

Physiology

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- *The anterior pituitary gland is connected to the hypothalamus by:*
- *A. hypothalamoanterior connective tissue*
- *B. skeletal muscle*
- *C. pituitary fat tissue*
- *D. hypothalamoanterior nerves*
- *E. hypothalamoanterior pituitary portal vessels*

- *Answer: E*

- *Which hormone isn't released from anterior Pituitary gland:*
- *A. FSH*
- *B. LH*
- *C. Dopamine*
- *D. Prolactin*
- *E. ACTH*

- *Answer: C*

- *Which of the following isn't considered a physiologic factor of Aldosterone secretion:*
- *A. Angiotensin I*
- *B. Angiotensin III*
- *C. Angiotensin II*
- *D. Elevated potassium concentration*
- *E. ACTH*

- *Answer: A*

- *Which of the following is INCORRECT concerning PTH, calcitonin, and vitamin D:*
- *A. Both calcitonin & PTH are produced in the follicle cells of the thyroid gland*
- *B. Parathyroid hormone is essential for life*
- *C. PTH is the most important hormone in the control of calcium metabolism.*
- *D. Vitamin D deficiency is the cause of rickets*
- *E. Vitamin D is actually a hormone that increases calcium absorption in the intestine*
- *Answer: A*

- *All of the following are related to glucose regulation, EXCEPT:*
- *A. glucagon*
- *B. insulin*
- *C. T4*
- *D. GH*
- *E. Estrogen*

- *Answer: E*

- *Insulin increases glucose uptake in all of these following tissues ,EXCEPT:*
- *A. cardiac muscle*
- *B. smooth muscles*
- *C. leukocytes*
- *D. erythrocytes*
- *E. islets of Langerhans*

- *Answer: D*

- *Which of the following regarding vitamin D is INCORRECT:*
- *A. Vitamin D2 & D3 are prohormones*
- *B. Both undergo identical processing*
- *C. Both are needed for health*
- *D. D2 & D3 have almost the same efficiency*
- *E. 24,25-OH₂ D is used to dispose of excess vitamin D*

- *Answer: D*

- *Which one of the following about amylin and insulin hormones is not true:*
- *A. They are co-packaged in the same granules*
- *B. Consequently, amylin is normally co-secreted with insulin*
- *C. Plasma concentrations of the two hormones display a similar diurnal pattern of low fasting levels and high levels in response to meals*
- *D. Amylin hormone complements the actions of insulin in post prandial glucose homeostasis via several mechanisms*
- *E. Patients with type 1 diabetes have deficiency of insulin with normal level of amylin*
- *Answer: E*

- *About Calcium serum regulation, what is the wrong statement:*
- *A. its concentration is highly regulated and should be within the range of 9-11mg/dL*
- *B. Calcium blood levels are regulated by PTH and hormone D only*
- *C. Bone is the main reservoir for Calcium*
- *D. Heart stop and breathe cease when there is a slight difference*
- *E. Significant differences from the normal level of calcium in the blood can be fatal*

- *Answer: B*

- *The chemical nature of vitamin D is:*
- *A. Tyrosine derivative*
- *B. Tripeptide*
- *C. Steroid*
- *D. Peptide*
- *E. Protein*

- *Answer: C*

- *Which one of the following hormones is the most important hyperglycemic hormone:*
- *A. growth hormone*
- *B. insulin*
- *C. epinephrine*
- *D. cortisol*
- *E. glucagon*

- *Answer: E*

- *Which of the following hormones DOES NOT USE CAMP as a second messenger:*
- *A. PTH*
- *B. calcitonin*
- *C. oxytocin*
- *D. glucagon*
- *E. TSH*
- *Answer: C (**important**)*

- *Which of the following hormones need calcium for its secretion:*
- *A. GH*
- *B. T4*
- *C. cortisol*
- *D. insulin*
- *E. somatomedren*

- *Answer: D*

- *Which hormone is required for normal function for the growth hormone:*
- *A. Insulin*
- *B. Somatomedin*
- *C. T3*
- *D. T4*
- *E. RT3*
- *Answer: A*

- *Which of the following are not gonadotropins:*
- *A. Follicle-stimulating hormone (FSH)*
- *B. Human chorionic gonadotropin (hCG)*
- *C. Growth hormone*
- *D. Luteinizing hormone (LH)*
- *E. TSH*

- *Answer: E*

- *This is the largest hormone in Size:*
- *A. Angiotensin I*
- *B. Thyroxine*
- *C. Dihydrotestosterone*
- *D. Glucagon*
- *E. Vasopressin*

- *Answer: D*

- Regarding *parathyroid glands*, which is TRUE:
- A. PTH is secreted in response to high glucose
- B. PTH is secreted in response of high T4
- C. PTH is secreted from the thyroid glands in response to a low plasma concentration of ionized (free) calcium
- D. PTH is secreted from the parathyroid glands in response to a high plasma concentration of ionized (free) calcium
- E. PTH increases rates of dietary calcium absorption

- Answer: E

- Regarding *Lacotrophs*, which is true:
- A. they are the Site of production of T4
- B. they are the Site of production of TH
- C. they are the Site of production of prolactin
- D. they are the Site of production of growth hormone
- E. they are the Site of production of T3

- Answer: C

- *The following hormones have permissive effects:*
- *A. Testosterone and estrogen*
- *B. Oxytocin and vasopressin*
- *C. Insulin and glucagon*
- *D. Epinephrine and serotonin*
- *E. Thyroxine and epinephrine*

- *Answer: E*

- *Regarding the steps involved in Synthesis of thyroid hormones which is false:*
- *A. T4 and T3 are released into the circulation*
- *B. Newly formed Ig is transported to the cell surface in small apical vesicles*
- *C. T4 and T3 are released into the Golgi bodies*
- *D. Iodide is taken up at the basolateral cell membrane*
- *E. Polypeptide chains of Tg (thyroglobulin) are synthesized in the rough endoplasmic reticulum*
- *Answer: C*

- Regarding *Thyrotrophs*, which is true:
 - A. they are the Site of TH synthesis
 - B. they are the Site of growth hormone synthesis
 - C. they are the Site of T3 synthesis
 - D. they are the Site of TSH synthesis
 - E. they are the Site of prolactin synthesis
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- Answer: D

- Regarding *thyroid gland*, which is FALSE:
- A. The thyroid gland secretes growth hormone
- B. The thyroid gland secretes thyroxine
- C. Every tissue in the body is affected in some way by thyroid hormones
- D. The thyroid gland secretes t Calcitonin
- E. The thyroid gland secretes triiodothyronine
- Answer: A

- *Which one of the following is not part of the portal system:*
- *A. The primary capillary plexus*
- *B. hypophyseal portal veins*
- *C. Superior hypophyseal arteries*
- *D. hypothalamohypophyseal tracts*
- *E. The secondary capillary plexus*

- *Answer: C*

- Regarding **VITAMIN D3**, which is false:
- A. Vitamin D3 inhibits intestinal calcium absorption
- B. Vitamin D3 plays an important role in maintaining calcium homeostasis
- C. Vitamin D3 Enhances intestinal calcium absorption
- D. Vitamin D3 enhances calcium reabsorption in the kidney
- E. Vitamin D3 active metabolite is named 1,25-(OH)₂D₃
- Answer: A

- *Which of the following sentences is true:*
- *A. Insufficiency of thyroid hormones result in Primary hyperthyroidism*
- *B. Cretinism is a condition of stunted mental growth due to untreated congenital deficiency of thyroid hormones*
- *C. Myxedema is a term used with severe hyperthyroidism*
- *D. Thionamides are the primary drugs used to increase thyroid hormone production*
- *E. Cretinism is a condition of stunted mental growth due to untreated congenital increase of thyroid hormones*
- *Answer: B (maybe not required)*

- *Insulin increases the entry of glucose into:*
- *A. The mucosa of the small intestine*
- *B. All tissues*
- *C. Most neurons in the cerebral cortex.*
- *D. Renal tubular cells*
- *E. Skeletal muscle*

- *Answer: E*

- *Which one of the following cell types of the anterior pituitary gland has the **second largest percentage** of the total population of cells:*
- *A. Gonadotropes*
- *B. Somatotropes*
- *C. Lactotropes*
- *D. Corticotropes*
- *E. Thyrotropes*

- *Answer: D*

- *Which one of the following is the indirect function of the growth hormone:*
- *A. Stimulation of cortisol secretions*
- *B. Increased parathyroid glands function*
- *C. Increased blood glucose level*
- *D. Gluconeogenesis*
- *E. Lipolysis*
- *Answer: B*

- *Which one of the following about thyroid hormones is NOT true:*
- *A. Are attached to the thyroglobulin in the colloid*
- *B. The storage in the gland is sufficient for the human being for more than two months*
- *C. Just T3 enters the nucleus*
- *D. Bound by plasma protein at different percentage*
- *E. Are not released from the thyroid gland immediately after synthesis*
- *Answer: C*

- *Which one of the following inhibits ADH secretion:*
- *A. Hypoglycemia*
- *B. Pain*
- *C. Opiates*
- *D. Alcohol (Ethanol)*
- *E. Nicotin*

- *Answer: D*

Best of Luck < 3