

**Al-mustaqbal university
collage**

College of Dentistry

Second stage

2Lap:

pituitary gland

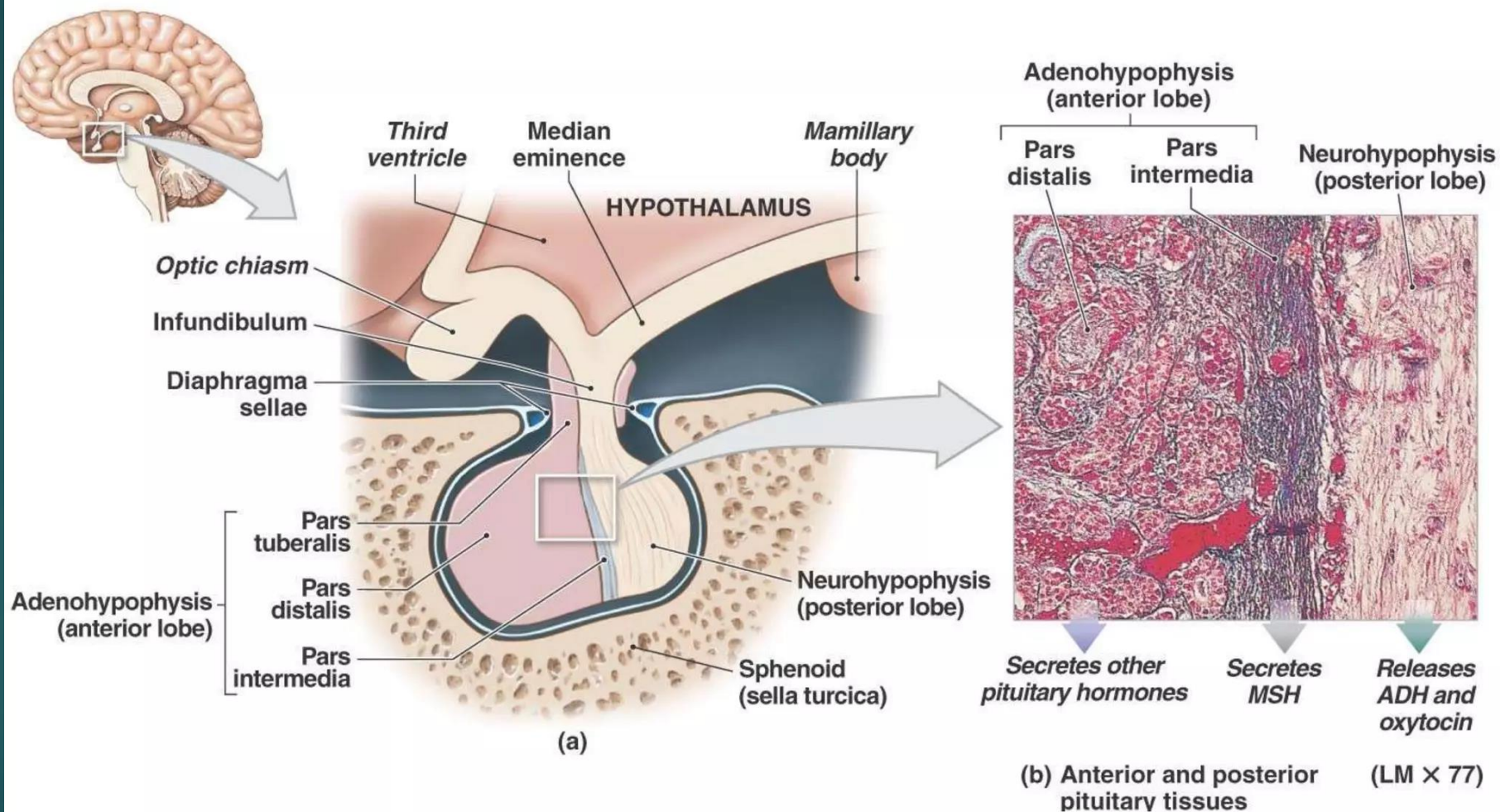
By

MSC: Ali Talib Ahmed Al aaraji



جامعة المستقبل
AL MUSTAQBAL UNIVERSITY

Pituitary gland...



1. Hypophysis (Pituitary Gland)

- The hypophysis consists of **glandular(Adenohypophysis) & nervous portions(Neurohypophysis)**

At low power, identify:

- **Adenohypophysis:**

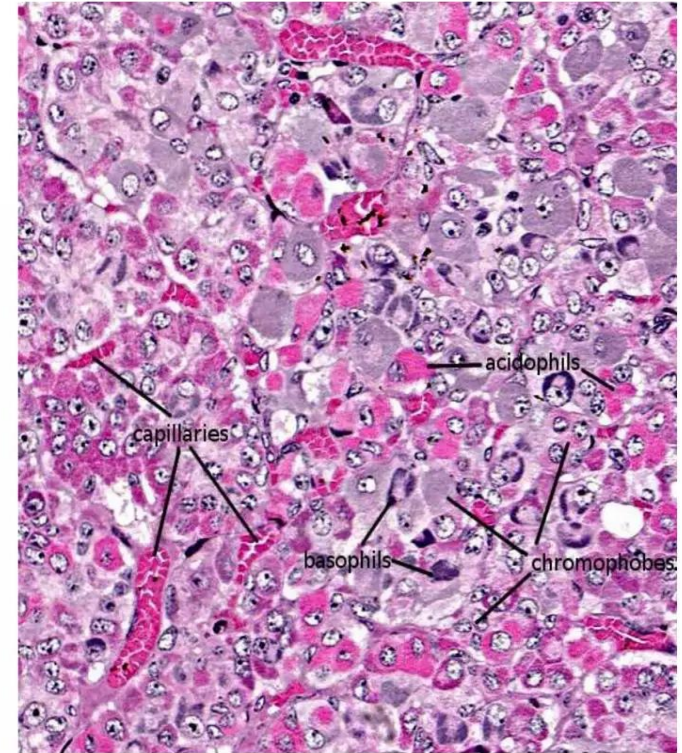
- Pars anterior (pars distalis; anterior pituitary).
- Pars intermedia(remnant of Rathke pouch rudimentary in human beings) .
- Pars tuberalis

- **Neurohypophysis:**

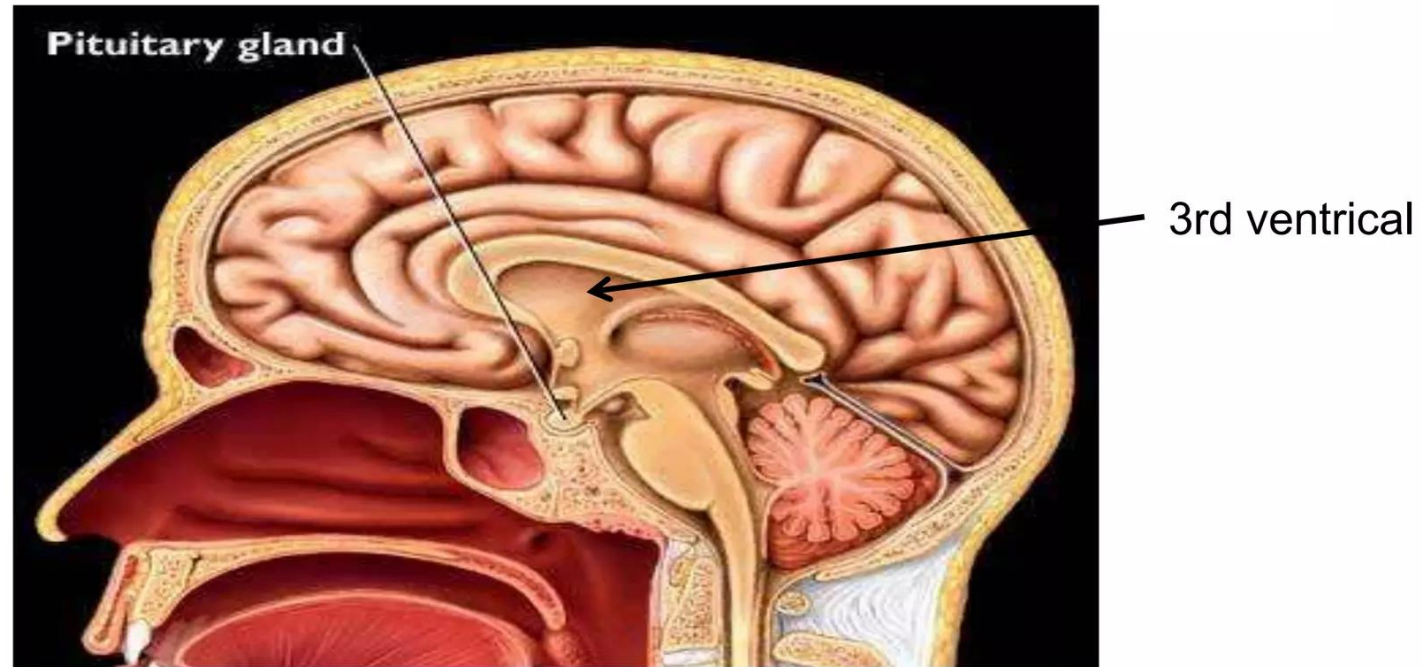
- Pars nervosa (posterior pituitary) consist of median eminence and infundibulum.

Anterior Pituitary (Pars Distalis /Pars Anterior)

- Cells can be divided into two classes on the basis of their staining characteristics:
- **Chromophils** ("color-loving"), and **chromophobes** ("color-fearing").
- Chromophils are further classified as **acidophils and basophils**.
- Each cell type produces only one type of hormone.
- parenchyma consists of secretory epithelial cells arranged in **anastomosing cords and clusters**.
- Abundant **sinusoidal capillaries with fenestration**



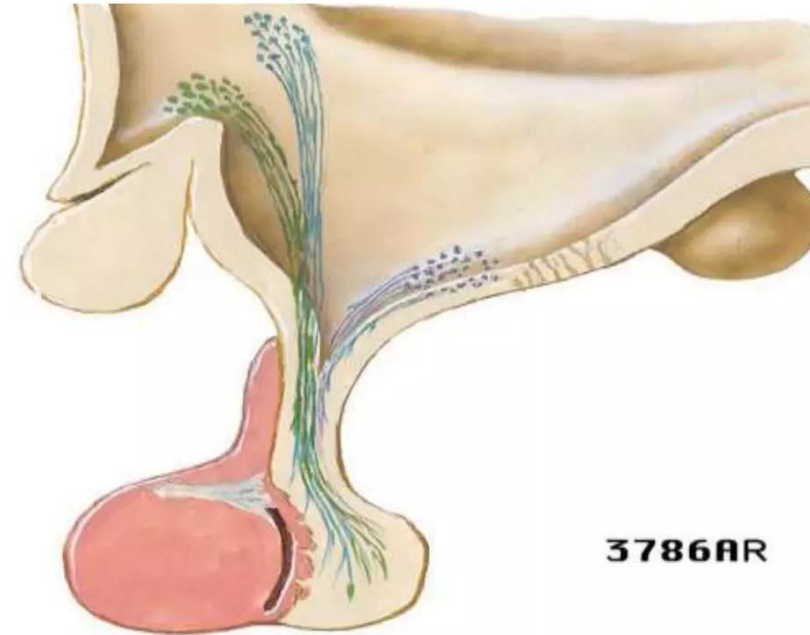
Pituitary Gland / Hypophysis Cerebri



- **Master gland of endocrine system**
- But under control of the hypothalamus
- Suspended from floor of 3rd ventricle

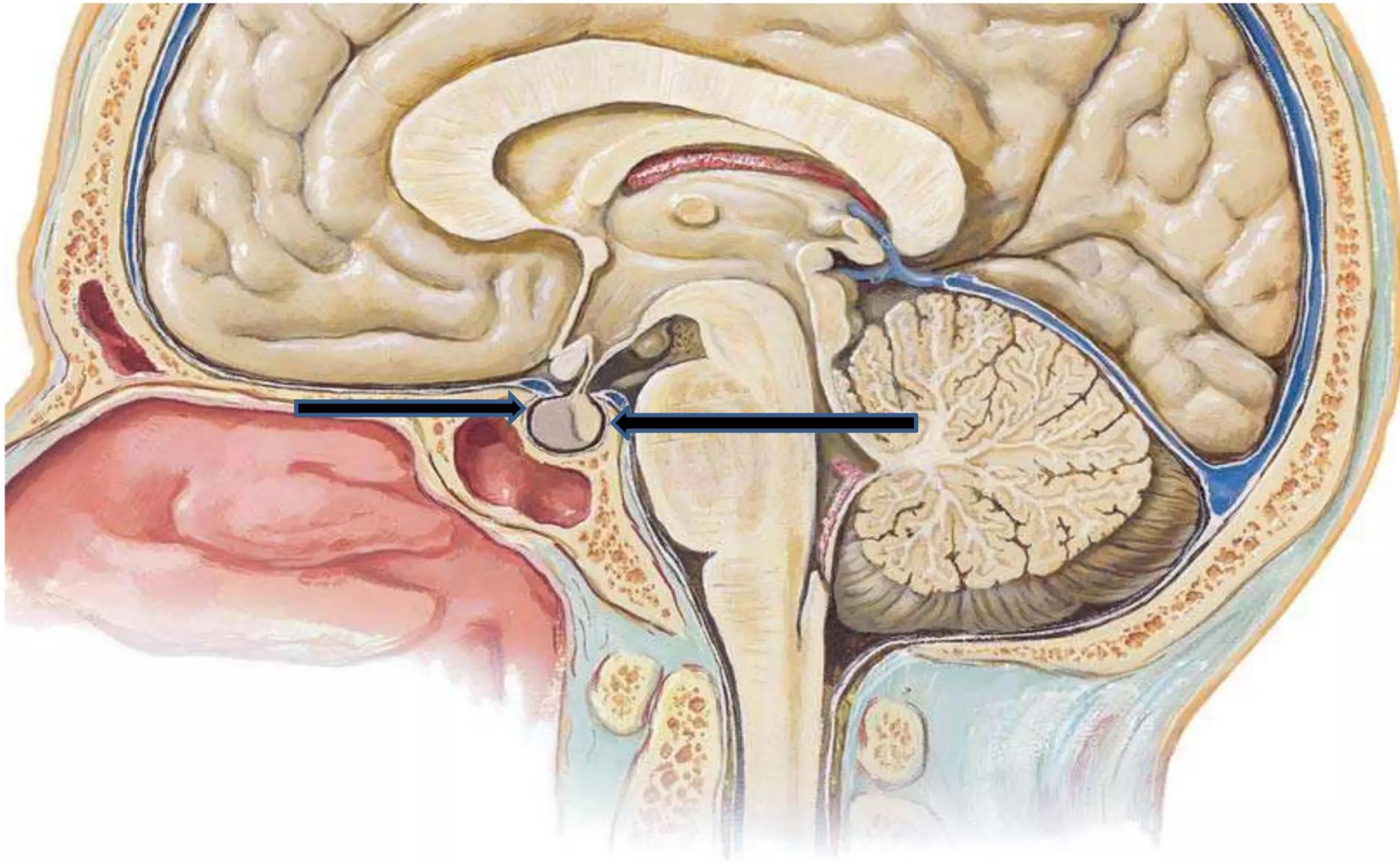
Pituitary Gland / Hypophysis Cerebri

- Size of small pea
- Reddish grey ovoid body
- Measurements:
 - Transverse - 12 mm
 - Antero-posterior - 8 mm
 - Weight- 500 mg



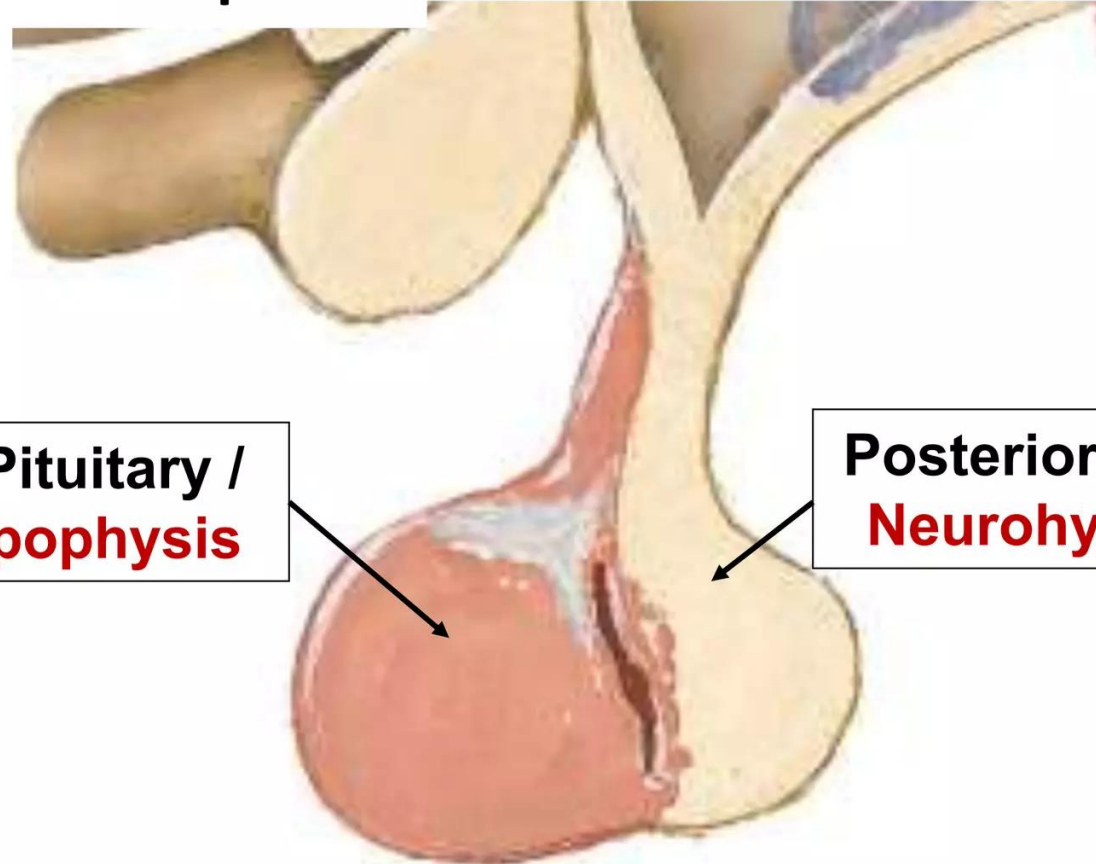
Position

Sella Turcica (Hypophyseal Fossa) Of Body Of Sphenoid



Subdivisions of Pituitary Gland

Subdivided into 2 parts:



**Anterior Pituitary /
Adenohypophysis**

**Posterior Pituitary /
Neurohypophysis**

Differ from each other:

Embryologically, Morphologically & Functionally

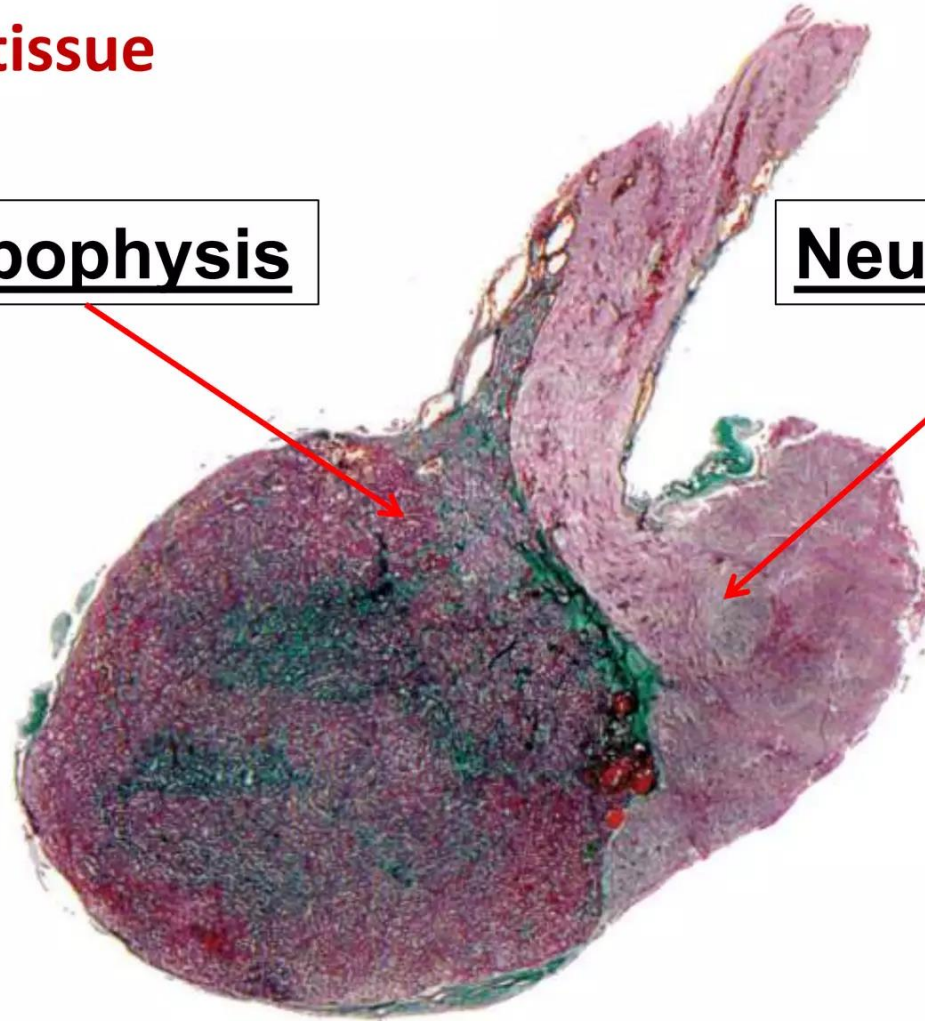
Microscopic Features

Glandular tissue

Neural tissue

Adenohypophysis

Neurohypophysis



Entire gland is covered by a connective tissue capsule

- Capsule adherent to dura
- No CSF around gland

