



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

IN THE NAME OF ALLAH,
THE MOST GRACIOUS, THE MOST MERCIFUL

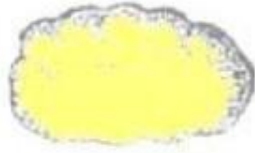
Gross Anatomy of OVARY

By

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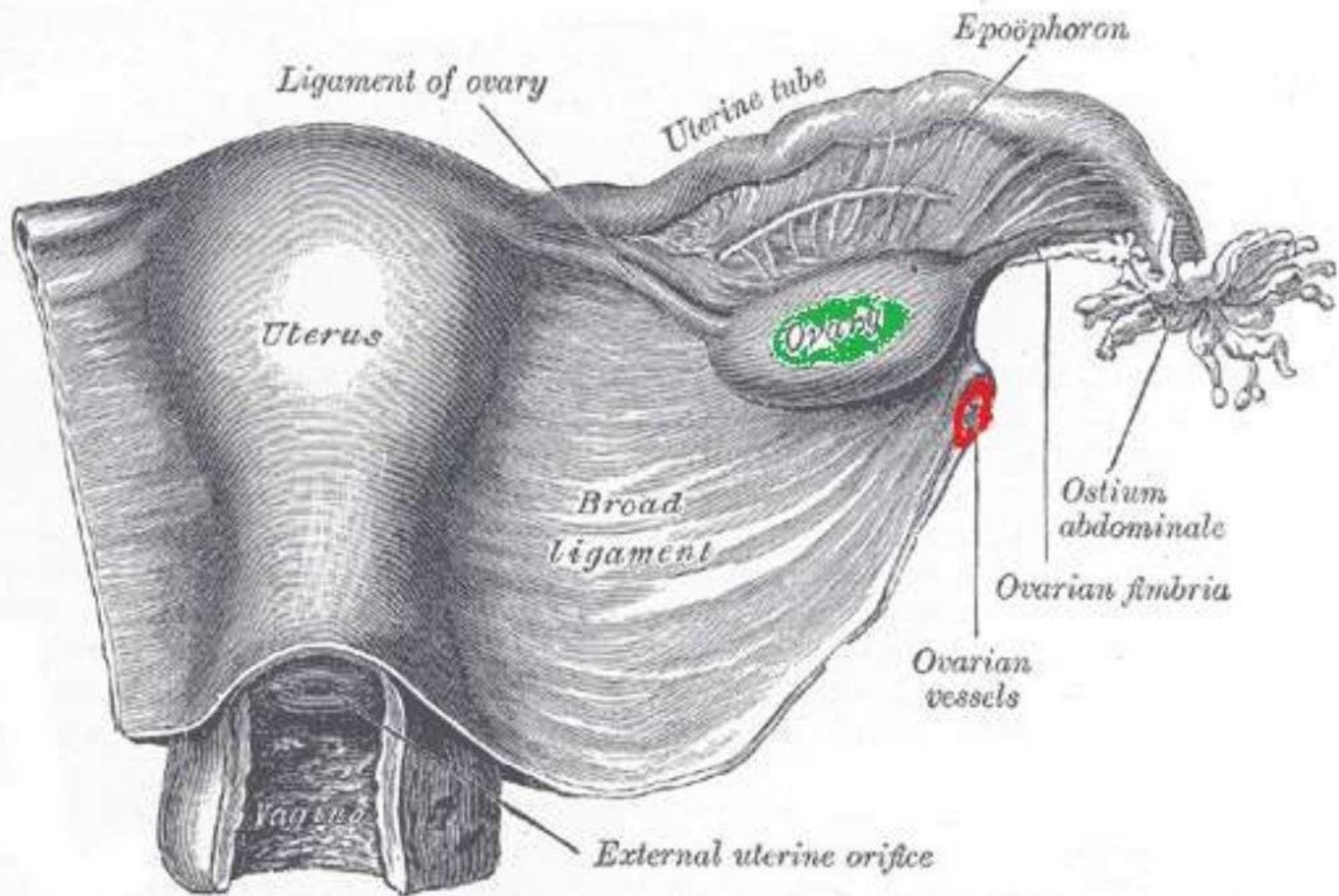
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OVARY

- Ovaries are paired almond-shaped structures situated one on each side of uterus close to the lateral pelvic wall.
- They are attached to the posterior aspect of broad ligament of uterus near its upper limit by a double fold of peritoneum, behind and below the lateral part of uterine tubes.
- This double fold of peritoneum is called mesovarium.



OVARY

- Each ovary is about 3 cm long, 1.5 cm wide and 1 cm thick.
- Each ovary occupies the ovarian fossa, on the lateral pelvic wall, bounded anteriorly by the obliterated umbilical artery and posteriorly by the ureter and internal iliac artery.
- Attached to its upper, tubal extremity, are the ovarian fimbria of the uterine tube. The uterine (inferior) extremity is attached to the lateral angle of the uterus by a rounded ovarian ligament.

SURFACE

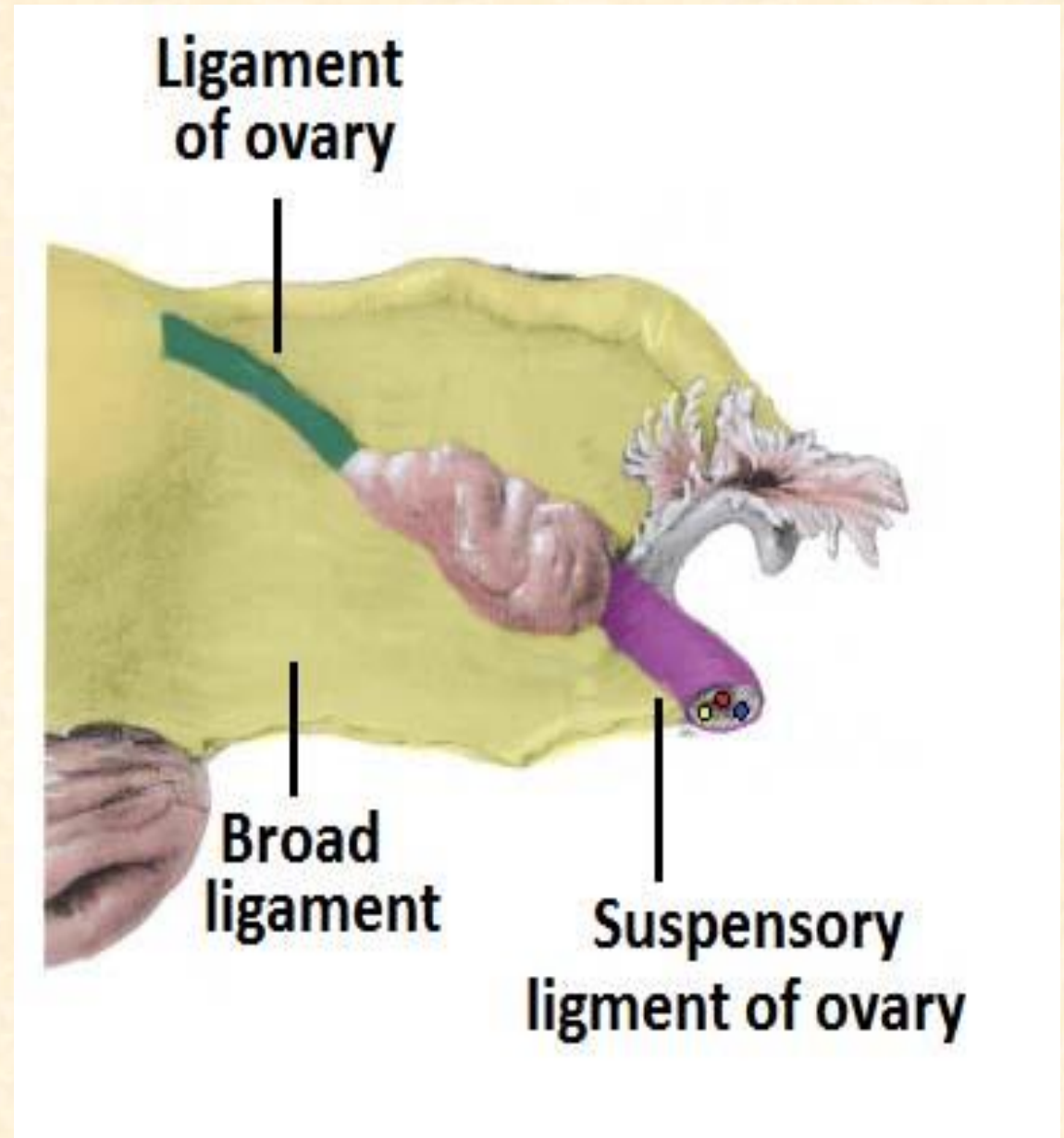
- Ovaries are grayish-pink in the living.
- The surface is smooth before regular ovulation begins, but after the start of reproductive life surface of the ovaries become distorted by the scarring which follows the degeneration of successive corpora lutea.

- Ovaries, like testes, develop from genital ridge.
- In embryonic and early fetal life the ovaries are, like the testes, situated in the lumbar region near the kidneys, but they gradually descend into the lesser pelvis.

LIGAMENTS

Two peritoneal ligaments attach to the ovary;

- **Suspensory ligament of ovary** – fold of peritoneum extending from the **mesovarium** to the **pelvic wall**. Contains neurovascular structures.
- **Ligament of ovary** – extends from the **ovary** to the **fundus** of the uterus. It then continues from the uterus to the connective tissue of the labium majus, as **the round ligament of uterus**.



THE MAJOR LIGAMENTS OF THE OVARY

Vessels

- The ovaries and uterine tubes are supplied by the ovarian arteries, which are branches of the abdominal aorta.
- The **veins** emerge from the ovarian hila as a pampiniform plexus, which form the ovarian veins.
- The right ovarian vein opens in inferior vena cava and left drains into left renal vein.

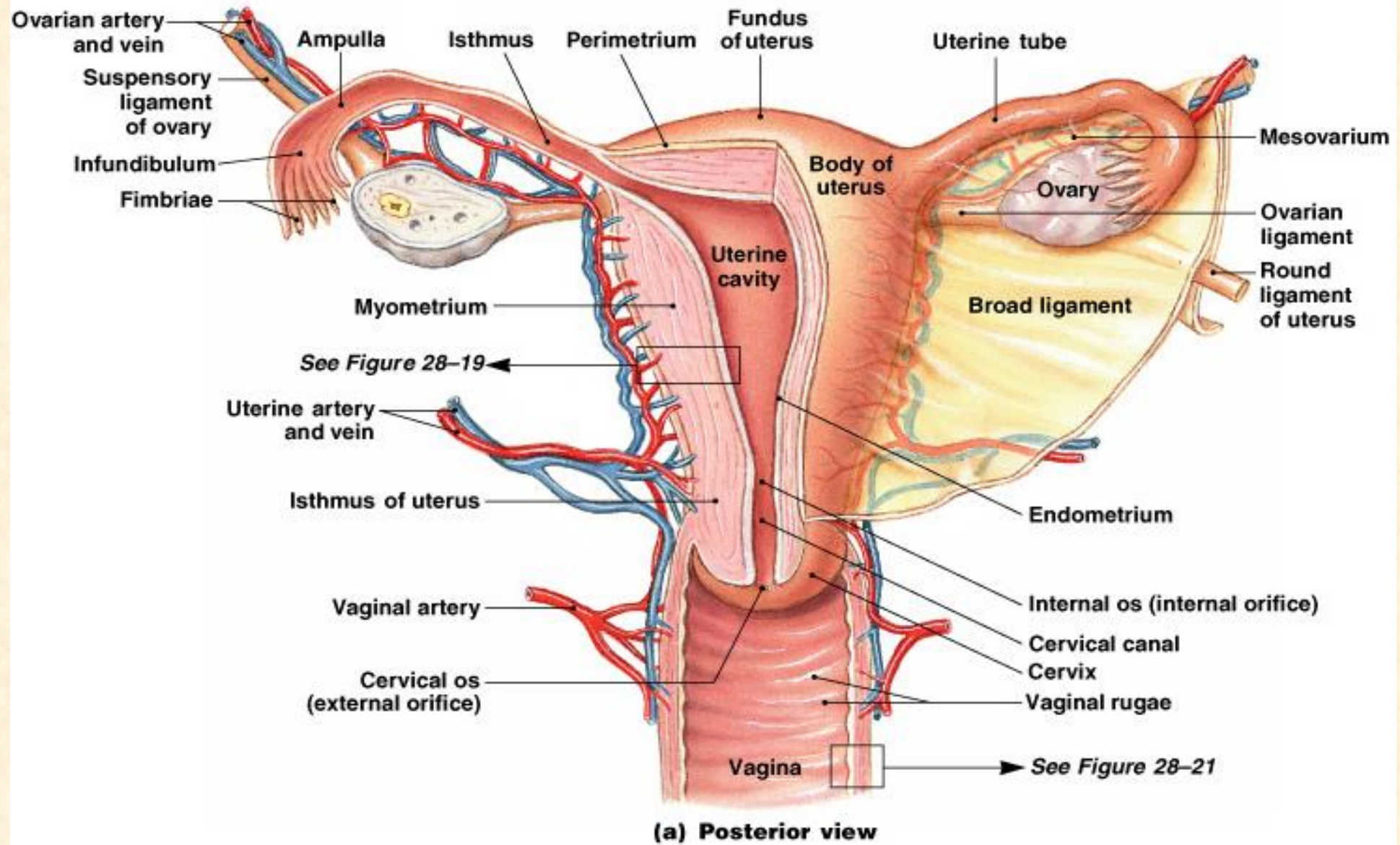
NEUROVASCULAR SUPPLY

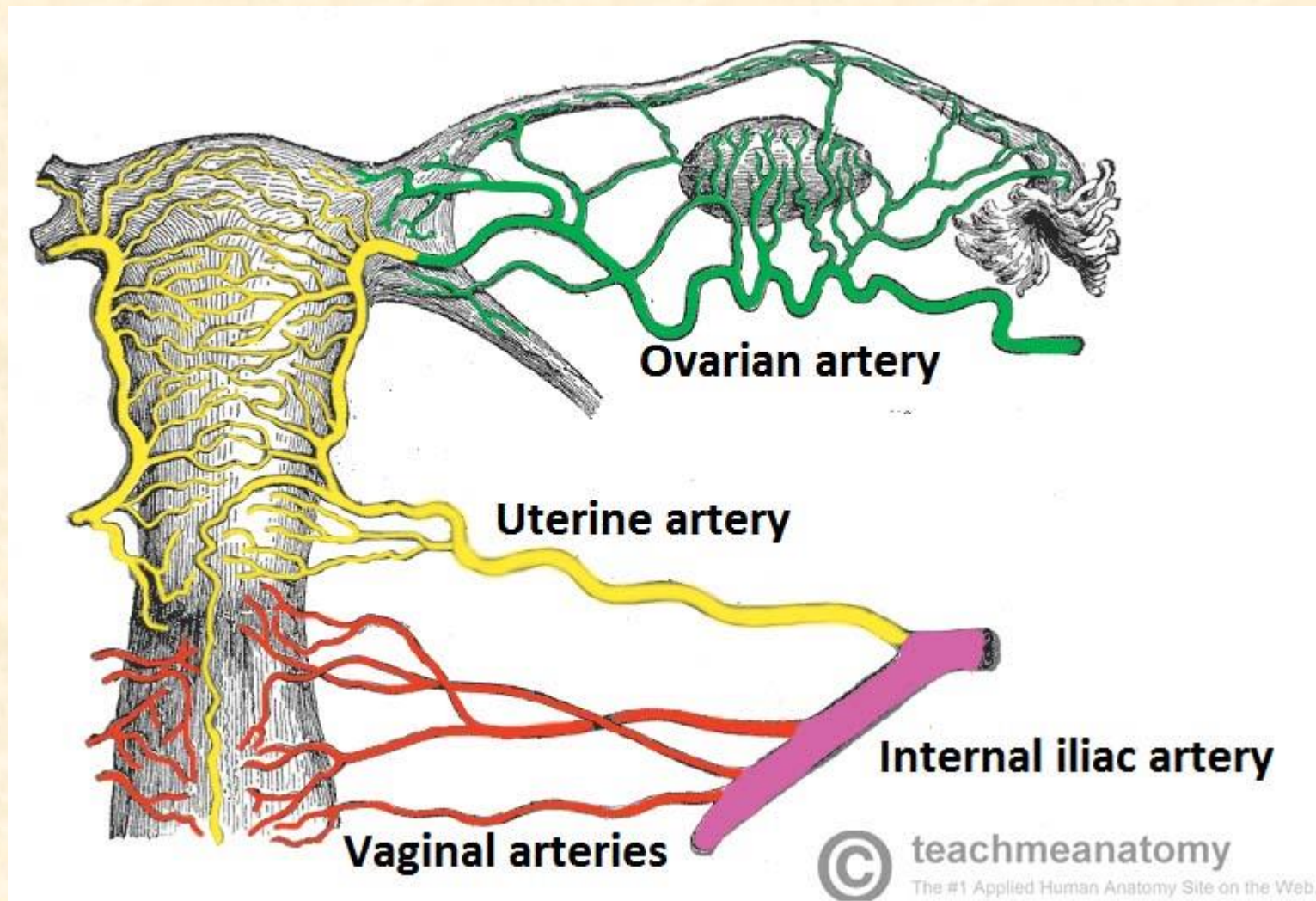
- The main arterial supply to the ovary is via the paired **ovarian arteries**. These arise directly from the abdominal aorta (inferior the renal arteries). There is also a contribution from the uterine arteries.
- Venous drainage is achieved by paired ovarian veins. The left ovarian vein drains into the left renal vein, and the right ovarian vein drains directly into the **inferior vena cava**.
- The ovaries receive sympathetic and parasympathetic innervation from the ovarian and uterine (pelvic) plexuses, respectively. The nerves reach the ovaries via the **suspensory ligament of the ovary**, to enter the ovary at the hilum.

LYMPHATIC SUPPLY

- Lymph from the ovaries drains into the **para-aortic nodes**.

Uterus





Posterior view of the arterial supply to the female reproductive tract.

CLINICAL RELEVANCE

DISORDERS OF THE OVARIES

- **Ovarian cysts** are fluid-filled masses that may develop in the ovary. They are most commonly derived from ovarian follicles, reaching approximately 2-2.5 cm. Most ovarian cysts are benign and develop during a woman's child-bearing years, however, some larger cysts may cause problems such as bleeding and pain and require surgical removal.
- **Polycystic ovaries** are characterized by hormone dysfunction and multiple (over 10) ovarian cysts. It is associated with infertility.
- **Ovarian tumours** are another serious disorder. The most common cancers arise from epithelial components or germ cells. 90% of ovarian cancers are derived from epithelium, these are termed **ovarian adenocarcinomas**. Most germ cell tumours are **teratomas**, which comprise cells from all 3 germ cell layers and are usually benign.



The End