study time

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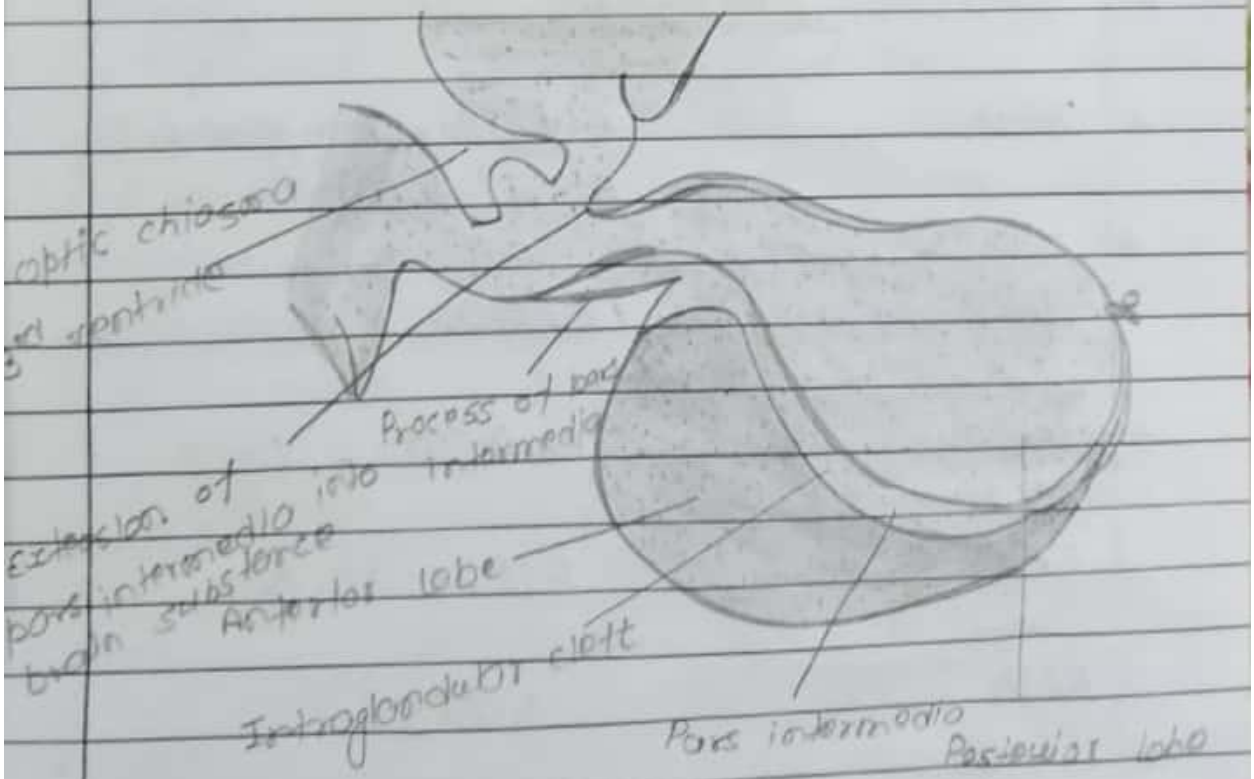
Q:- Write Notes on Histology of Pituitary ?

Ans:- **Pituitary gland** :- In vertebrate anatomy, the pituitary gland, or hypophysis, is an endocrine gland, about the size of a pea and weighing 0.5 grams (0.018 oz) in humans. It is a protrusion off the bottom of the hypothalamus at the base of the brain. The hypophysis rests upon the hypophysial fossa of the sphenoid bone in the center of the middle cranial fossa and is surrounded by a small bony cavity (sella turcica) covered by a dural fold (diaphragma sellae). The anterior pituitary (or adenohypophysis) is a lobe of the

gland that regulates several physiological processes (including stress, growth, reproduction, and lactation). The intermediate lobe synthesizes and secretes melanocyte-stimulating hormone. The posterior pituitary (or neurohypophysis) is a lobe of the gland that is functionally connected to the hypothalamus by the median eminence via a small tube called the pituitary stalk (also called the infundibular stalk or the infundibulum).



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Details

Precursor	neural and oral ectoderm, including Rathke's pouch
Artery	superior hypophyseal artery, infundibular artery, prechiasmal artery, inferior hypophyseal artery, capsular artery, artery of the inferior cavernous sinus

Identifiers

Latin	hypophysis, glandula pituitaria
MeSH	D010902
NeuroNames ID	hier-1353
TA	A11.1.00.001
FMA	13889

Structure :-

The pituitary gland, in humans, is a pea-sized gland that sits in a protective bony enclosure called the sella turcica. It is composed of three lobes: anterior, intermediate, and posterior. In many animals, these three lobes are distinct. The intermidiate is avascular and almost absent in human beings. The intermediate lobe is present in many animal species, in particular in rodents, mice and rats, that have been used extensively to study pituitary development and function. In all animals, the fleshy, glandular anterior pituitary is distinct from the neural composition of the posterior pituitary, which is an extension of the hypothalamus.

Anterior :-

The anterior pituitary arises from an invagination of the oral ectoderm and forms Rathke's pouch. This contrasts with the posterior pituitary, which originates from neuroectoderm.

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Hormones :-

Hormones secreted from the pituitary gland help control the following body processes:

- Growth (GH)
- Blood pressure
- Some aspects of pregnancy and childbirth including stimulation of uterine contractions
- Breast milk production
- Sex organ functions in both sexes
- Thyroid gland function
- Metabolic conversion of food into energy
- Water and osmolarity regulation in the body
- Water balance via the control of reabsorption of water by the kidneys.
- Temperature regulation
- Pain relief

See also :-

- Caution
- Head and neck anatomy
- Melanotroph