

Anatomy of endocrinal glands

Lab 1

Endocrinal glands

Pineal gland

Hypothalamus

Pituitary gland

Thyroid gland

Parathyroid glands
(on dorsal aspect
of thyroid gland)

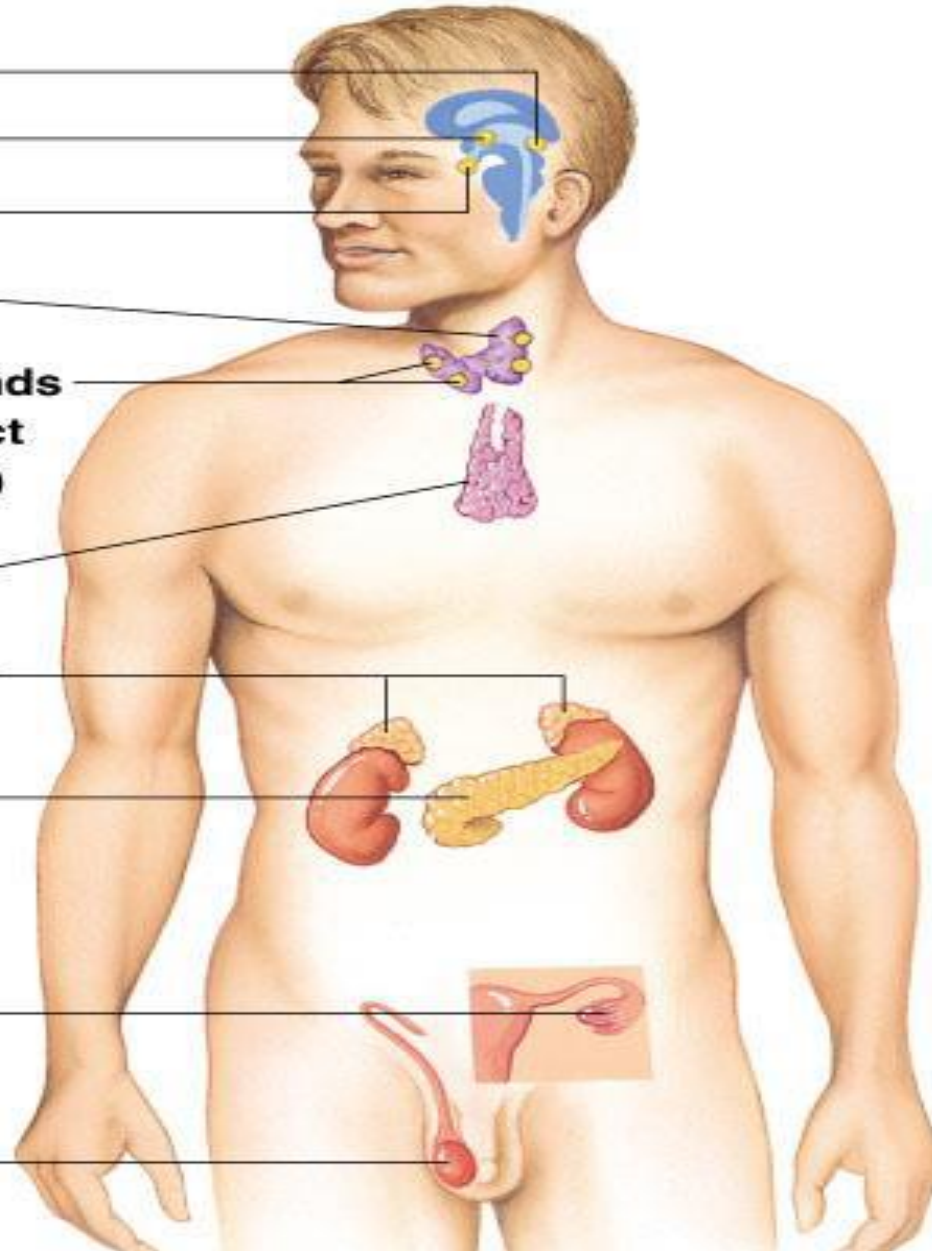
Thymus gland

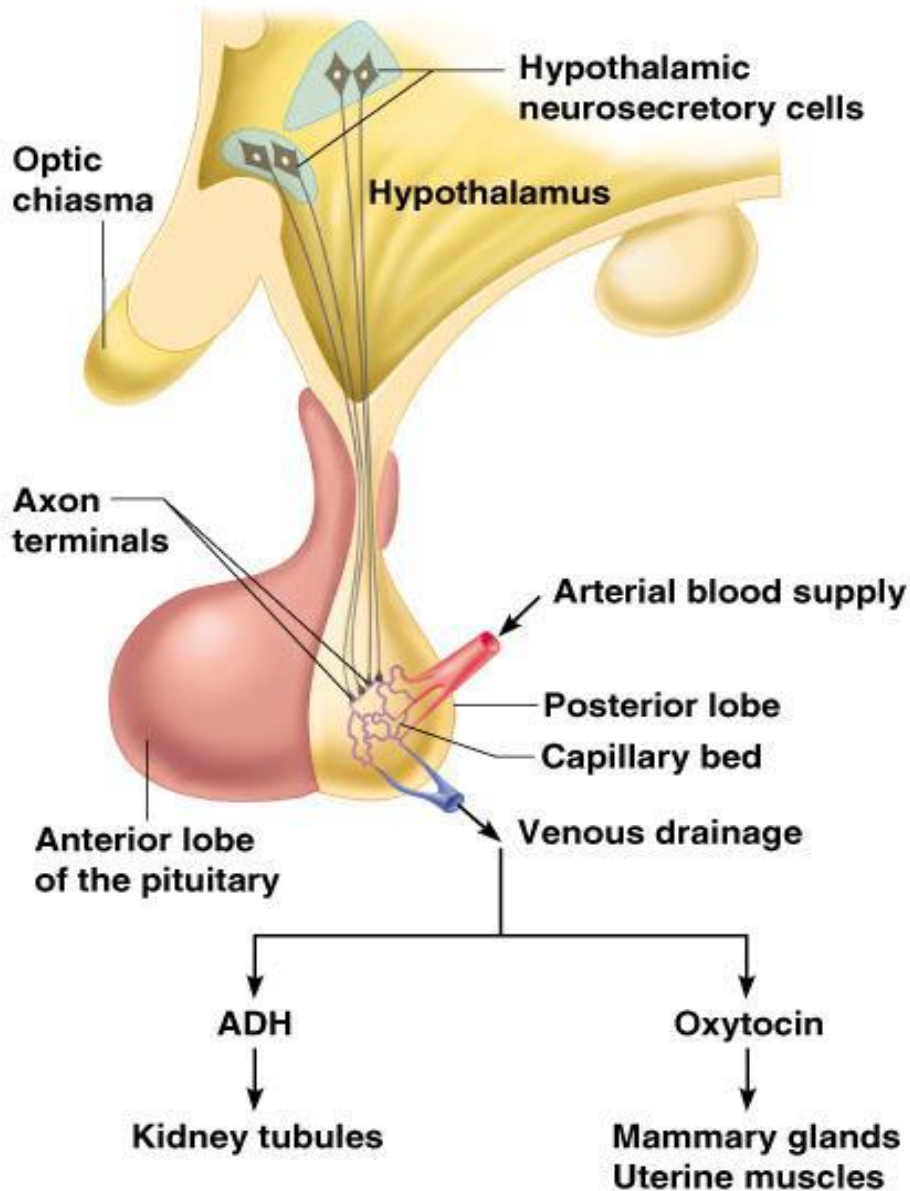
Adrenal glands

Pancreas

Ovary
(female)

Testis
(male)





Pituitary Gland

- Small gland in brain
- Controlled by hypothalamus
- Divided into 2 regions

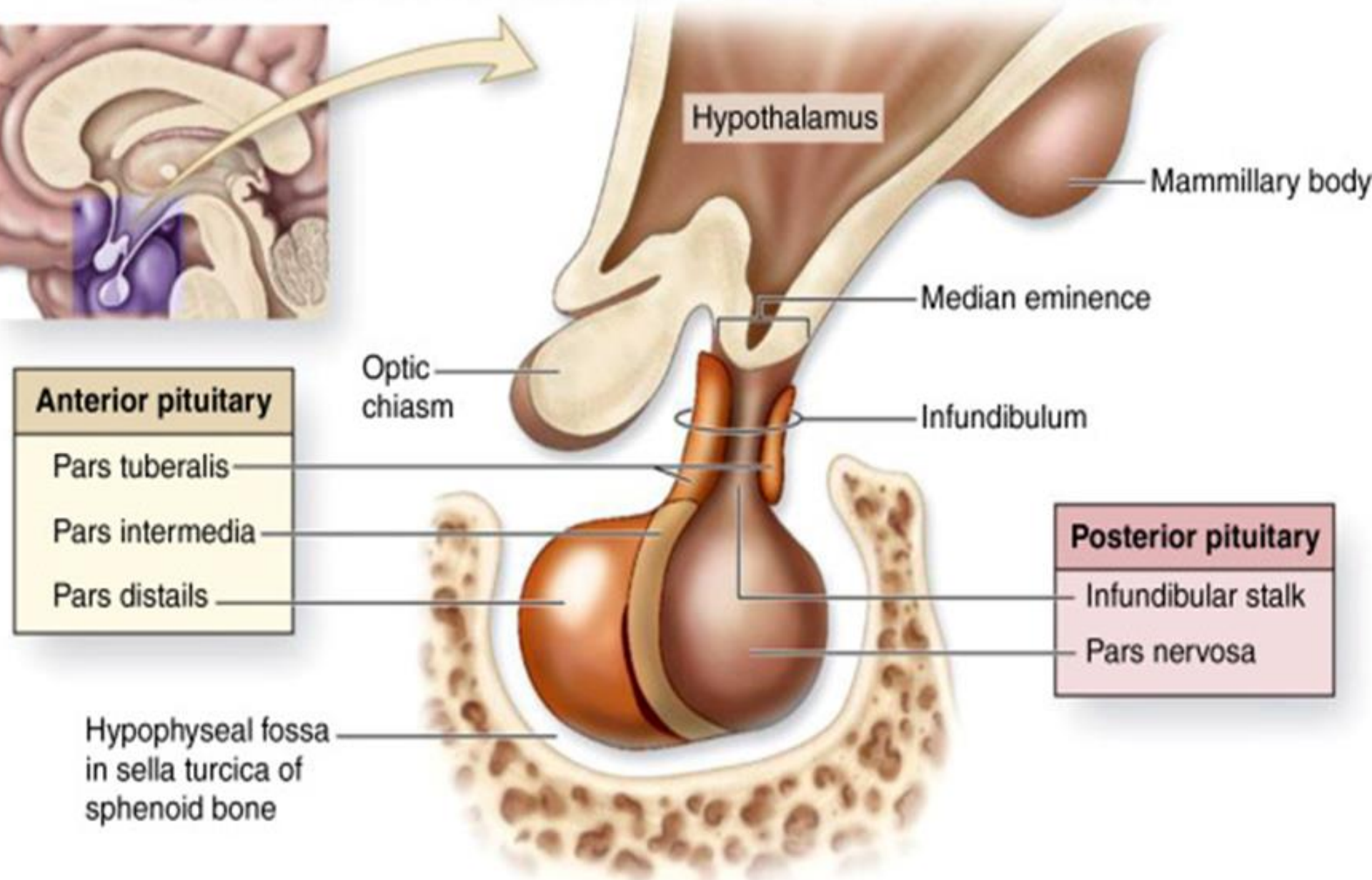
1- Anterior (Adenohypophysis)

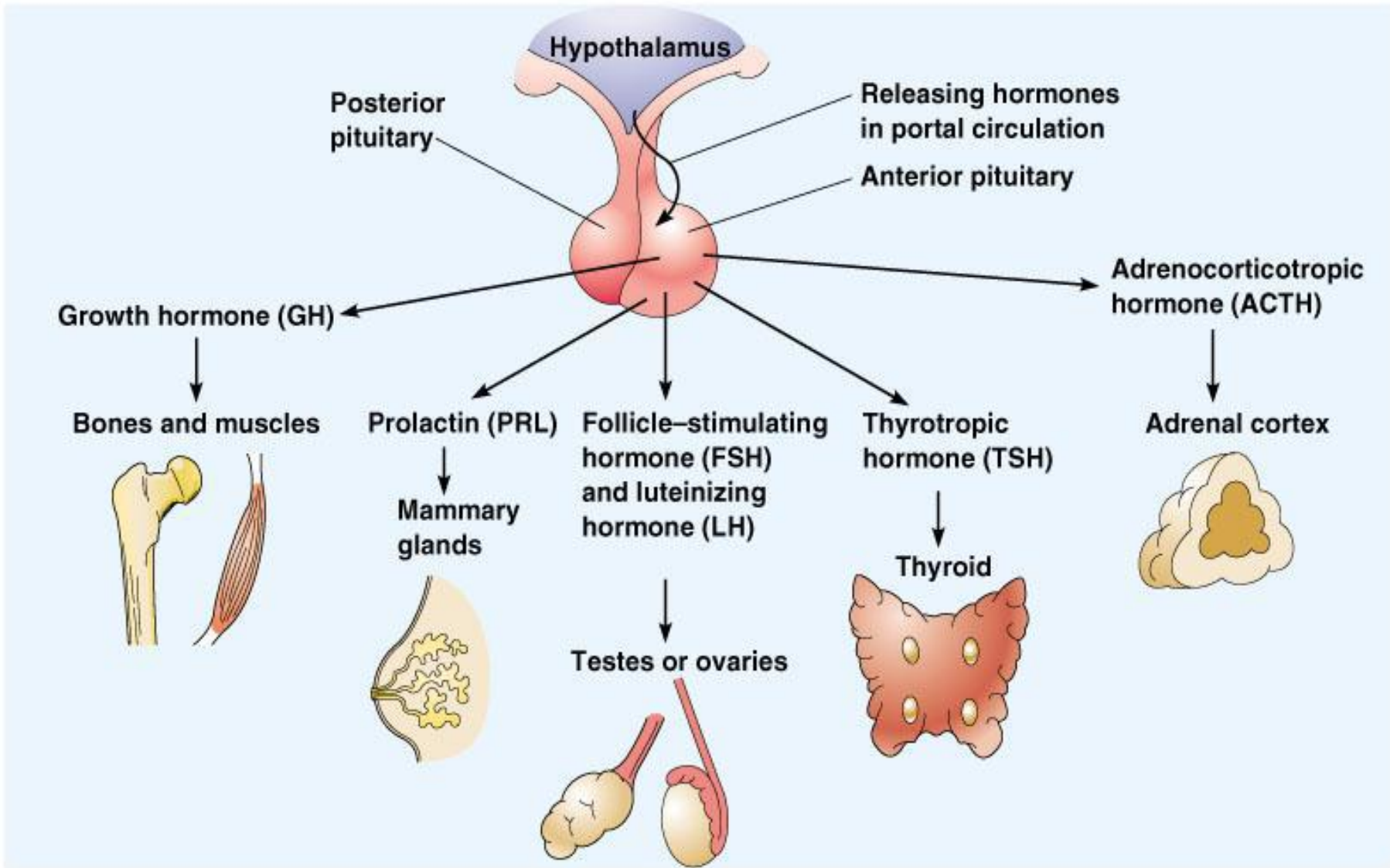
consist of pars distalis, pars intermedia & pars tuberalis.

2- Posterior (Neurohypophysis):

consist of pars nervosa, infundibular stalk & median eminence.

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Thyroid gland

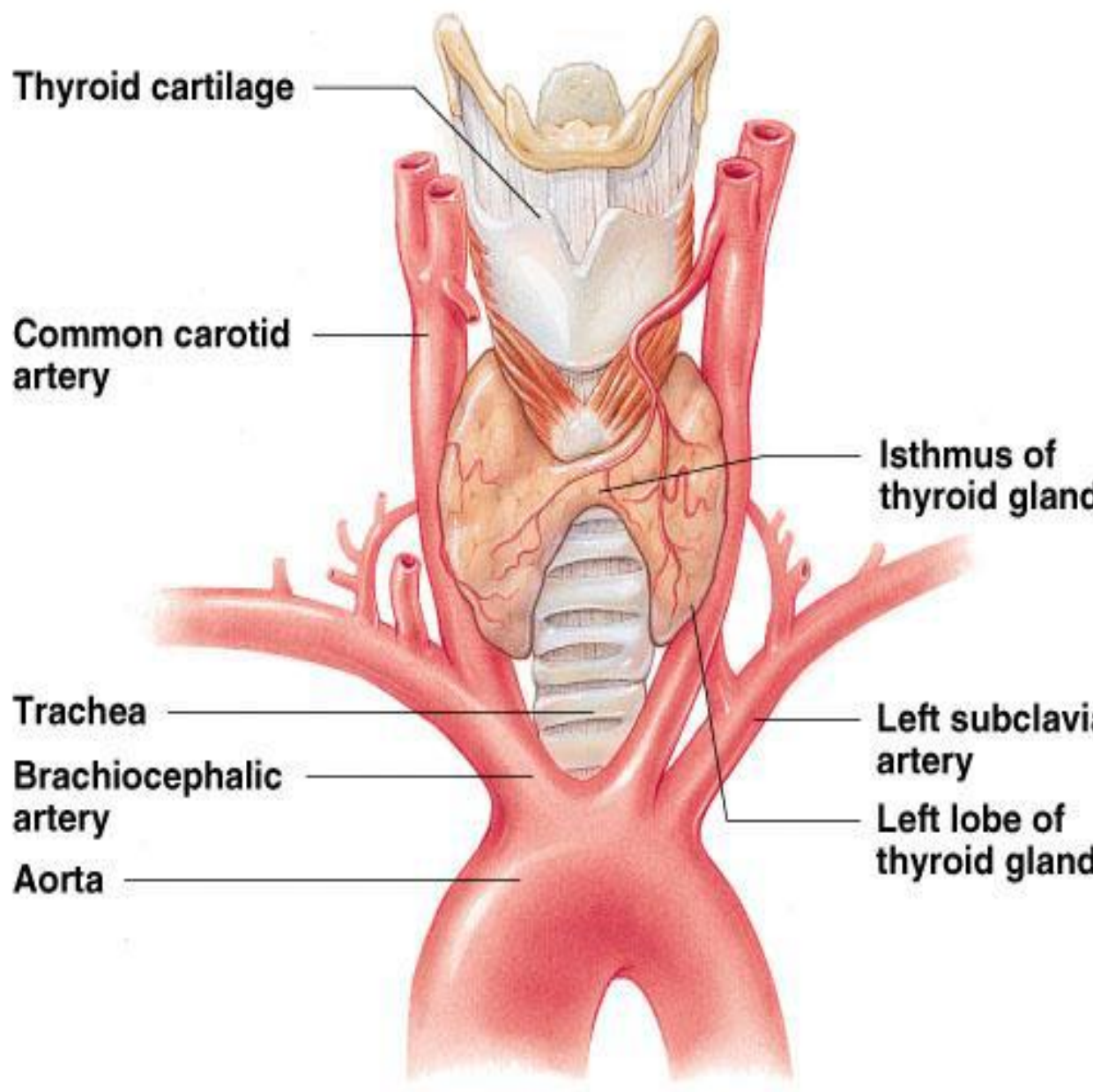
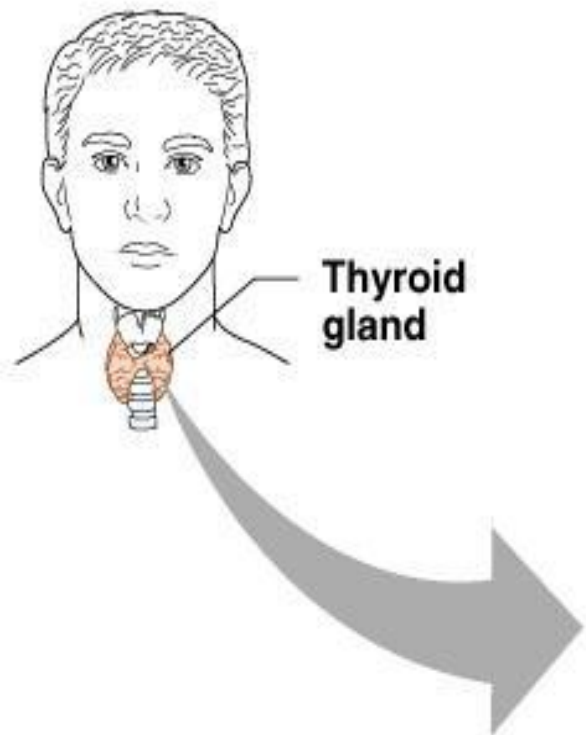
Found at the base of the
throat

Consists of two lobes and a
connecting isthmus

Produces two hormones

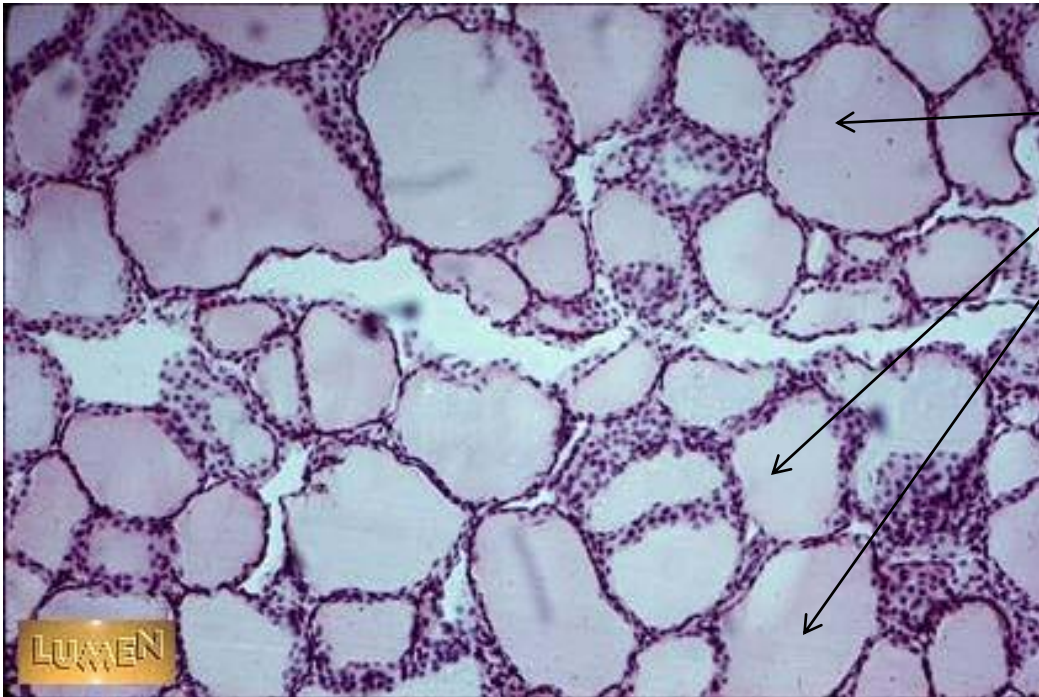
Thyroid hormone

Calcitonin



(a)

Thyroid Gland



**Thyroid
Follicles are
filled with pink
material which
is colloid**

**The follicles
normally vary
in size**

Parathyroid gland

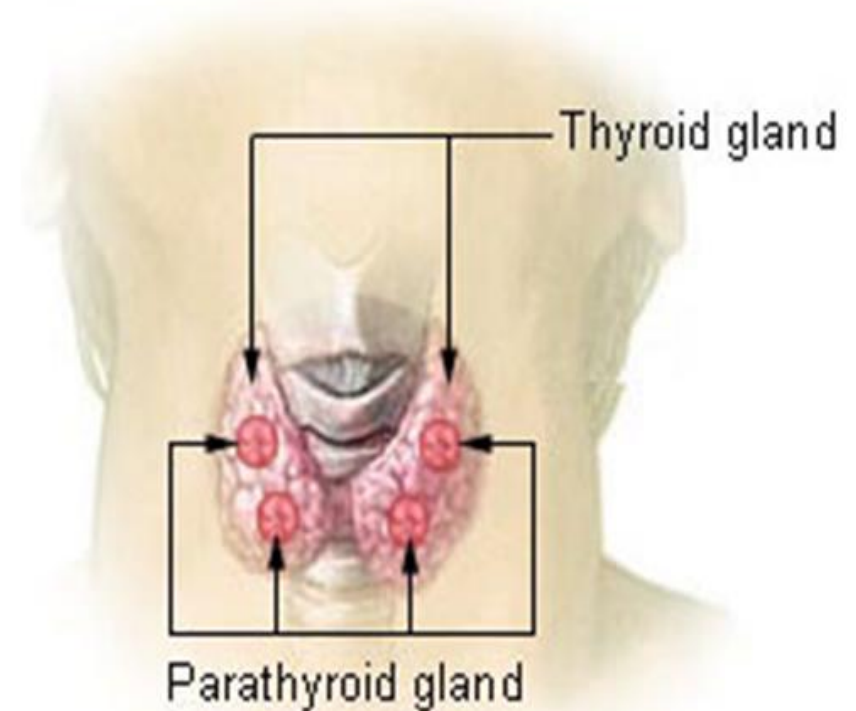
Small ovoid bodies embedded in the connective tissue capsule on the posterior surface of thyroid gland.

Consists of 2 types of cells:

Chief cells (principal cells): parathyroid hormone (PTH).

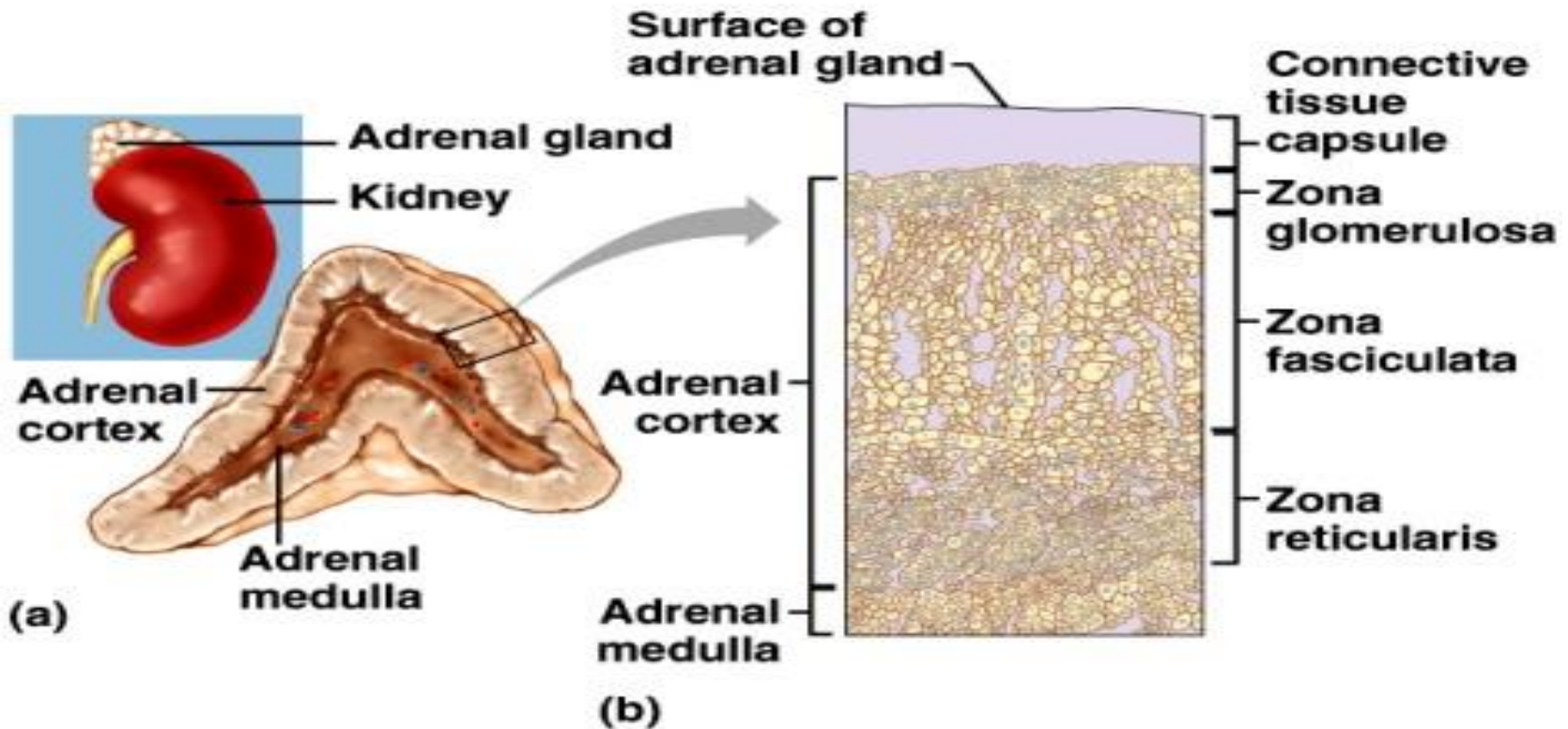
Oxyphil cells: larger in shape, deep acidophilic cytoplasm.

Thyroid and Parathyroid Glands



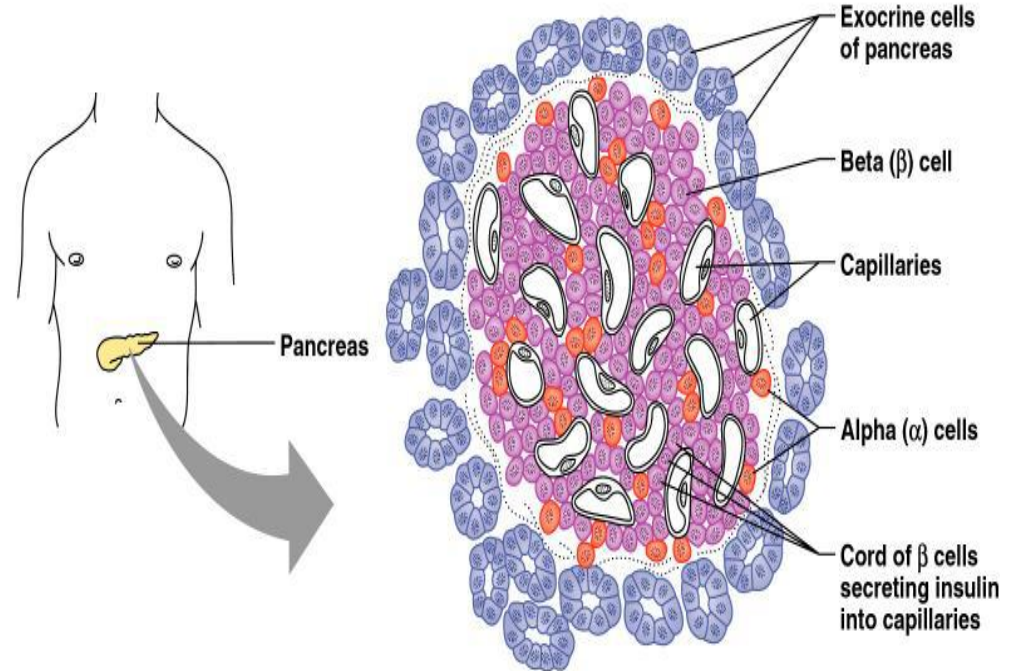
Adrenal glands

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Pancreatic islets

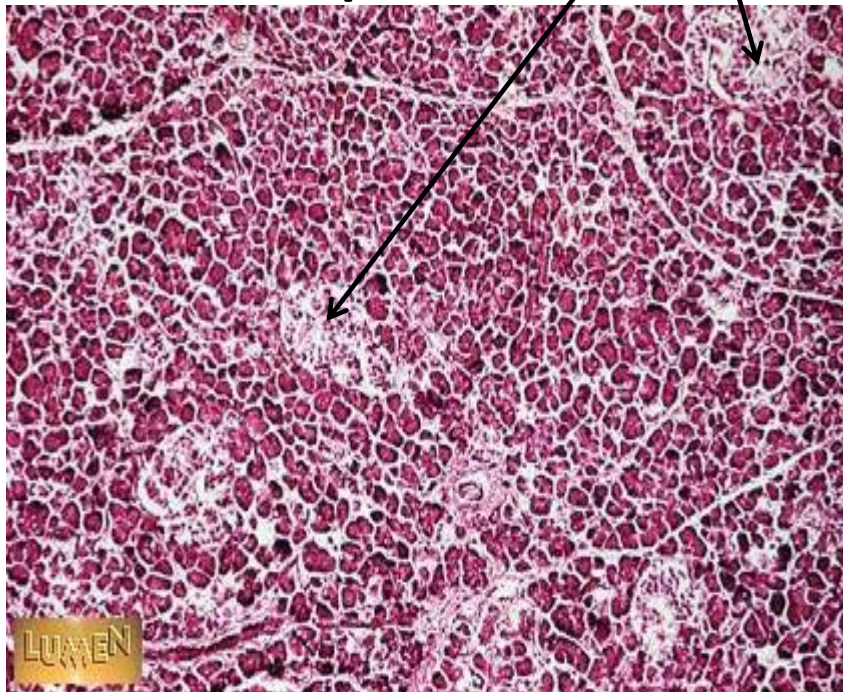
- The pancreas is a mixed gland
- The islets of the pancreas produce hormones
- Insulin – allows glucose to cross plasma membranes into cells from beta cells
- Glucagon – allows glucose to enter the blood from alpha cells



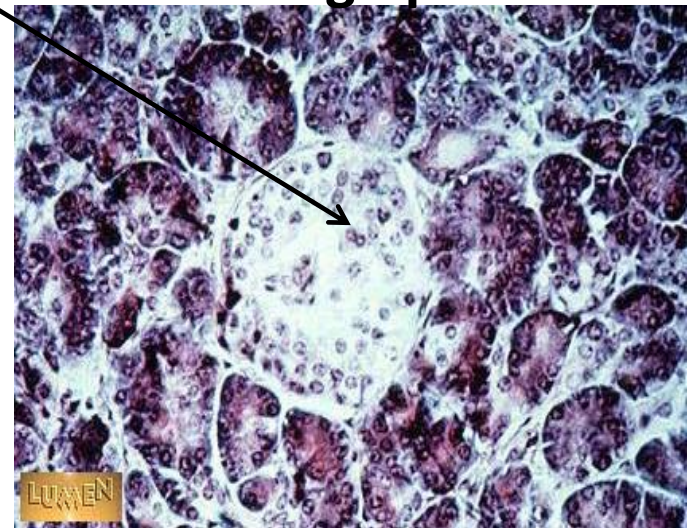
Endocrine Pancreas

Islets of Langerhans

Low power



High power



Pineal gland

Found on the
third ventricle of
the brain

Secretes
melatonin

Helps establish
the body's wake
and sleep cycles

