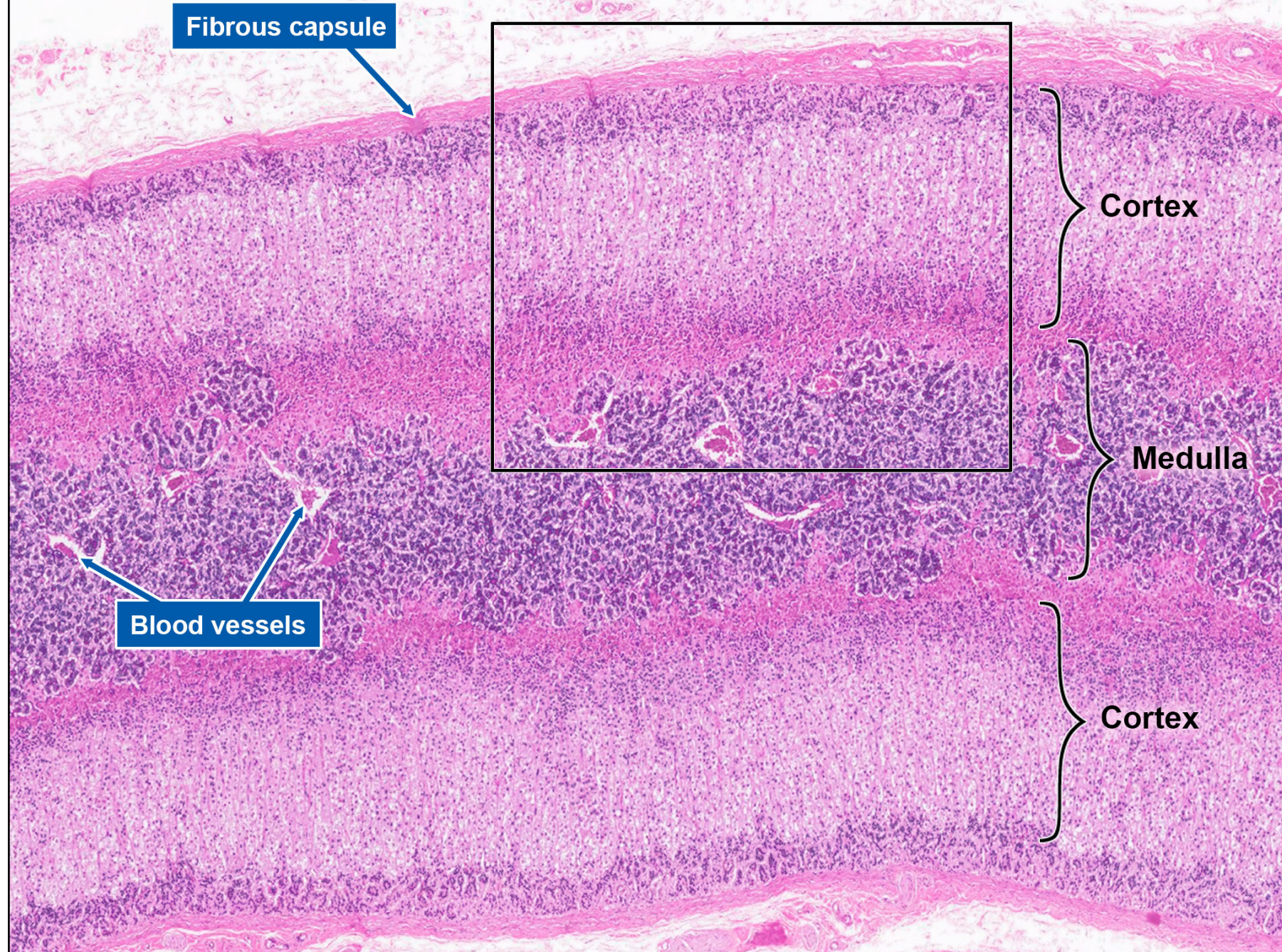


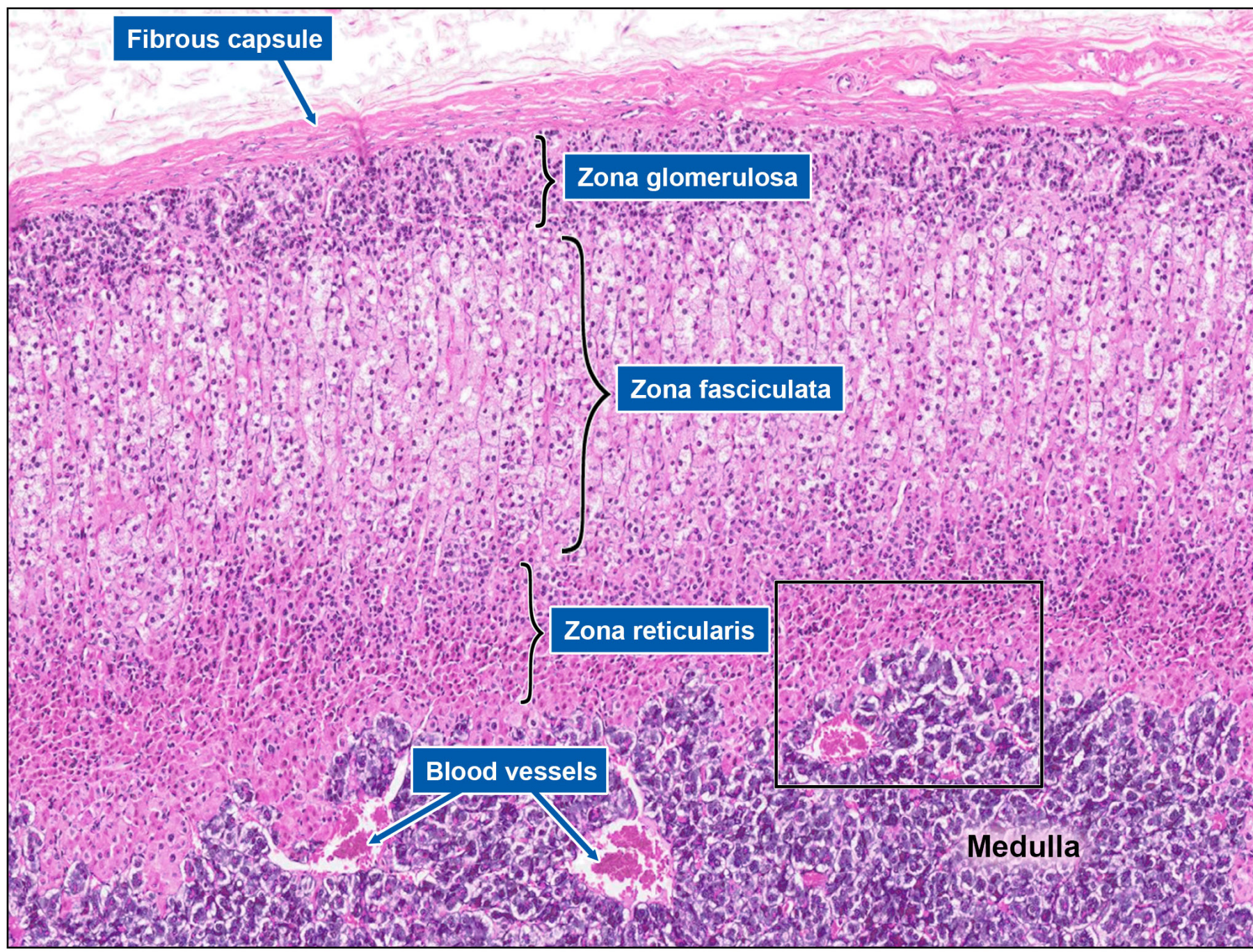
## ADRENAL GLAND

## Endocrine System

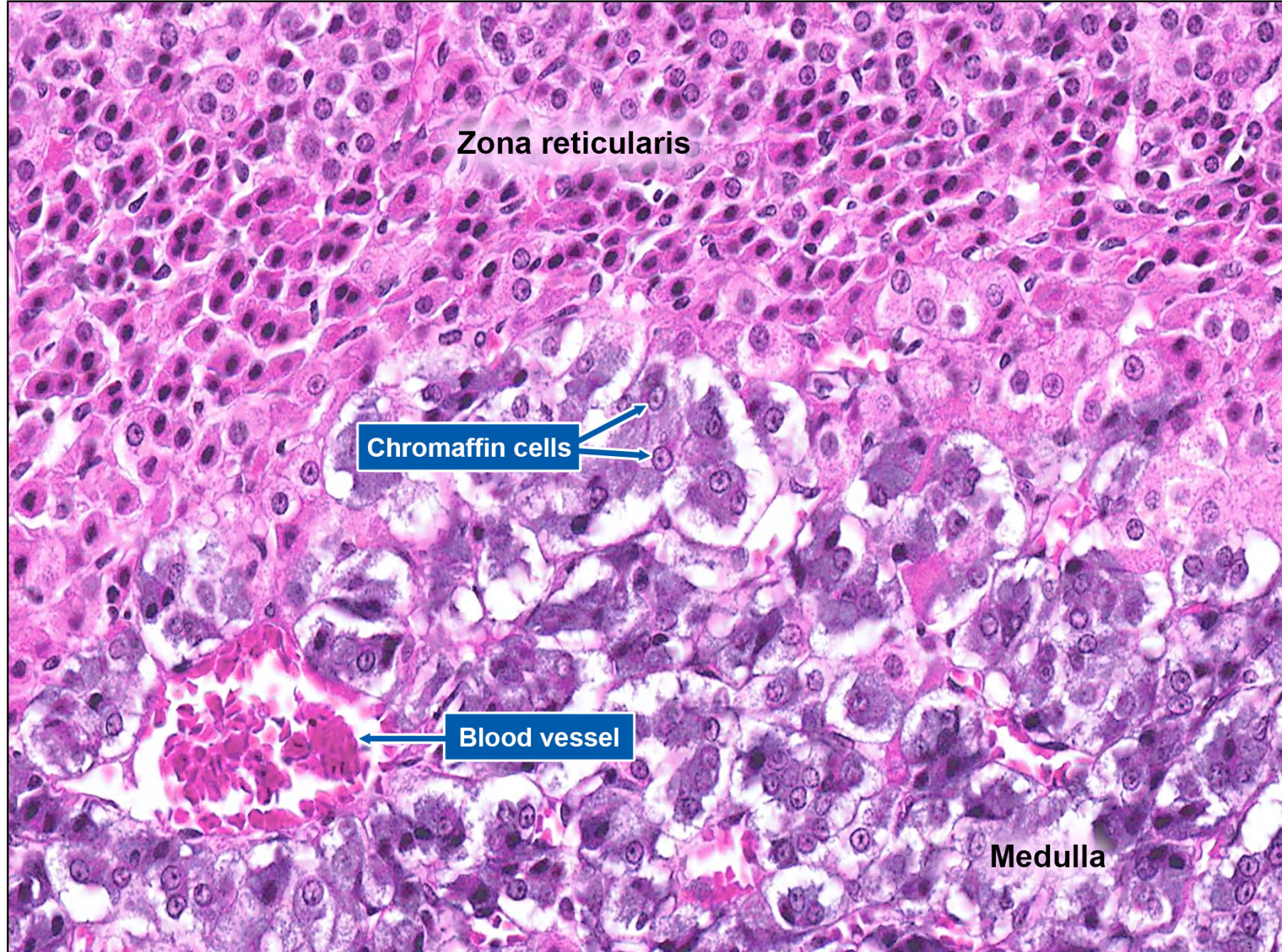
Adrenal glands, also known as Suprarenal glands, are paired structures buried in the perirenal adipose tissue at the upper poles of the kidneys.



Low magnification



High magnification



High magnification

- Secretory cells and microvasculature are supported by the stroma, which is made up of reticular fibres.
- Adrenal glands consist of a golden adrenal cortex and a reddish-brown adrenal medulla.
- Adrenal cortex is divided into three zones
- Zona glomerulosa is the outer zone and produces mineralocorticoids (aldosterone), which regulate electrolyte levels.
- Zona fasciculata are elongated strands of cells in the middle which produce glucocorticoids (cortisol), which regulate glucose metabolism.
- Zona reticularis is the innermost layer that produces weak androgen dehydroepiandrosterone (DHEA), which converts testosterone in both men and women.
- Adrenal medulla contains neural crest-derived chromaffin cells that regulate the stress response by producing epinephrine or norepinephrine.
- Cushing syndrome is a rare disease resulting from excess cortisol due to over production, or long-term steroid use.