

# Endocrine system

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# **Anatomy**

**Which one of the following is not part of the portal system?**

- A) The secondary capillary plexus
- B) hypothalamohypophyseal tracts
- C) hypophyseal portal veins
- D) Superior hypophyseal arteries
- E) The primary capillary plexus

**Answer: B**

**The arterial supply of the thyroid arises from which of the following vessels?**

- A) The aorta
- B) The external carotid arteries
- C) The thyrocervical trunk
- D) All of the above

**Answer: D**

**The blood supply of the pituitary gland, choose correct statement:**

- A) The inferior hypophyseal vessels arise from the internal carotid arteries and they primarily supply the pars distalis.
- B) The hypothalamohypophyseal portal system provides the crucial link between the hypothalamus and the posterior lob of the pituitary gland.
- C) The superior hypophyseal arteries give rise to fenestrated capillaries (the primary capillary plexus) which drains into hypophyseal portal veins.
- D) Most of the blood from the pituitary gland drains into the transverse sinus.
- E) The superior hypophyseal arteries arise from the internal carotid arteries and supply pars distalis.

**Answer: C**

**The posterior lobe of the pituitary gland is derived from:**

- A) Neural crest.
- B) Rathke's pouch.
- C) Neuroectoderm of the floor of the third ventricle.
- D) First pharyngeal pouch.
- E) First pharyngeal arch.

Answer: C

**One of the followings is NOT TRUE about the endocrine system:**

- A) A single endocrine gland may produce more than one hormone
- B) A single hormone may be secreted by more than one endocrine gland
- C) A single hormone has always one specific target cell
- D) Same chemical substance may be either a hormone or neurotransmitter
- E) Some organs of the endocrine system perform non endocrine function

Answer: C

**What congenital anomaly arises from the formation of the thyroid gland?**

- A) The thyroid isthmus
- B) The cricothyroid arch
- C) A thyroglossal duct cyst
- D) An endobronchial cyst

Answer: C

**Which one of the following about thyroid hormones is NOT true?**

- A) Are not released from the thyroid gland immediately after synthesis
- 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 attached to the thyroglobulin in the colloid

**Answer: C**

**Which one of the following hormones is hypoglycemic**

- A) Growth Hormone
- B) Glucagon
- C) Epinephrine
- D) Insulin
- E) Cortisol

**Answer: D**

**A patient with primary hyperparathyroidism undergoes neck exploration where four small, normal appearing glands are found. What are the possible locations of an additional, supernumerary gland?**

- A) In the thyroid gland
- B) In the thymus
- C) In the tracheoesophageal groove
- D) All of the above

**Answer: D**

**Which one of the following hormones is the most important hyperglycemic Hormone?**

- A) growth hormone.
- B) epinephrine.
- C) glucagon.
- D) insulin.
- E) cortisol.

**Answer: C**

**Which of the following is a neurohormone ?**

- A) Vasopressin(ADH)
- B) Thyroid
- C) Growth hormone
- D) Cortisol
- E) Luteinizing Hormone

**Answer: A**

**What are the types of cells found in parathyroid gland?**

- A) Alpha and beta cells
- B) Chiefcells and oxyphil
- C) Parafollicular and follicle cells
- D) Pituicytes and basophil cells

**Answer: B**

**Wrong about pituitary:**

- A) Hypothalamohypophyseal tract injury lead to ADH deficiency
- B) Posterior pituitary contain neurosecretory granules
- C) Anterior lobe give bright spot
- D) The gland is inferior to the optic chiasm

**Answer: C**

**Which of the following is NOT a hypothalamic function?**

- A) Control Of Anterior Pituitary Hormone Secretion.
- B) Control of sleep and wakefulness.
- C) Regulation Of Body Water And Urine Osmolality.
- D) Regulation of core body temperature.
- E) Regulation Of Feeding

**Answer: B**

**MSH is produced by:**

- A) Anterior lobe of the pituitary gland
- B) Posterior pituitary gland
- C) Parathyroid
- D) Pars intermedia of pituitary gland

**Answer: D**

**Why are parathyroid hormone and calcitonin considered to be antagonists of one another?**

- A) When parathyroid hormone puts calcium back in the blood, calcitonin works alongside it to accomplish the task.
- B) When parathyroid hormone puts calcium in the blood, calcitonin clears calcium out of the blood.
- C) Calcitonin always dictates how parathyroid hormone will behave.
- D) Parathyroid hormone and calcitonin do not have any effect on each other.

**Answer: B**

**The supraoptic and paraventricular nuclei of the hypothalamus control the secretion of which of the following hormones to the posterior pituitary?**

- A) Oxytocin and prolactin.
- B) Growth hormone and prolactin.
- C) Follicle stimulating hormone and luteinizing hormone.
- D) Antidiuretic hormone and oxytocin.
- E) Adreno Cortico Trophic Hormone And Oxytocin.

**Answer: D**

**thyroid gland: which is incorrect:**

- A) the pyramidal represents the inferior part of thyroglossal duct
- B) Most of its blood supply is derived from the superior thyroid art

**Answer: B**

**Which of the following is NOT a hormone produced by the pituitary Gland?**

- A) Growth hormone
- B) Prolactin
- C) Estrogen
- D) Thyroid stimulating hormone

**Answer: C**

**Which one of the following pairs is mismatched:**

- A) Neuroendocrine – Anterior Pituitary
- B) severe headache – pituitary apoplexy

**Answer: A**



**Which one of the following inhibit growth hormone secretion?**

- A) Ghrelin
- B) Androgens
- C) Stress
- D) Somatomedins
- E) Exercise

**Answer: D**

**Calcitonin has which of the characteristics?**

- A) It stimulates the action of osteoclasts.
- B) Its absence or its excess can be fatal.
- C) The blood iron level directly controls the secretion of calcitonin.
- D) It helps maintain the homeostasis of calcium & phosphate in the blood.
- E) It is produced by the parathyroid glands.

**Answer: D**

**Which one of the following is secreted by acidophilic cells of the pituitary Gland?**

- A) Growth hormone
- B) LH
- C) ACTH
- D) TSH
- E) FSH

**Answer: A**

**Which part of the brain controls thirst and urine output, food intake, and body temperature among other things?**

- A) Basal nuclei.
- B) Brain stem.
- C) Cerebral cortex.
- D) Hypothalamus.
- E) Thalamus.

**Answer: D**

**How does the body restore itself to normal when calcium levels are too low?**

- A) PTH will stimulate osteoclasts to store calcium in bone
- b) PTH will stimulate osteoblasts to break down bone, and calcium will enter the blood to restore the level to normal
- C) PTH will stimulate osteoblasts to store calcium in bone
- d) PTH will stimulate osteoclasts to break down bone, and calcium will enter the blood to restore the level to normal

**Answer: D**

**Adrenal cortical hormones essential for sodium and potassium regulation is?**

- A) Progesterone.
- B) Epinephrine and norepinephrine.
- C) Cortisol
- D) Androgens.
- E) Aldosterone.

**Answer: E**

**Which of the following is an accumulation and releasing centre of Neurohormone?**

- A) Anterior pituitary gland
- B) Posterior pituitary gland
- C) Hypothalamus

**Answer: B**

**Development of thyroid gland, choose the wrong statement:**

- A) The Lingual thyroid is the most common form of incomplete descent.
- B) The ultimobranchial bodies form the follicular cells.
- C) It descends in front of the pharyngeal gut and remains connected to the tongue by the thyroglossal duct.
- D) By the seventh week, it reaches its final position
- E) It is an endodermal thickening in the floor of the pharynx between the tuberculum impar and the copula.

**Answer: B**

**Iodine is necessary for the formation of**

- A) ACTH.
- B) Calcitonin.
- C) Cortisol.
- D) Insulin.
- E) Thyroid Hormone.

**Answer: E**

**Upper Limitation of thyroid gland:**

- A) Pretracheal fascia
- B) The superior belly of the omohyoid
- C) The capsule of thyroid

**Answer: A**

**Hyperthyroidism can be due to all of the following EXCEPT**

- A) Lack of iodine.
- B) Thyroid-stimulating immunoglobulin.
- C) TOO much T<sub>4</sub> or T<sub>3</sub>.
- D) TOO much TRH.
- E) TOO much TSH.

**Answer: A**

**The hypothalamic-pituitary portal system is important in the regulation of all of the following hormones EXCEPT for**

- A) GH.
- B) ACTH.
- C) Vasopressin.
- D) Prolactin.
- E) TSH.

**Answer: C**

**FSH is produced by:**

- A) Thyroid gland
- B) Anterior pituitary gland
- C) Gonads

**Answer: B**

**The thyroid gland will move upward when the patient is asked to swallow because:**

- A) The thyroid gland and tongue are attached to each other by the thyroglossal duct.
- B) The thyroid gland and the larynx are covered by the pretracheal fascia.
- C) The thyroid gland and the larynx are covered by the prevertebral fascia.
- D) The thyroid gland and the larynx are covered by the carotid sheath.
- E) The thyroid gland and the larynx are covered by the superficial fascia of the neck.

**Answer: B**

**Wrong about thyroid drainage**

- A) All drain into internal jugular vein
- B) Superior thyroid vein drains into the internal jugular vein
- C) The inferior thyroid veins of the two sides anastomose with one another as they descend in front of the trachea.

**Answer: A**

**The main hormone secreted by the Thyroid gland**

- A) T4
- B) T3
- C) (a) and (b) Both
- D) TSH

**Answer: C**

**Which one of the following about anti-diuretic hormone (ADH) is NOT true:**

- A) It Is Synthesized In Neurons.
- B) It is carried to the pituitary gland via capillaries.
- C) Its Release Into The Blood Is From The Posterior Pituitary.
- D) Lack of ADH causes diabetes insipidus.
- E) ADH acts on the kidney tubules.

**Answer: B**

**Which of the following statements concerning parathyroid hormone's (PTH) actions is INCORRECT?**

- A) An elevated plasma calcium acts directly on the parathyroid gland to stimulate PTH secretion.
- B) PTH helps the kidneys excrete excess phosphate from the body.
- C) PTH promotes localized dissolution of bone by stimulating osteoclasts.
- D) PTH promotes the rapid movement of Ca from the bone fluid into the plasma.
- E) PTH stimulates the reabsorption of Ca from the kidney.

**Answer: A**

**The superior thyroid artery is initially associated with the\_\_\_\_\_ and must be ligated \_\_\_\_ during thyroidectomy:**

- A) External Laryngeal Nerve, away the gland
- B) Internal Laryngeal Nerve, away from the gland
- C) External Laryngeal Nerve, near from the gland
- D) Recurrent Laryngeal Nerve, near the gland
- E) Recurrent Laryngeal Nerve, away from the gland

**Answer: C**

**The hypothalamus inhibits the release of**

- A) ACTH.
- B) FSH.
- C) GH.
- D) Prolactin.
- E) TSH

**Answer: D**

**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) Vitamin D is actually a hormone that increases calcium absorption in the intestine.
- C) Vitamin D deficiency is the cause of rickets.
- D) PTH is the most important hormone in the control of calcium metabolism.
- E) Parathyroid hormone is essential for life.

**Answer: A**

**Although the adrenal cortex secretes at least \_\_\_\_ different hormones, about 95% of the mineralocorticoid activity is due to \_\_\_\_.**

- A) 3/Aldosterone.
- B) 2/Cortisol.
- C) 4/Gonadocorticoids.
- D) 5/Epinephrine.
- E) 7/Norepinephrine

**Answer: A**

**Wrong about pituitary gland blood supply?**

- A) The venous drainage of posterior pituitary lobe is into cavernous sinus
- B) Lymphatic drainage of thyroid gland is into superior and posterior deep cervical nodes
- C) Primary plexus drain into cavernous

Answer: C

**A 4-year-old girl is admitted to the hospital because of a soft anterior midline Cervical mass. When she is asked to protrude her tongue, the mass in the neck is Observed to move upward. Which of the following is the most likely diagnosis?**

- A) Defect in the sixth pharyngeal arch.
- B) Defect in first pharyngeal arch.
- C) A thyroglossal duct cyst.
- D) A branchial cyst.
- E) Lingual thyroid.

Answer: C

**Which gland basically regulates and controls the actual activity of thyroid?**

- A) Pituitary gland
- B) Hypothalamus
- C) Both A and B
- D) Only B

Answer: C

**Regarding suprarenal gland, which is not correct:**

- A) located retroperitoneal
- B) located at the level of 11<sup>th</sup> rib
- C) IVC is located antromedial to the left adrenal gland

Answer: C



**Pituitary gland, choose the correct answer:**

- A) neurohypophysis has chromophobe and chromophilic cells
- B) neurohypophysis has secretory cells
- C) located lateral to cavernous sinus
- D) pars tuberalis supplied by superior hypophyseal art.

**Answer: D**

**Superior thyroid vein drain into:**

- A) thyrocervical vein
- B) brachiocephalic vein
- C) External jugular vein
- D) Internal jugular vein

**Answer: D**

**Pituitary gland, choose the wrong match:**

- A) Bitemporal hemianopsia... pituitary adenoma
- B) craniopharyngioma.... embryonic squamous remnants of Rathke pouch
- C) portal circulation.... pars tuberalis
- D) pars nervosa... diencephalon

**Answer: C**

**After the thyroidectomy, the surgeon noticed hoarseness in the patient's voice. Which of the following structure has been affected?**

- A) superior thyroid artery
- B) Inferior thyroid artery
- C) external laryngeal nerve
- D) Parathyroid gland

**Answer: C**

**The hormone that controls the level of calcium and phosphorus in blood is secreted by**

- A) Thyroid gland
- B) Parathyroid gland
- C) Pituitary gland
- D) Thymus

Answer: B

**Where are parathyroid glands present?**

- A) Posterior surface of lateral lobes of thyroid
- B) Posterior to stomach
- C) On top of kidneys
- D) Upper chest under breastbone

Answer: A

**Which one of the following is not secreted by pituitary gland?**

- A) Prolactin.
- B) Oxytocin.
- C) G.H.
- D) Somatomedin.
- E) L.H.

Answer: D

**All of the following are true about GH except:**

- A) Gigantism Is Related To Overproduction Of Growth Hormone.
- B) Another term for Growth hormone is somatotropin.
- C) GH and insulin function synergistically.
- D) GH decrease glucose uptake by muscle cells.
- E) Somatostatin stimulate GH release.

Answer: E

**Is the part of the brain that controls the anterior pituitary gland secretions**

- A) Pineal Gland.
- B) Thalamus.
- C) Hypothalamus.
- D) Medulla oblongata.
- E) Corpus Callosum.

**Answer: C**

**Which of the following is not involved in regulation of plasma  $Ca^{++}$  levels**

- A) Thyroid.
- B) Small intestine.
- C) Lungs.
- D) Kidneys.

**Answer: C**

**PTH has which of the following primary actions ?**

- A) It decreases renal tubular calcium reabsorption.
- B) It increases bone resorption.
- C) It increases gastrointestinal calcium absorption.
- D) It increases 24,25-(OH)<sub>2</sub>-vitamin D synthesis.
- E) It decreases urinary phosphate excretion.

**Answer: B**

**Which of the following is WRONG:**

- A) Inferior parathyroid originate from dorsal wing of 4th pouch
- B) The thymus originate from ventral wing of 3th pouch
- C) oxyphil cells show low levels of PTH synthesis

**Answer: A**

**Pituicytes are most precisely described as :**

- A) modified neurons
- B) Secretory cells in the post pituitary
- C) Glial cells in the pars nervosa

**Answer: C**

**Which of these structures is located posteriorly to both right and left suprarenal gland:**

**Answer: Diaphragm**

**Basophils don't secrete**

**Answer: GH**

**True**

**Answer: Arterial and venous supply to the medulla helps in the integration of functions between medulla and cortex**

**Parathyroid glands: which is incorrect:**

**Answer: Superior parathyroid glands receive most of their blood supply from the superior thyroid art.**

**parathyroid glands: which is incorrect:**

**Answer: the right parathyroid glands drain into the left internal jugular vein**

**Oxyphil cells ( wrong statement ) :**

**Answer: derived from the ultimobranchial body**

**(wrong statement):**

**Answer: the adrenal medulla is a modified parasympathetic ganglion.**

# Physiology

**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**

**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**

**Insulin: Choose the correct answer:**

- A) Requirements are increased in obesity
- B) Requirements are increased by exercise
- C) Requirements of night are similar to those during the day
- D) It produces tyrosine kinase a second messenger only
- E) Half-life is usually reduced in patients with diabetes mellitus

**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: 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**

**PTH has which of the following primary actions:**

- A) It decreases renal tubular calcium reabsorption
- B) It increases bone resorption
- C) It increases gastrointestinal calcium absorption
- D) It increases 24,25-(OH)<sub>2</sub>-vitamin D synthesis
- E) It decreases urinary phosphate excretion

**Answer: B**

**Which of the following hormones plays an important role in keeping the Plasma concentration of potassium within normal limits:**

- A) Calcitriol
- B) Vasopressin
- C) Glucagon
- D) Insulin
- E) Parathyroid hormone

**Answer: D**

**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

**Answer: D**

**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**

**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**



**One of the followings about the menstrual cycle is not true:**

- A) The development of the primary follicles occurs only at puberty till Menopause.
- B) Before the beginning of the ovarian cycle few follicles are activated.
- C) Sometimes ovulation fails to occur even if the ovarian cycle begins Normally.
- D) Almost all the non-growing follicles are primordial follicles
- E) This activation occurs genetically even if the gonadotropin hormones Are very low or absent

**Answer: E**

**Which of the following effects of insulin requires the least amount of the Hormone:**

- A) Inhibition of lipolysis
- B) Stimulation of muscle glucose transport
- C) Stimulation of muscle glucose uptake
- D) Inhibition of hepatic glucose production
- E) Stimulation of amino acid uptake

**Answer: A**

**Which of the following biochemical events is NOT true regarding the thyroid hormone synthesis:**

- A) One monoiodotyrosine molecule combines with one diiodotyrosine molecule to form one triiodothyronine molecule
- B) Two diiodotyrosine molecules combine to form one molecule of thyroxine
- C) Two iodine molecule combine with one tyrosine molecule to form one dodotyrosine molecule
- D) Iodine supply occurs within the thyroid follicular cell only
- E) Four iodine molecules combine with two tyrosine molecules to form one tetraiodothyronine molecule

**Answer: D**

**Which of the following hormones need calcium for its secretion:**

- A) GH
- B) T4
- C) cortisol
- D) insulin
- E) somatostatin

**Answer: D**

**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**

**Which of the following hormones is very important during early Development of the nervous system:**

- A) Cortisol
- B) Insulin
- C) Parathyroid hormone
- D) Growth hormone
- E) Thyroid hormone

**Answer: E**

**One of the following about the comparison of cortisol & aldosterone is NOT TRUE:**

- A) The role of cortisol in mineralocorticoid contribution is about 50% Compared to aldosterone
- B) Cortisol plays role in mineralocorticoid activity
- C) The role of aldosterone in glucocorticoid contribution is very low Compared to cortisol
- D) Aldosterone plays role is glucocorticoids activity
- E) Secretion rate of aldosterone is much more than cortisol

**Answer: E**

**Which of the following are incorrectly paired:**

- A) Epinephrine: increased glycogenolysis in skeletal muscle
- B) Progesterone: increased plasma glucose level
- C) Glucagon: increased gluconeogenesis
- D) Growth hormone: increased plasma glucose level
- E) Insulin: increased protein synthesis

**Answer: B**

**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 one of the following inhibits ADH secretion:**

- A) Hypoglycemia
- B) Pain
- C) Opiates
- D) Alcohol (Ethanol)
- E) Nicotin

**Answer: D**

**Which one of the following hormones gives an example for permissive Hormonal interaction functioning with glucagon:**

- A) Insulin
- B) Somatomadins
- C) T4
- D) GH
- E) Cortisol

**Answer: E**

**Which one of the following hormones has been implicated as one of the major determinants of growth in normal post-uterine life:**

- A) Androgens
- B) IGF-1
- C) T3
- D) Cortisol

**Answer: B**

**Aldosterone secretion is stimulated by increases in each of the following EXCEPT:**

- A) Renin
- B) Sodium
- C) ACTH
- D) Potassium
- E) Angiotensin-converting enzyme

**Answer: B**

**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**

**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**

**1,25-(OH)<sub>2</sub> - Vitamin D synthesis is increased by each of the following EXCEPT:**

- A) Vitamin D deficiency
- B) Calcitonin
- C) Parathyroid hormone (PTH)
- D) Phosphate deficiency
- E) Calcium deficiency

**Answer: B**

**One of the followings about testosterone and related hormones is true:**

- A) testosterones produce DHT which functions almost in all stages of life
- B) several tissues besides the testes produce the testosterone hormone
- C) DHT can be converted to steroidal.
- D) testosterone functions as a prohormone
- E) the biological activity of DHT is too much higher than that of testosterone

**Answer: D**

**Antidiuretic hormone: Choose the correct answer:**

- A) Is produced by posterior pituitary gland cells
- B) Increases the permeability of the cells in the 100p of Henle to water
- C) Secretion is little affected by changes in plasma osmolality of less than 10%
- D) Secretion increases when plasma volume falls but osmolality is unchanged
- E) Causes the osmolality of the plasma to rise

**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-OH<sub>2</sub> D is used to dispose of excess vitamin D

**Answer: D**

**All of the following are related to glucose regulation, EXCEPT:**

- A) glucagon
- B) insulin
- C) T4
- D) GH
- E) Estrogen

**Answer: E**

**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**

**The chemical nature of vitamin D is:**

- A) Tyrosine derivative
- B) Tripeptide
- C) Steroid
- D) Peptide
- E) Protein

**Answer: C**

**The secretion and release of growth hormone: Choose the incorrect answer:**

- A) Is promoted by hypothalamic GH releasing hormone and is pulsatile in nature
- B) Is prompted by IGFS
- C) Is increased by exercise and stress
- D) Is promoted by acetylcholine indirectly
- E) Is strongly inhibited by hypothalamic somatostatin

**Answer: B**

**Triiodothyronine (T3): choose the correct answer**

- A) Binds to plasma membrane receptors
- B) Is all protein bound in the circulation
- C) Promotes Growth.
- D) Is the only biologically active form of thyroid hormone
- E) 90% is formed from thyroxine (T4)

**Answer: C**



**The activity of the adrenal zona glomerulosa is stimulated mainly by:**

- A) Cortisol.
- B) Hypernatremia
- C) Hypokalaemia
- D) Angiotensin II
- E) Atrial natriuretic peptide

**Answer: D**

**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**

**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 of the following hormones DOES NOT USE CAMP as a second messenger:**

- A) PTH
- B) calcitonin
- C) oxytocin
- D) glucagon
- E) TSH

Answer: C

**Which one of the following about the mechanism of action of hormones is true:**

- A) Some hormones of steroid types bind with receptors in the cell membrane in certain conditions
- B) Most of the protein hormones have Diacylglycerol and IP3 as a second messengers
- C) All amino acids derivatives hormones bind with receptors inside the cells or nucleus
- D) Once the hormone binds with the receptors for sure it continuous to roceed functioning
- E) All steroid hormones bind always with receptors in the cells or nucleus

Answer: A

**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 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**

**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)<sub>2</sub>D<sub>3</sub>

**Answer: A**

**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 hormone isn't released from anterior Pituitary gland:**

- A) FSH
- B) LH
- C) Dopamine
- D) Prolactin
- E) ACTH

**Answer: C**

**Which one of the following about the function of the reproductive systems is NOT true:**

- A) Hormones secreted by gonads cause the appearance of features typical of the adult male or female and the onset of the sexual cycle in the female b
- B) In both sexes, gonadotropins secretion is cyclic.
- C) Evidence indicates that male sexual behaviour and the male pattern of gonadotropin secretion is due to the action of male hormones on the brain
- D) In male gonadal function declines slowly with advancing age, but the fertility persists
- E) Androgens and estrogens are normally secreted in both sexes

**Answer: B**

**Which one of the followings about cortisol functions is not true**

- A) Gluconeogenesis
- B) Glycogenolysis
- C) inhibition of glucose uptake
- D) ketogenesis
- E) lipolysis

**Answer: B**

**ACTH secretion is inhibited by**

- A) Cortisol
- B) Norepinephrine
- C) Androstenedione
- D) ADH
- E) Testosterone

**Answer: A**

**Trauma to the hypothalamohypophyseal tracts may cause:**

- A) Pituitary apoplexy
- B) Sheehan syndrome
- C) Bitemporal hemianopsia
- D) Craniopharyngioma
- E) Central diabetes insipidus

**Answer: E**

**About the pituitary gland, choose the correct statement:**

- A) Somatotrops hyperplasia during pregnancy, vulnerable portal circulation and severe postpartum uterine hemorrhage may lead to Sheehan syndrome
- B) Trauma to the hypothalamohypophyseal tracts may cause central diabetes insipidus
- C) It's posterior part contains the cells of the paraventricular and supraoptic nuclei
- D) Pituitary apoplexy is chronic hemorrhage of the pituitary gland
- E) Its anterior part contains basophilic cells which may be somatotrops or lactotrophs

**Answer: B**

**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**

**In which of the following thyroid abnormalities goitre DOES NOT occur:**

- A) Hypothyroidism due to lack of iodine
- B) Hyperthyroidism due to TSH
- C) Hypothyroidism due to primary failure of thyroid gland
- D) Hyperthyroidism due to hypersecreting thyroid tumor
- E) Hyperthyroidism secondary to excess hypothalamic secretion

**Answer: D**

**A decrease in extracellular fluid volume would be expected to cause increased secretion of all of the following EXCEPT:**

- A) Estrogen
- B) Renin
- C) Vasopressin
- D) ADH
- E) Cortisol

**Answer: A**

**Which organ or tissue is primarily responsible for producing 25-(OH). D:**

- A) skin
- B) bone
- C) kidney
- D) liver
- E) intestine

**Answer: D**

**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**

**This is the largest hormone in Size:**

- A) Angiotensin I
- B) Thyroxine
- C) Dihydrotestosterone
- D) Glucagon
- E) Vasopressin

**Answer: D**

**The free functional percentage of Aldosterone is:**

- A) relatively high
- B) very low
- C) very high
- D) high
- E) low

**Answer: A**

**During sleep there is a fall in the circulating level of: Choose the incorrect answer:**

- A) cortisol
- B) T4
- C) Growth hormone
- D) Adrenaline
- E) insulin

**Answer: A**

**If an adult non-pregnant woman injected with estrogen 48 hrs before the time of ovulation one of the followings choices is not true:**

- A) LH secretion drastically increases. (surge)
- B) GnRh secretion increases.
- C) FSH increases.
- D) Ovulation occurs.
- E) Ovulation does not occur

**Answer: E**



**Which hormone is required for normal function for the growth hormone:**

- A) Insulin
- B) Somatomedin
- C) T3
- D) T4
- E) RT3

**Answer: A**

**The increased levels of one choice of the following hormones accompany the maternal morning sickness:**

- A) Progesterone and estrogen
- B) Human placental lactogens (HPLS) and prolactin
- C) TRH and TSH
- D) GnRh and LH
- E) hCG and Thyroxine

**Answer: E**

**Wrong about hormones:**

**Answer: Different hormones don't have different functions**

**which contraceptive method has more than one advantage:**

**Answer: spiral**

**Which inhibits GH secretion**

**Answer: somatostatin**

**wrong about cryptorchidism:**

**Answer: percentage in premature babies 50%**

**Wrong:**

**Answer: PTH and Vit D are the only hormones involved in Ca metabolism**

**Which hormone initiates uterine contraction:**

**Answer: Fetal ACTH**

**Hormones that play an important role in maintaining plasma concentration From K + within normal limits:**

**Answer: insulin**

**Which of the following does not use cAMP as a second messenger:**

**Answer: insulin & oxytocin (both are correct)**

**Which hormone needs calcium to be released:**

**Answer: insulin**

**Not true about hormone:**

**Answer: hormones have same function on different target tissue**

**What is the hormone that decreases insulin secretion:**

**Answer: leptin**

**Which of the following hormones is very important during early development of the nervous system:**

**Answer: T4**

**Which hormone doesn't contribute with the GH in protein synthesis:**

**Answer: Estrogens**

**What is the chemical nature of vitamins:**

**Answer: steroids**

**Which of the following is not true about menstrual cycle:**

**Answer: corpus luteum functions till the end of pregnancy**

**Wrong, about male if one testis isn't present:**

**Answer: producing sperms the patient is infertile**

**What's wrong about calcium metabolism**

**Answer: it's regulated by PTH & vitamin D ONLY**

**No goiter:**

**Answer: Hypersecreting thyroid tumor**

**Incorrect about thyroid hormones:**

**Answer: both bound hormone and free hormone have same functions**

**Which of the following is incorrect regarding Vitamin D:**

**Answer: D2, D3 they have the same efficiency**

**which of the following false about viagra:**

**Answer: aphrodisiac drug**

**Involved in K<sup>+</sup> homeostasis:**

**Answer: Insulin**

**Hormone that works with GH:**

**Answer: Insulin**

**Vitamin D belongs to :**

**Answer: Steroids**

**Doesn't stimulate aldosterone:**

**Answer: Angiotensin I**

**Requires calcium for secretion:**

**Answer: Insulin**

**Wrong:**

**Answer: Day-day maintenance of sodium levels requires maximal secretion of aldosterone**

**Wrong:**

**Answer: Stores thyroid hormones in follicular cells**

**Fetal CNS development:**

**Answer: T4**

**GH & thyroxine:**

**Answer: Permissive**

**Not involved in raising blood glucose:**

**Answer: Estrogen**

**Causes death in diabetic patients:**

**Answer: Dehydration and acidosis**

**Wrong:**

**Answer: 75% of T3 is produced by thyroid gland**

**Anterior pituitary doesn't secrete:**

**Answer: Dopamine**

**Doesn't depend on insulin:**

**Answer: Erythrocytes**

**Somatostatin inhibits:**

**Answer: GH**

**Adrenocortical hormones aren't :**

**Answer: Primarily stimulated by ACTH**

**Wrong:**

**Answer: Hormones are carried from hypothalamus to posterior pituitary through capillaries**

**Gluconeogenesis, lipolysis and inhibit glucose uptake:**

**Answer: GH and cortisol.**

**The End**

**Good Luck シ**