males?

A. Bartholin's gland

B. Bulbourethral gland

C. Prostate gland

D. Cowper's gland

Answer: B

Which layer of fascia covers the superficial perineal muscles?

A. Deep fascia (Colles fascia)

B. Scarpa’s fascia

C. Camper's fascia

D. Fascia lata

Answer: A

The superficial perineal pouch in females contains the:

A. Ovaries

B. Bulbs of the vestibule

C. Cervix

D. Ureters

Answer: B

Which of the following muscles is located in the anal triangle?

A. Ischiocavernosus

B. Bulbospongiosus

C. External anal sphincter

D. Transverse perineal muscle

Answer: C

Damage to the pudendal nerve may result in:

A. Urinary incontinence

B. Foot drop

C. Bell's palsy

D. Ptosis

Answer: A

Perineal membrane separates the:

A. Superficial and deep perineal pouches

B. Anal canal and rectum

C. Urethra and bladder

D. Ischiorectal fossa and pelvis

Answer: A

Bartholin's glands open into the:

A. Urethra

B. Anal canal

C. Vestibule of the vagina

D. Cervix

Answer: C

Which structure provides support to the pelvic organs and lies deep to the perineum?

A. Diaphragm

B. Pelvic floor muscles

C. Inguinal ligament

D. Rectus sheath

Answer: B

written

1. Mention components of the breast:

a) The mammary gland.

b) The superficial fascia in which the gland is embedded.

c) The overlying skin.

2. Mention lymphatics of breast:

a) Lymphatics of the skin:

✓ From the lateral part of the breast: Pass to the pectoral group of lymph nodes.

✓ From the medial part: Pass to the parasternal lymph nodes of same side and opposite side.

✓ From the nipple and areola: Pass to the subareolar lymphatic plexus.

b) Lymphatics of the mammary gland:

✓ The superficial lymphatic plexus: Lies beneath the areola. Receive lymph from nipple, areola and the central part of the gland.

✓ The deep lymphatic plexus: Lies n the fascia covering the pectoralis major. Receive lymph from other parts of the breast

c) Regional drainage:

✓ Lateral and central parts: Drains into pectoral and apical group of lymph nodes in the axilla.

✓ Upper part: Drains into the apical group of lymph nodes in the axilla.

✓ Medial part: Drains into parasternal and posterior intercostal lymph nodes.

✓ Lower part: Piercing the abdominal wall to the: Rectus sheath subdiaphragmatic and subperitoneal lymph nodes.

3.Which structures pierce pelvic diaphragm

In male:

1. Prostate and the fibers surrounding it are known as levator prostate.
2. Rectum and the fibers surrounding it are known as puborectalis.

In female:

1. Urethra: and the fibers surrounding it are known as pubourethralis.
2. Vagina: and the surrounding fibers known as pubovaginalis.
3. Rectum: and the fibers surround it is called puborectalis.

4.Which Structures piercing the perineal membrane:

In male & In female

1. Urethra
2. Artery of bulb of penis (clitoris)
3. Internal pudendal artery termination
4. Dorsal nerve of penis (clitoris)

1. Urethra(male)
2. Artery of bulb of penis in male (clitoris in female)
3. Internal pudendal artery termination
4. Dorsal nerve of penis in male (clitoris in female)
5. Bulbo-urethral ducts in male
5. Vagina in female

5.What is the function of perineal body:

Important support to pelvic organs especially in females.

Its damage during labor may result in prolapse of uterus & other pelvic organs

6.What is the contents of ischiorectal fossa

1. Pad of fat.
2. Inferior rectal vessels and nerves.
3. Pudendal canal containing:
    a) Pudendal nerve.
    b) Internal pudendal vessels.

7.Which pouches exist in male :

a) Rectovesical

b) Pararectal

c) Paravesical

8.Mention branches of pudendal nerve:

1. Inferior rectal nerve
2. Perineal nerve
3. Dorsal nerve of penis

9.Mention the blood supply of the rectum:

✓ Superior rectal: from the inferior mesenteric artery.

✓ Middle rectal: from the internal iliac artery.

✓ Inferior rectal: from internal pudendal.

10.Widest part of male urethra → prostatic

11.Longest part of male urethra → penile

12.Mention components of duct system in male

- Epididymis
- Vas deferens
- Ejaculatory duct
- Penile urethra

13.Name capsules of the testis

A. Tunica vasculosa.

B. Tunica albuginea.

C. Tunica vaginalis.

14.Name coats of the testis

A. Internal spermatic fascia.

B. Cremasteric muscle and fascia.

C. External spermatic fascia.

15.Mention coverings of the testis (From outside inwards): :

1. Skin of the scrotum.

2. Dartos muscle.

3. Colle's fascia.

4. External spermatic fascia.

5. Cremasteric muscle & fascia.

6. Internal spermatic fascia.

7. Tunica vaginalis: 2 layers (parietal & visceral layers).

8. Tunica albuginea (fibrous capsule).

9. Tunica vasculosa.

16.Lateral end of fallopian tubes named → tubal end

17.Medial surface of fallopian tubes → related to fimbriated end of Fallopian tube

18.Mention ligaments of ovary

A. Peritoneal ligaments:

1. Suspensory ligament
2. Mesovarium

B. Non-peritoneal ligaments: Ovarian ligament

19.Enumerate parts of the broad ligament

1. Mesosalpinx
2. Suspensory ligament of ovary
3. Mesometrium

20.Enumerate contents of the broad Ligament:

1. 2 Uterine tubes.
2. 2 Ureters.
3. 2 Ligaments: ovarian, round
4. 2 Arteries: uterine, ovarian
5. 2 Embryological remnants: Epoophoron & Paroophoron
6. Sympathetic nerve plexus.

21.Mention Ligaments of the uterus:

Peritoneal ligaments:

1. Broad ligament:
2. Anterior ligament: (uterovesical).
3. Posterior ligament: (rectovaginal).

Non peritoneal (fibromuscular) ligaments:

1. Round ligament of the uterus.
2. Ovarian ligament.

3. Mackenrodt's ligaments (transverse ligament of the cervix). It is the main support of the uterus.

4. Uterosacral ligaments.

22.The main inducer of the development of testis or ovary →

Primitive germ cells

23.Mention main factors help in descent of the testis:

1. Gubernaculum ligaments.

2. Processus vaginalis.

3. Male sex hormone (testosterone) and gonadotrophin.

24.Mention Fate of the mesonephric tubules and duct in female:

- Epoophoron and Paroophoron
- The mesonephric tubules forms the ureteric bud and part of the urinary bladder and urethra.
- Gartner's duct

25.Enumerate anomalies of ex genitalia

1. True hermaphroditism

2. Female pseudohermaphroditism

3. Male pseudohermaphroditism

4. Androgen insensitivity syndrome

5. Agenesis of external genitalia

6. Micropenis: abnormal small penis.