



Anatomy of The Female Reproductive System

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Lecture Outlines

- 1. Introduction**
- 2. Anatomy**
- 3. Pregnancy diagnosis**

Female Reproductive system



Breeding

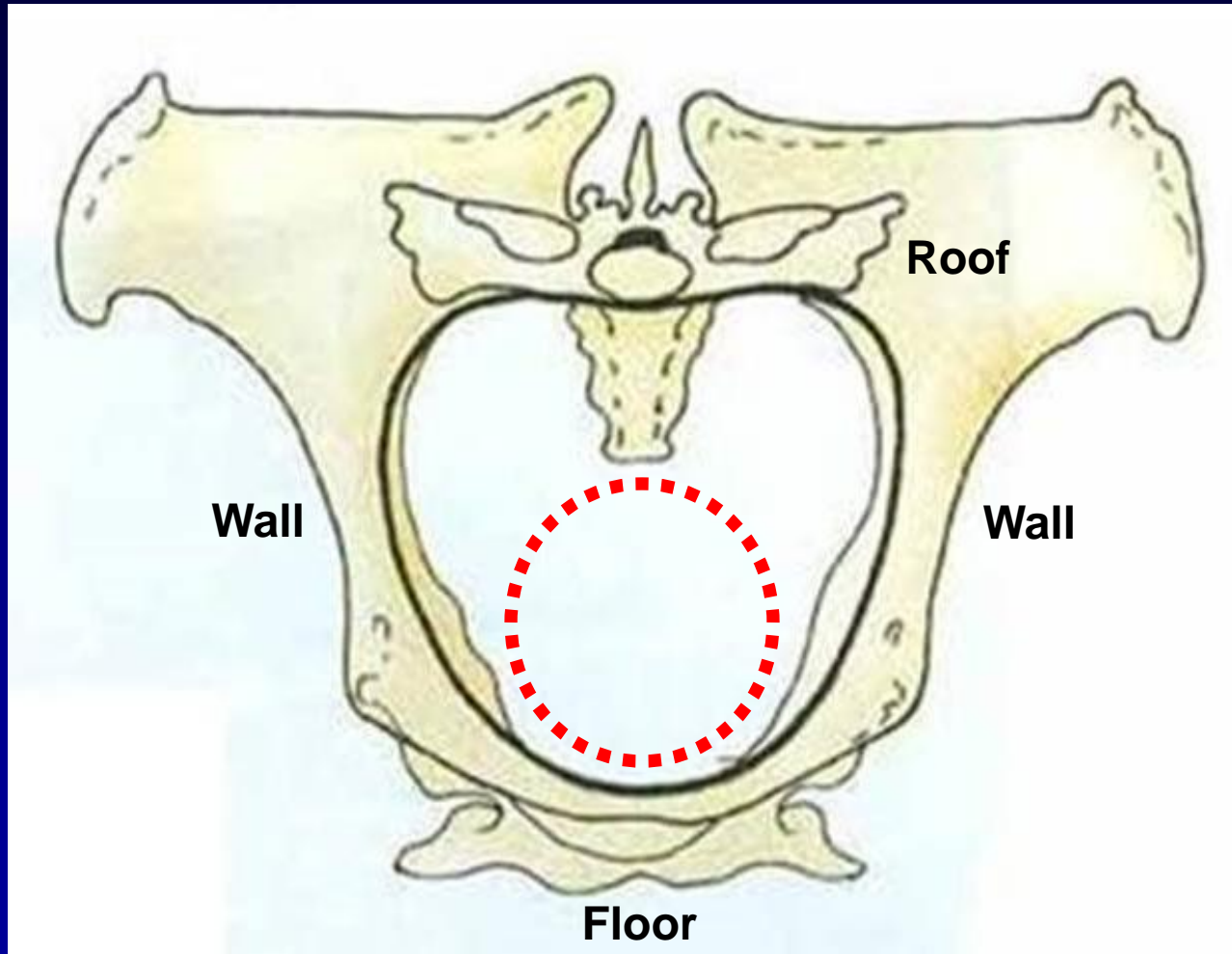
Length of Pregnancy

- Mare (360days)= 11-12 month
- Cow (282days) = 9 month and 12 days
- sheep and goat (150 days) = 5 month

Three Basic Functions for the Female Reproductive System

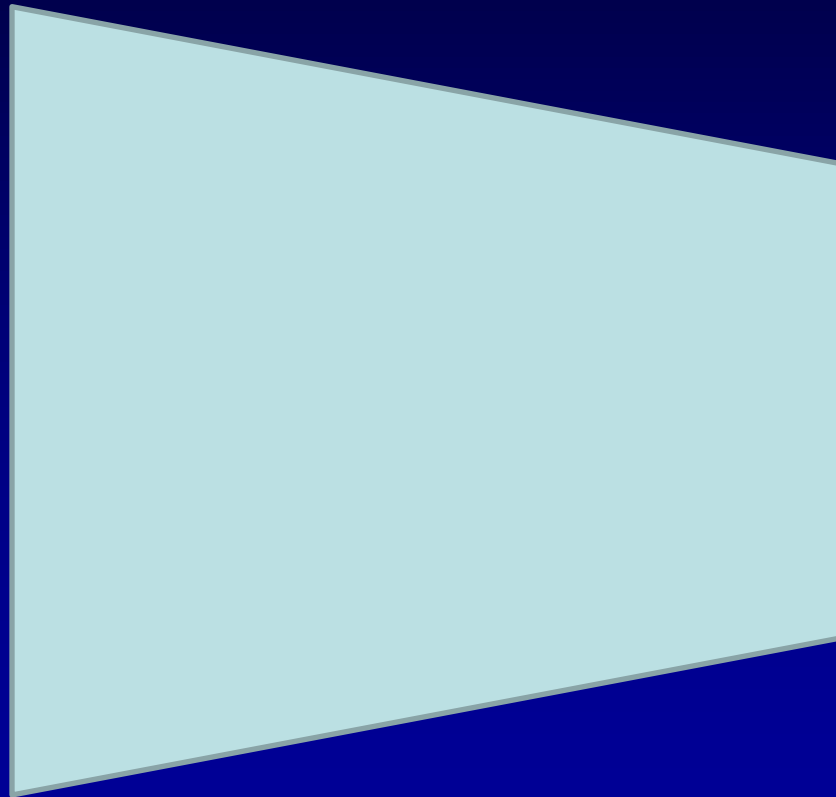
- 1. Production of ova /eggs**
- 2. Provides suitable environment for fertilization**
- 3. Provides a place for fetal development**

The Pelvic Cavity



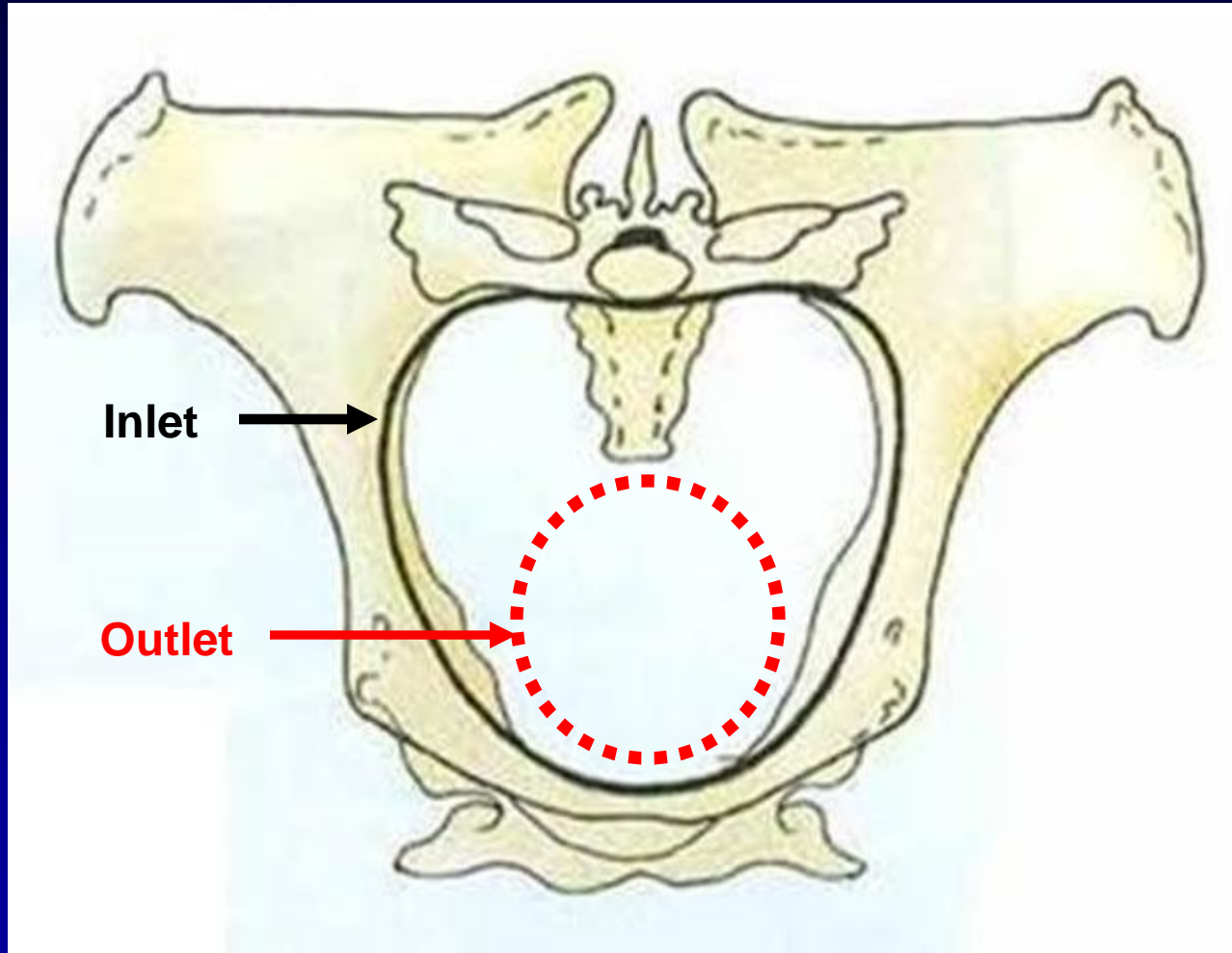
Pelvic Cavity

Inlet

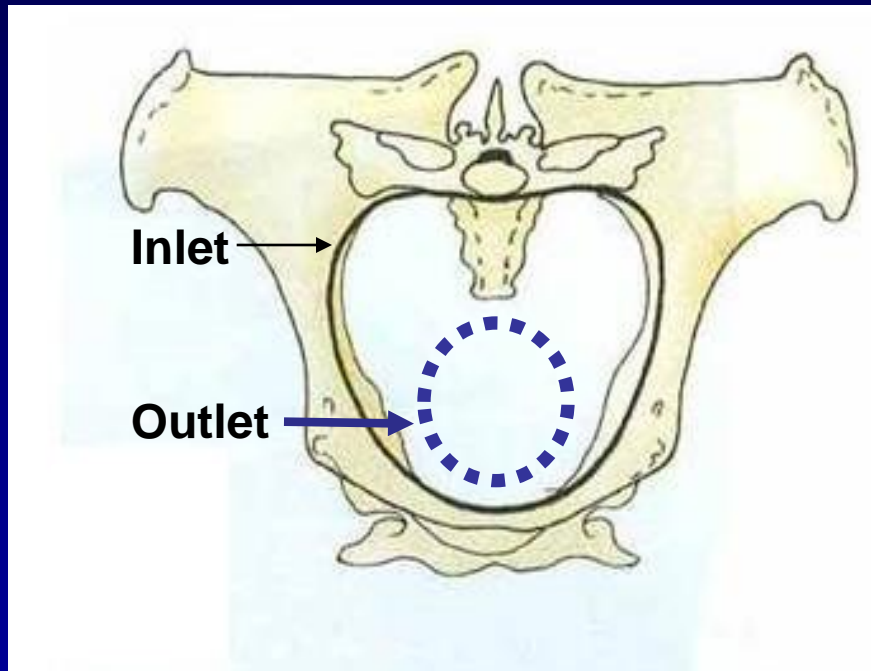


Outlet

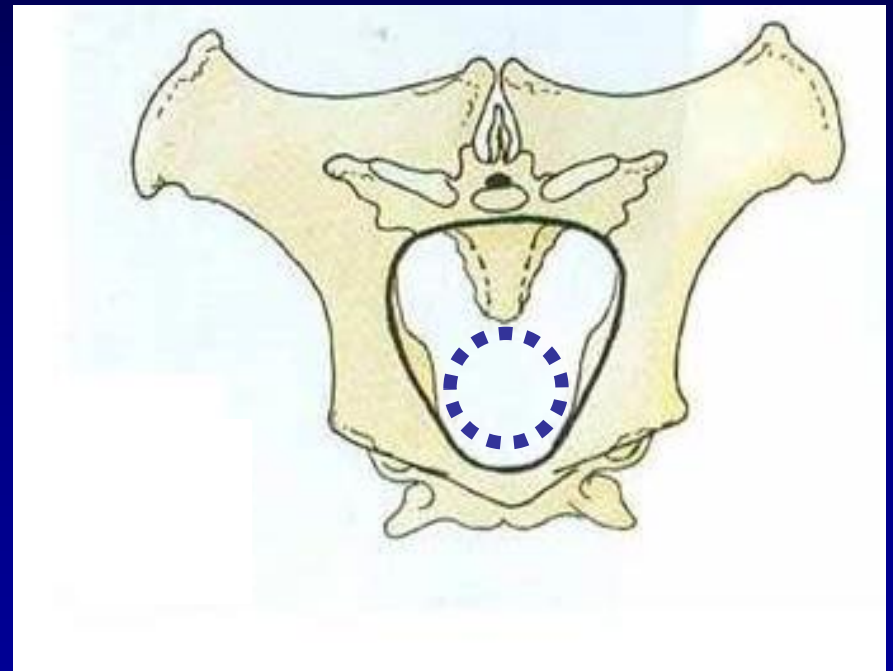
The Pelvic Cavity



The Pelvic Cavity

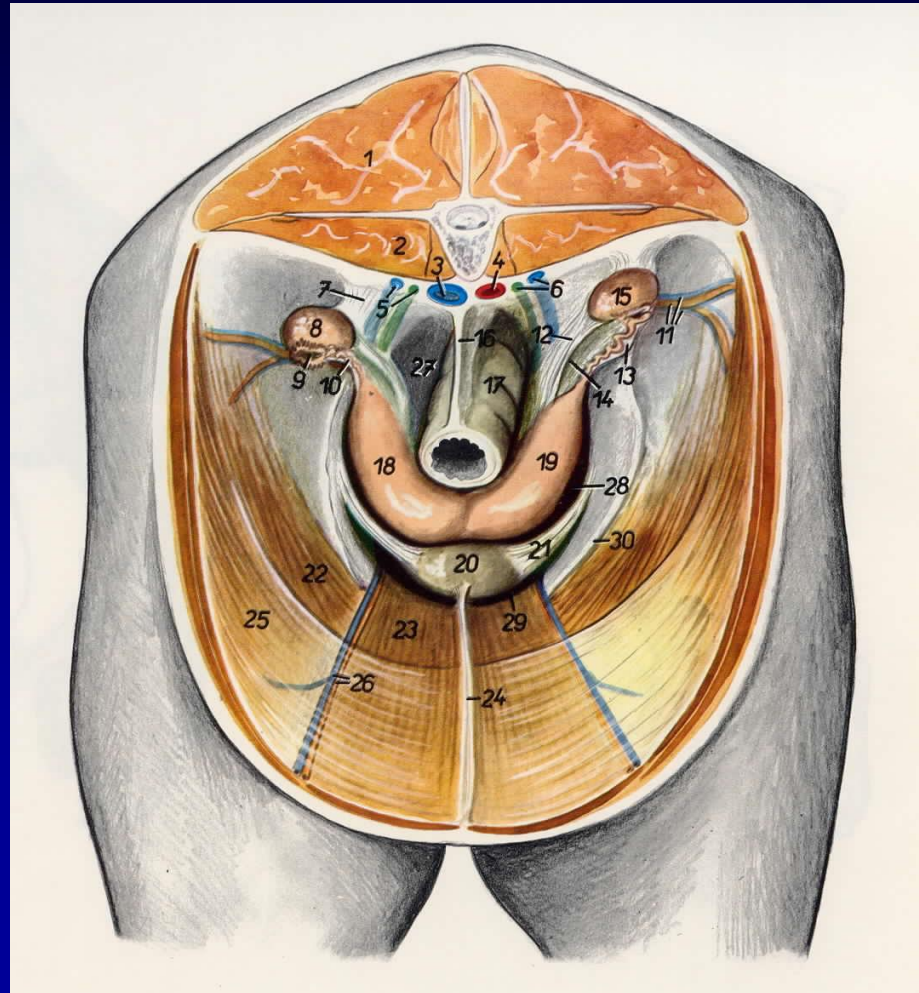


Female

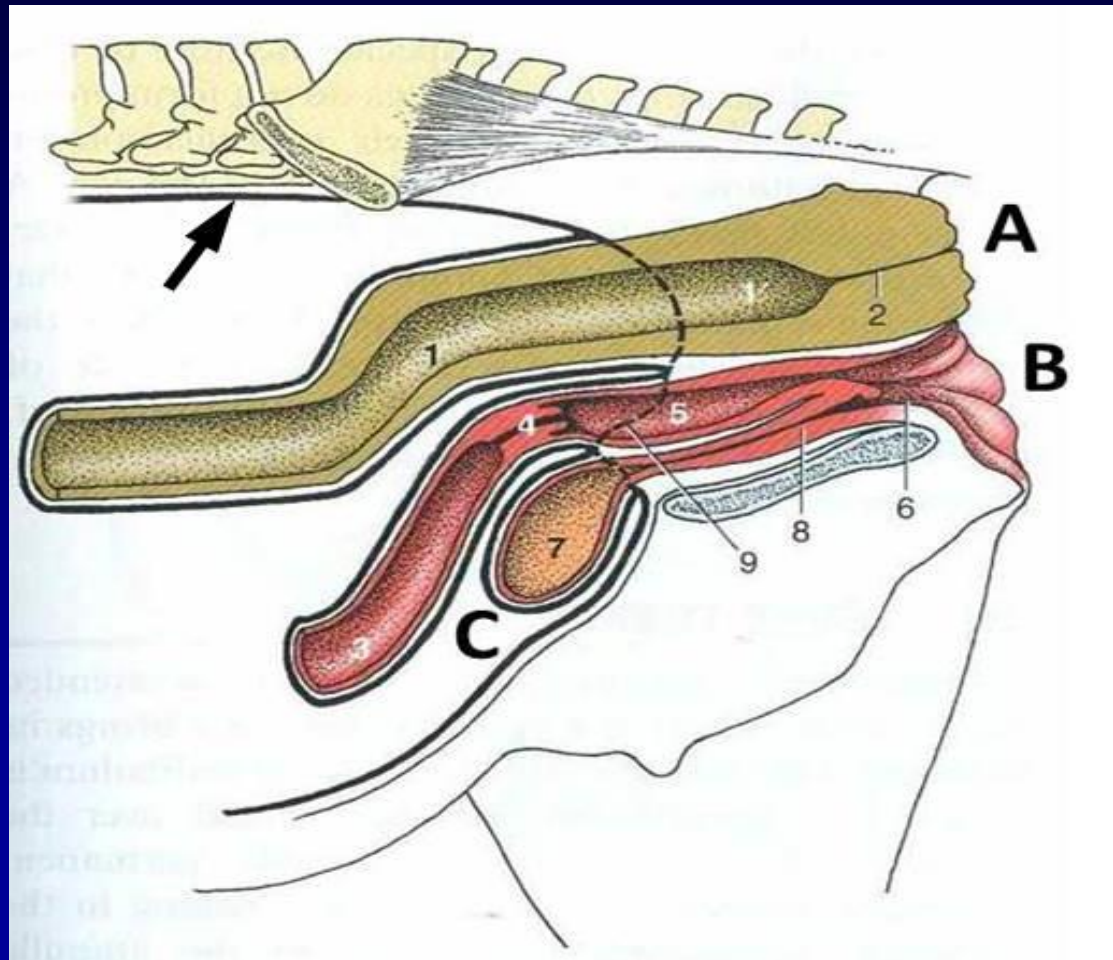


Male

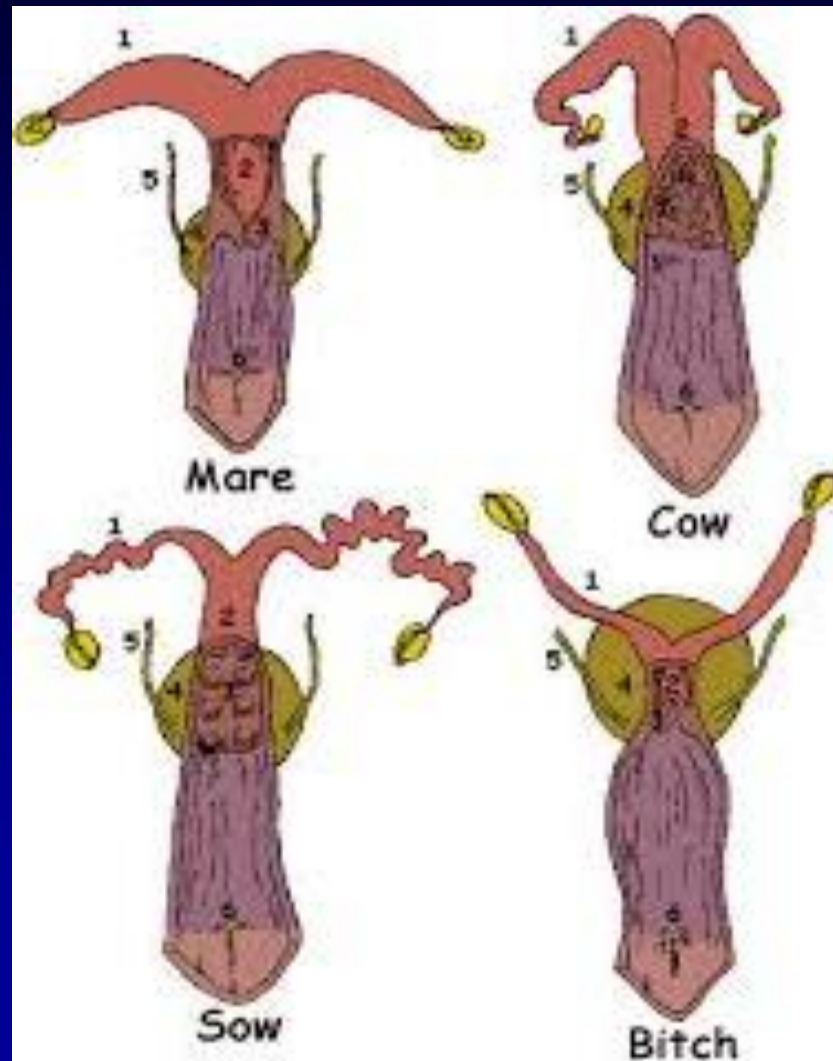
Pelvic Organs - Female



Pelvic Organs - Female

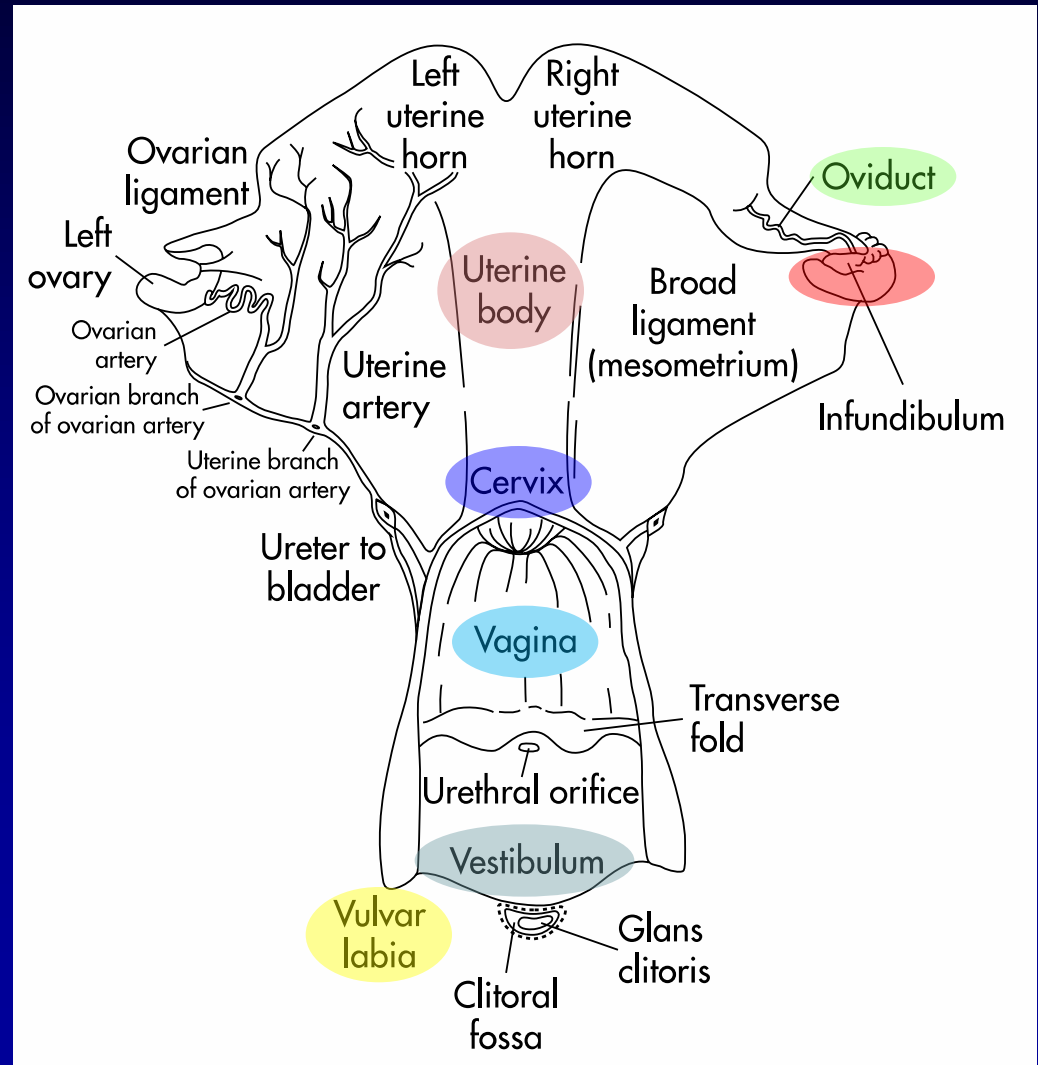


Female Reproductive system

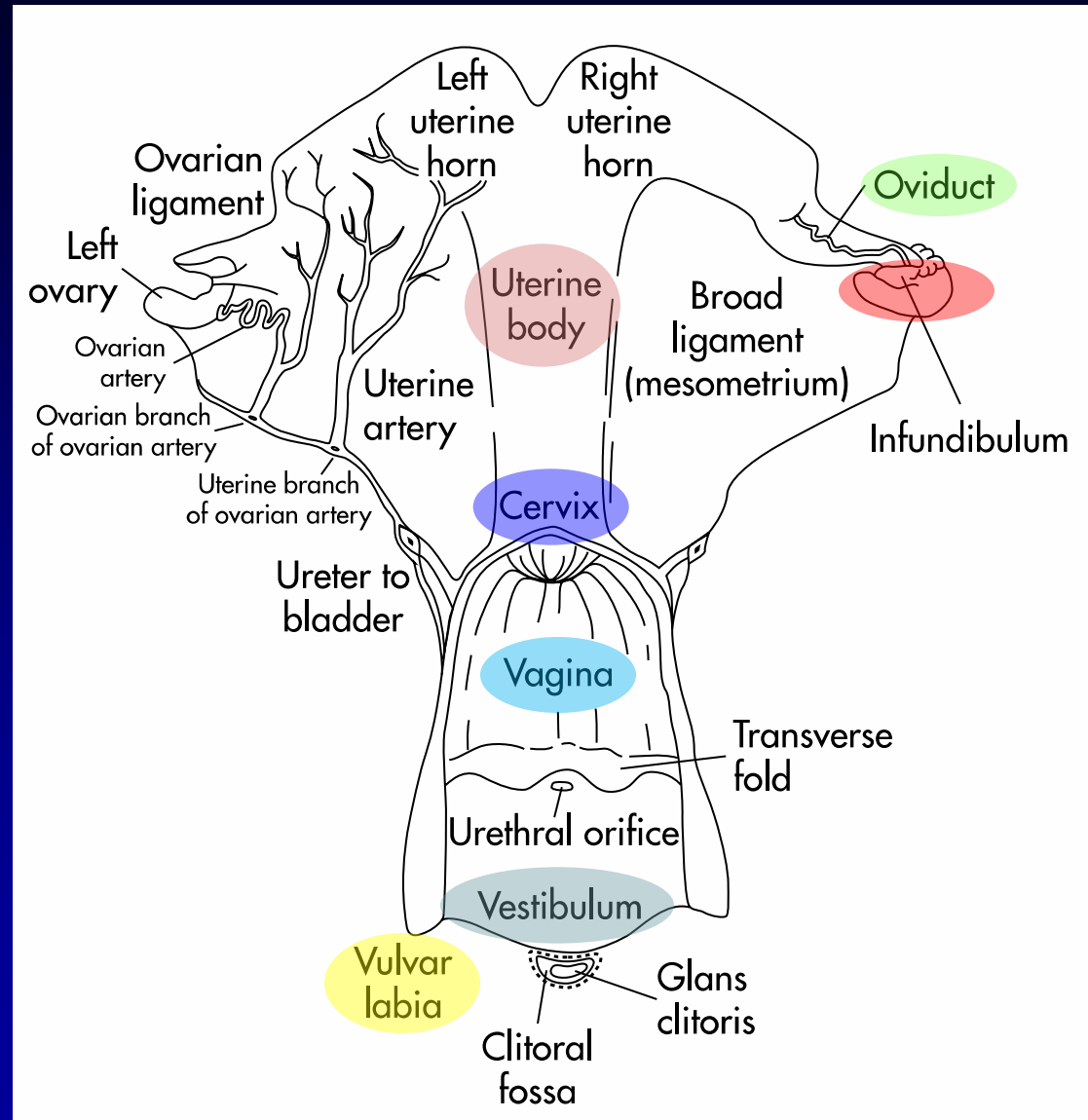


Structures of The Mare Genital Tract

1. Ovaries
2. Oviducts
3. Uterus
4. Cervix
5. Vagina
6. Vestibule
7. Vulva



Structures of The Mare Genital Tract



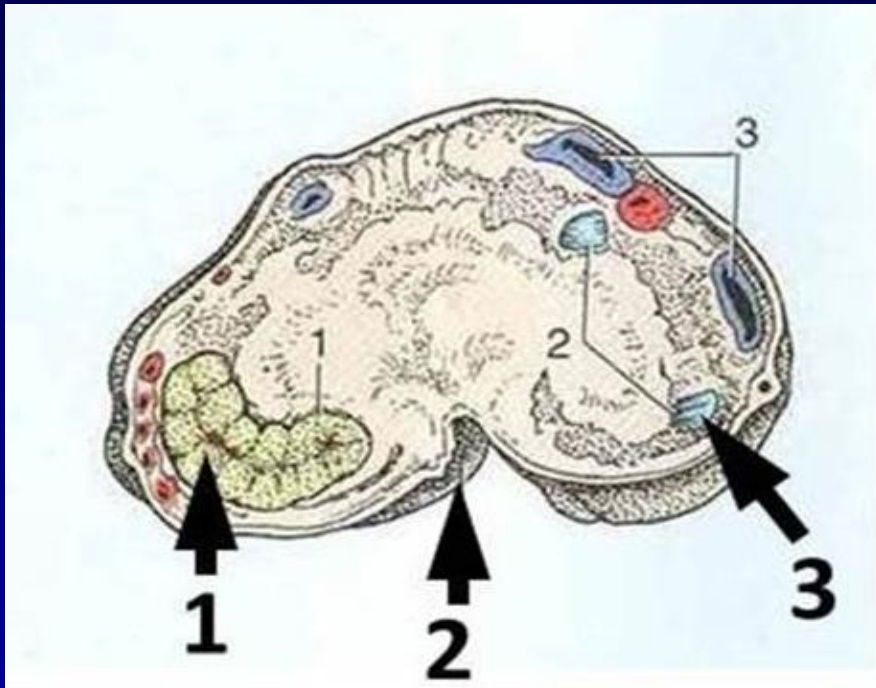
The Ovary

- **6-8 cm Length, 3-4 cm Height**
- **Dorsal Abdomen**
- **Ventral to the 4th or 5th Lumbar Vertebra**
- **Caudal to the Kidneys**
- **Attached Dorsally, Free Ventrally**

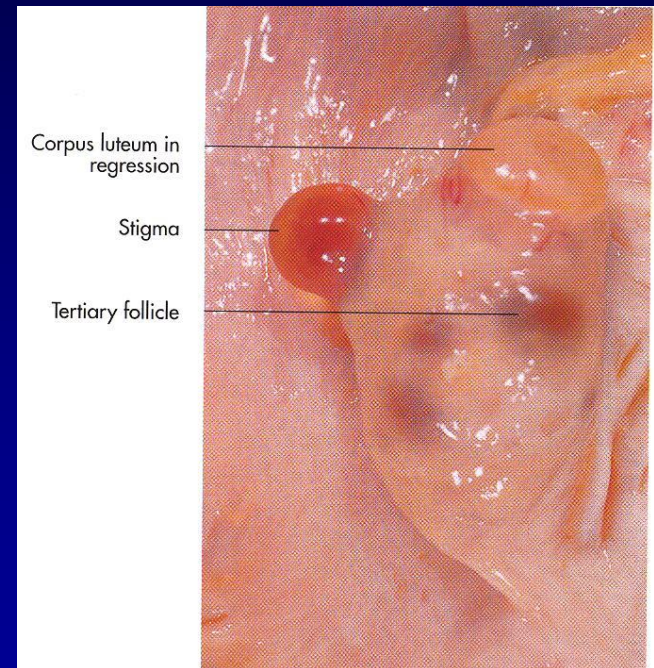
The Ovary

- **Kidney Bean Shape**
- **Medulla and Cortex**
- **The Ovulation Fossa**
- **Corpus Luteum (Not Palpable)**

The Ovary



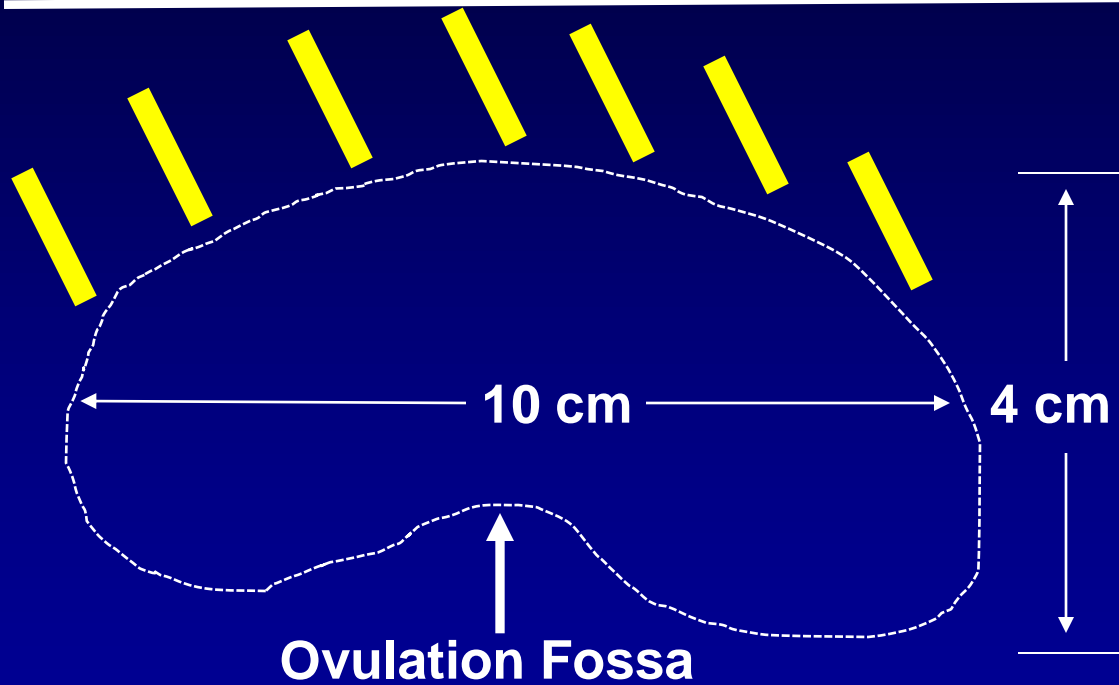
Mare



Cow

The Ovary

Dorsal (attached)

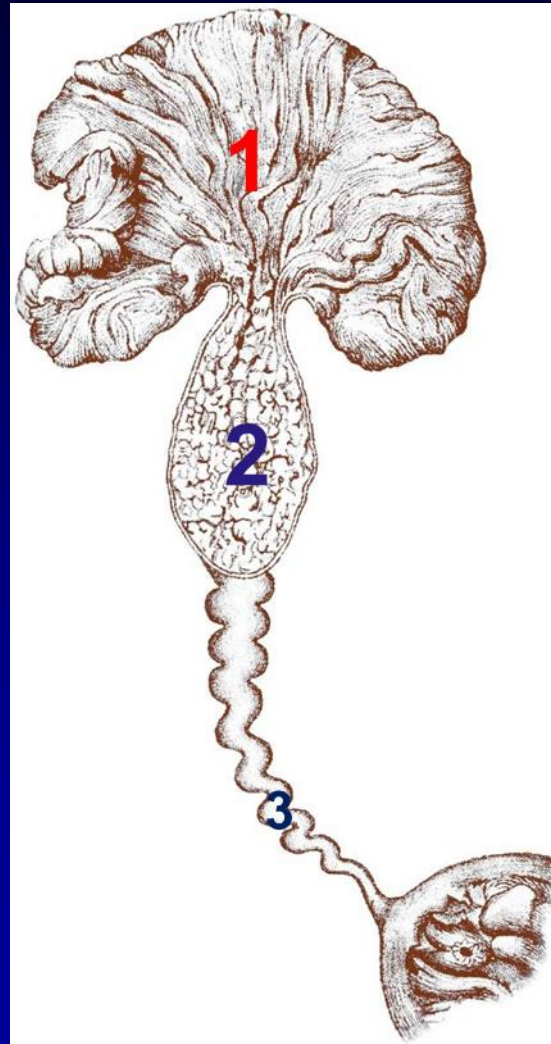


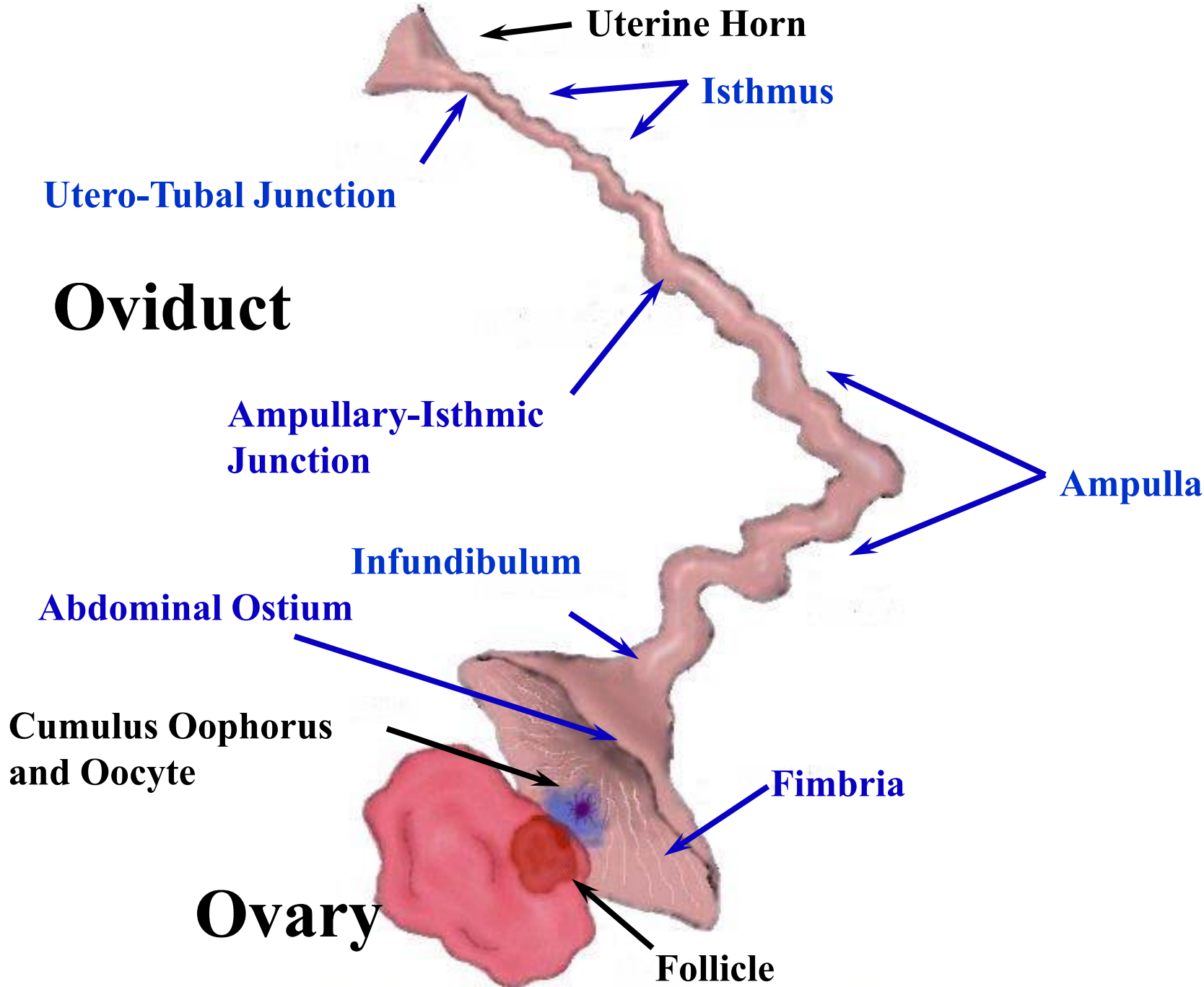
Ventral (free)

The Oviduct

- **20-30 cm in Length**
- **Three parts:**
 - **Infundibulum, Ampulla and Isthmus**
- **Functions:**
 - **Transports Oocyte**
 - **Site of Fertilization**
- **During Estrus:**
 - **Isthmus Contracts to Propel Sperm**
 - **Oviductal Papilla Contains Uterotubal Junction which helps in Sperm Selection**

The Oviduct

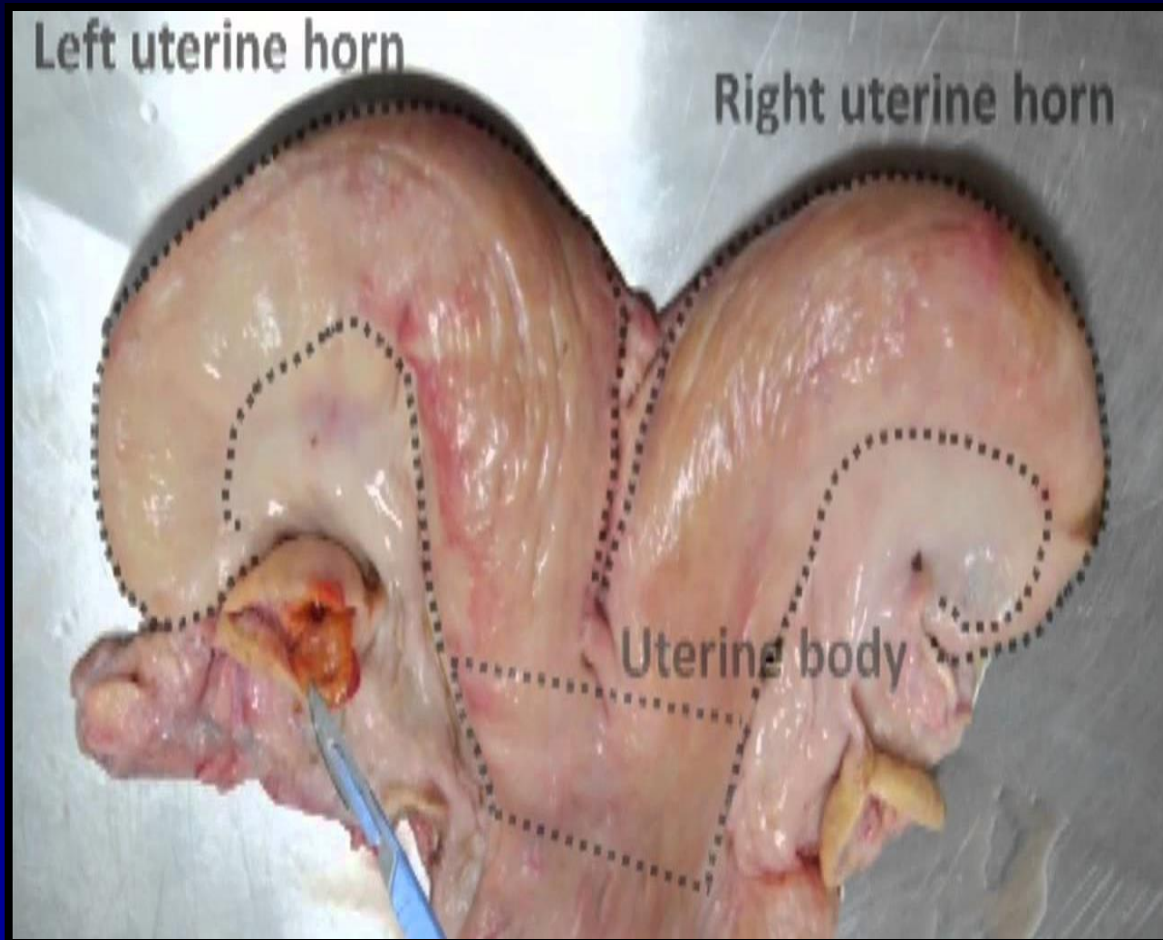




The Uterus

- **Two Horns and a Body**
- **Uterine horns Coiled like a rams'**
- **Suspended in The Pelvic Cavity by The Broad Ligament Dorsally**

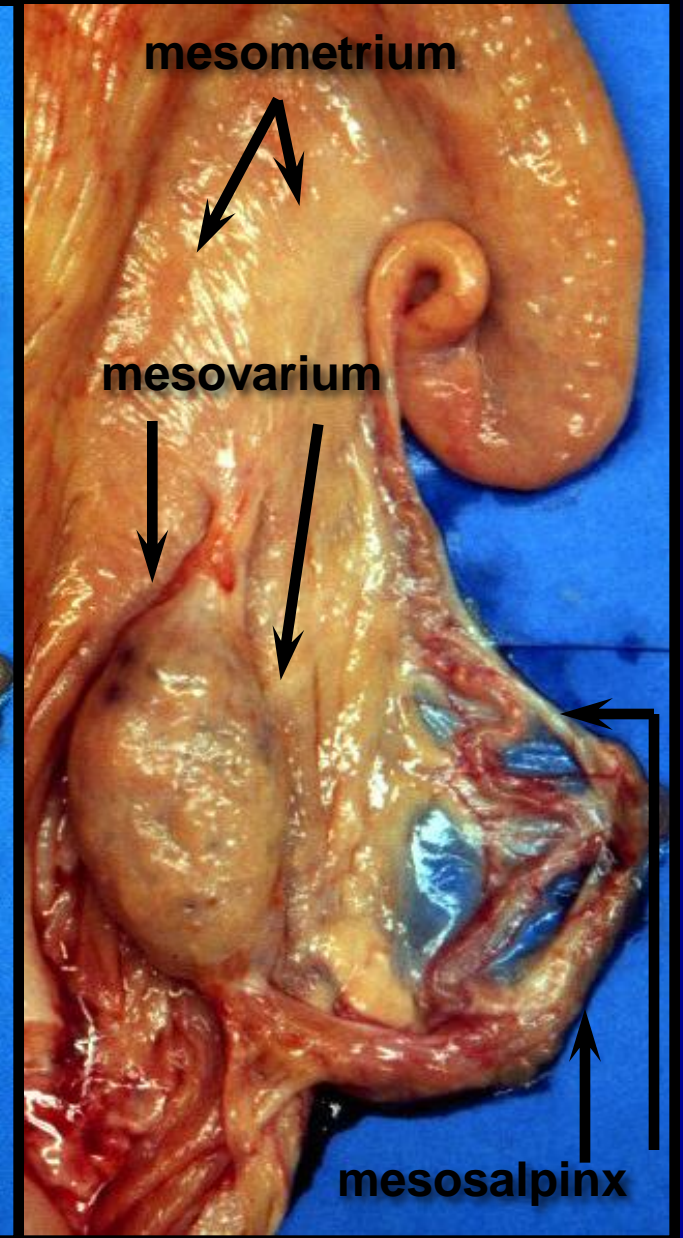
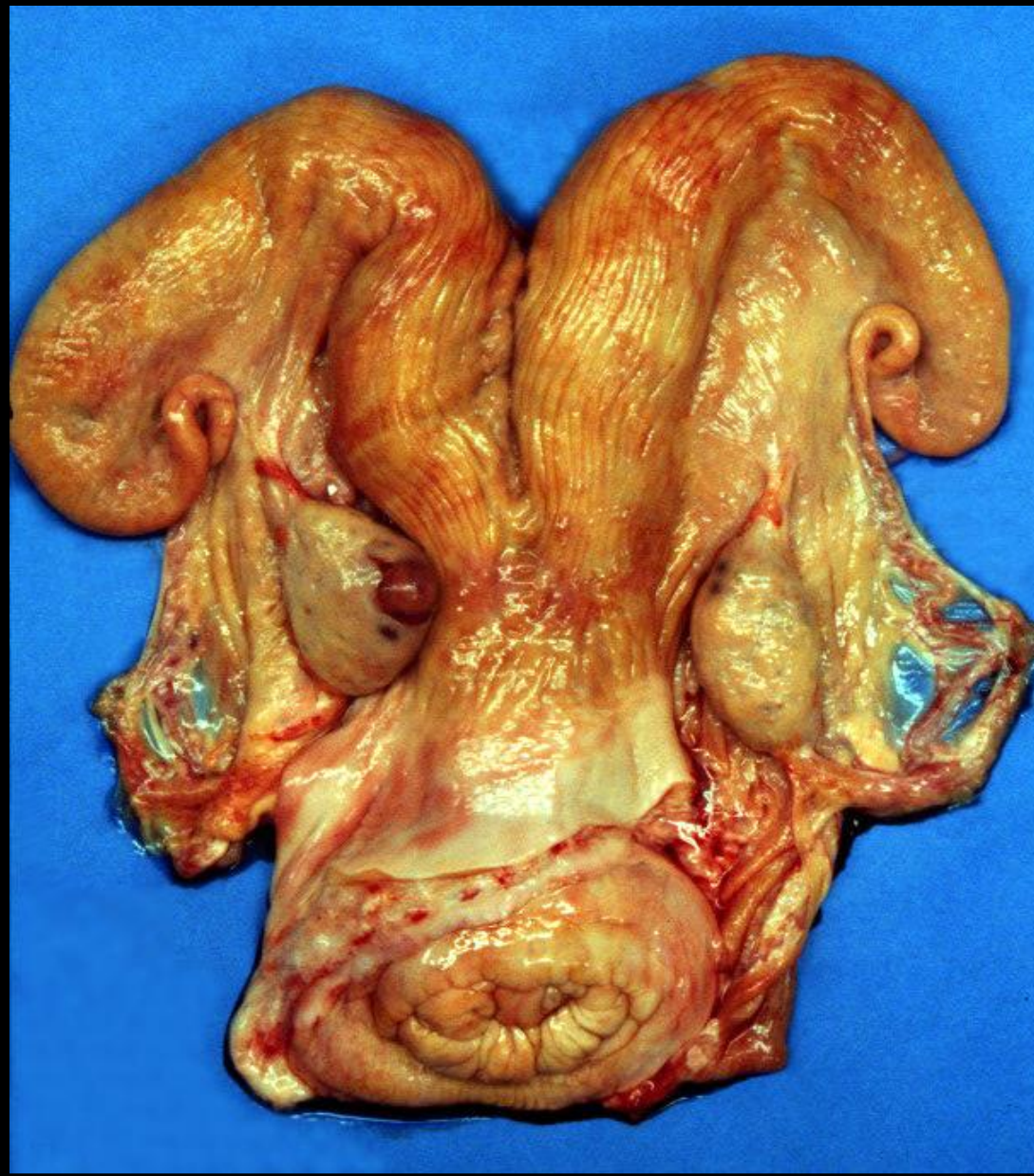
The Uterus



Broad Ligament

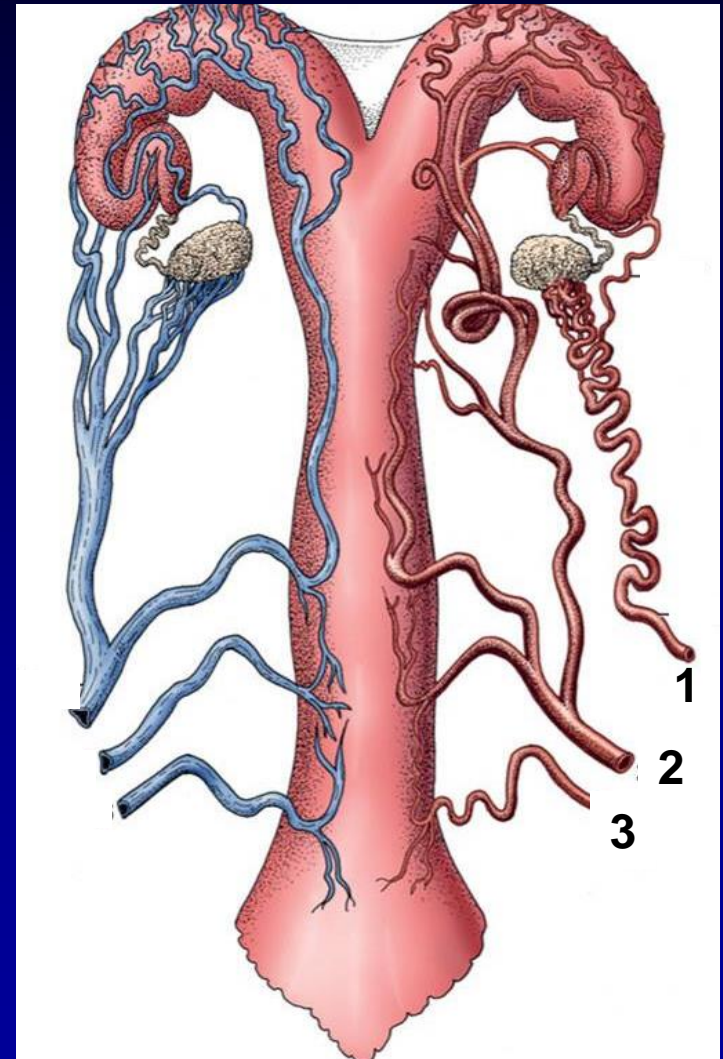
- **Mesometrium** - the mesentery of the uterus
the largest portion of the broad ligament
- **Mesosalpinx**- the mesentery of the uterine
tube
- **Mesoovarium** - the mesentery of the ovaries

Broad Ligament

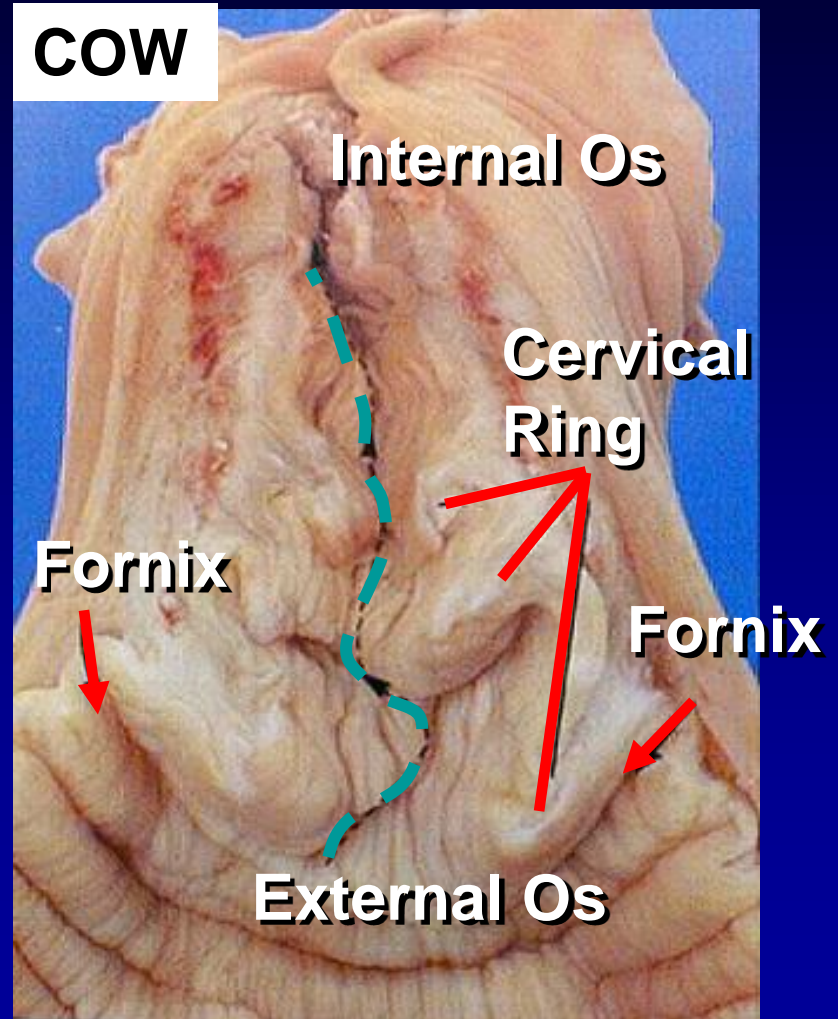
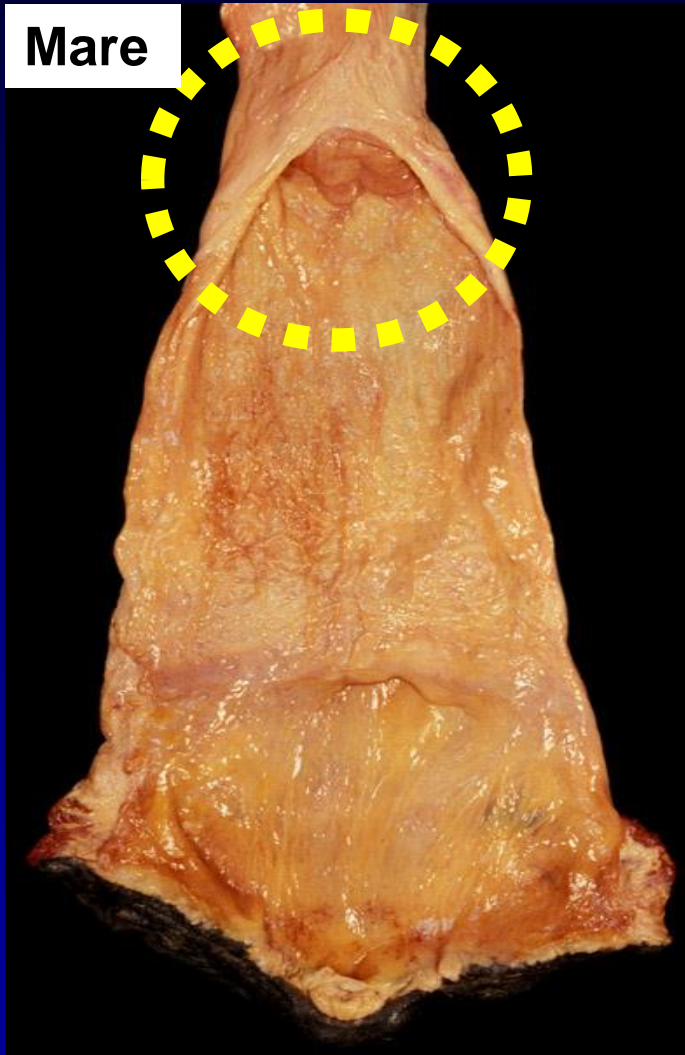


The Uterus: Blood Supply

1. Uterine branch from ovarian artery (aorta)
2. Uterine artery (middle) from Internal iliac artery
3. Uterine branch from vaginal artery (internal peduncel artery)



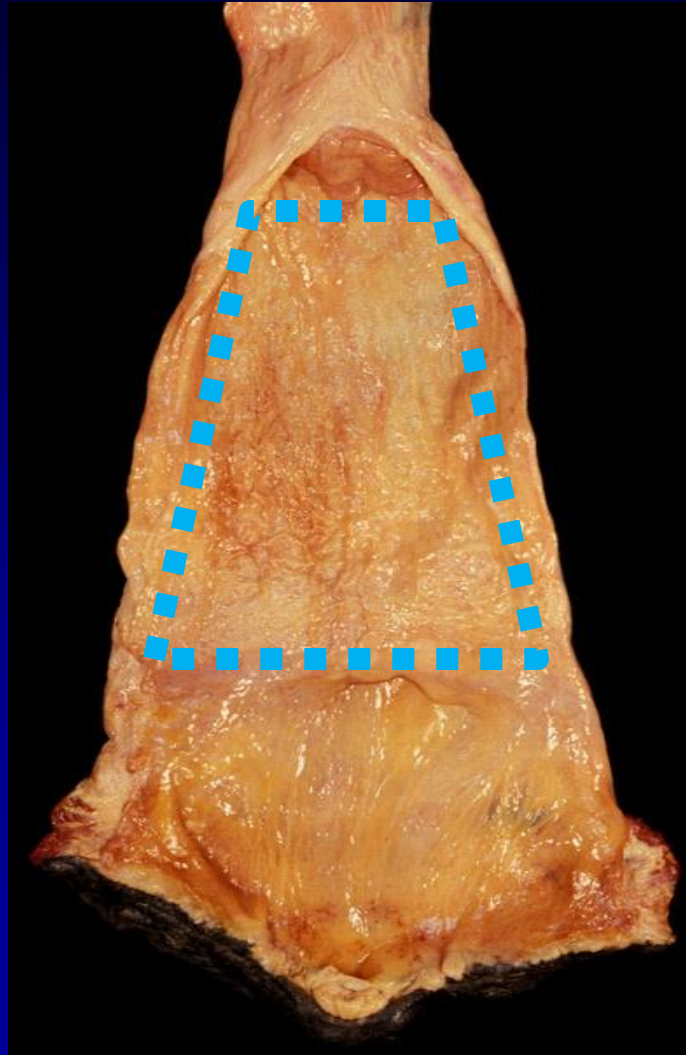
The Cervix



The Cervix

- **5-7.5 cm Long / 2-4 cm Wide**
- **Thick Palpable Muscle**
- **Elastic Fibers:**
 - **Contraction / Expansion**
- **Functions:**
 - **Lubrication During Estrous**
 - **A Barrier During Pregnancy**
 - **Production of Mucus (Plug)**

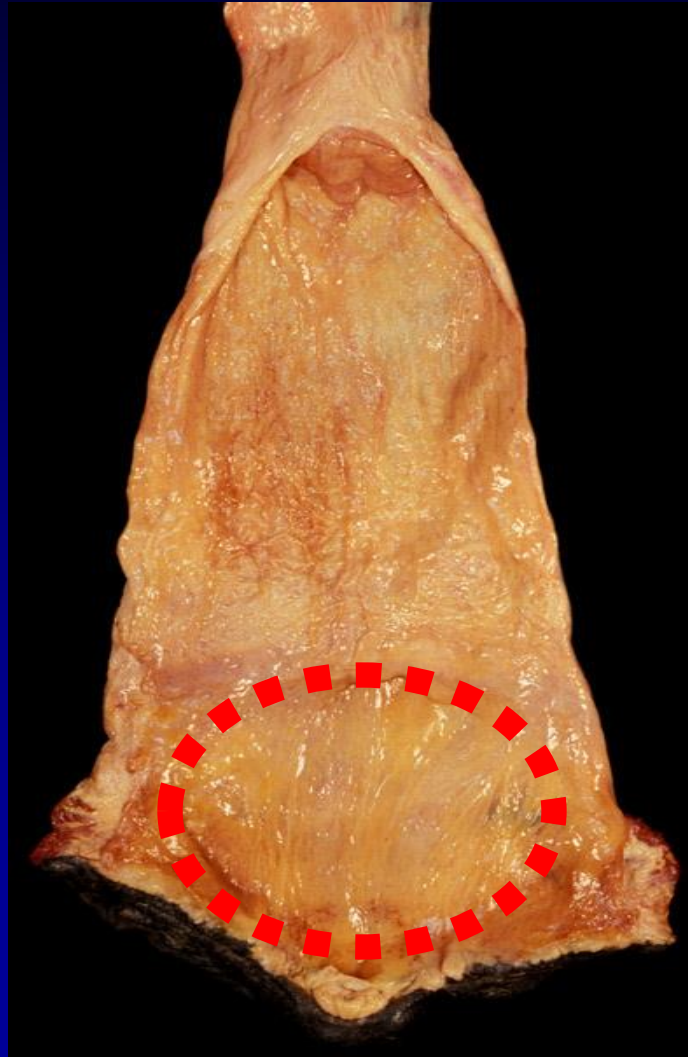
The Vagina



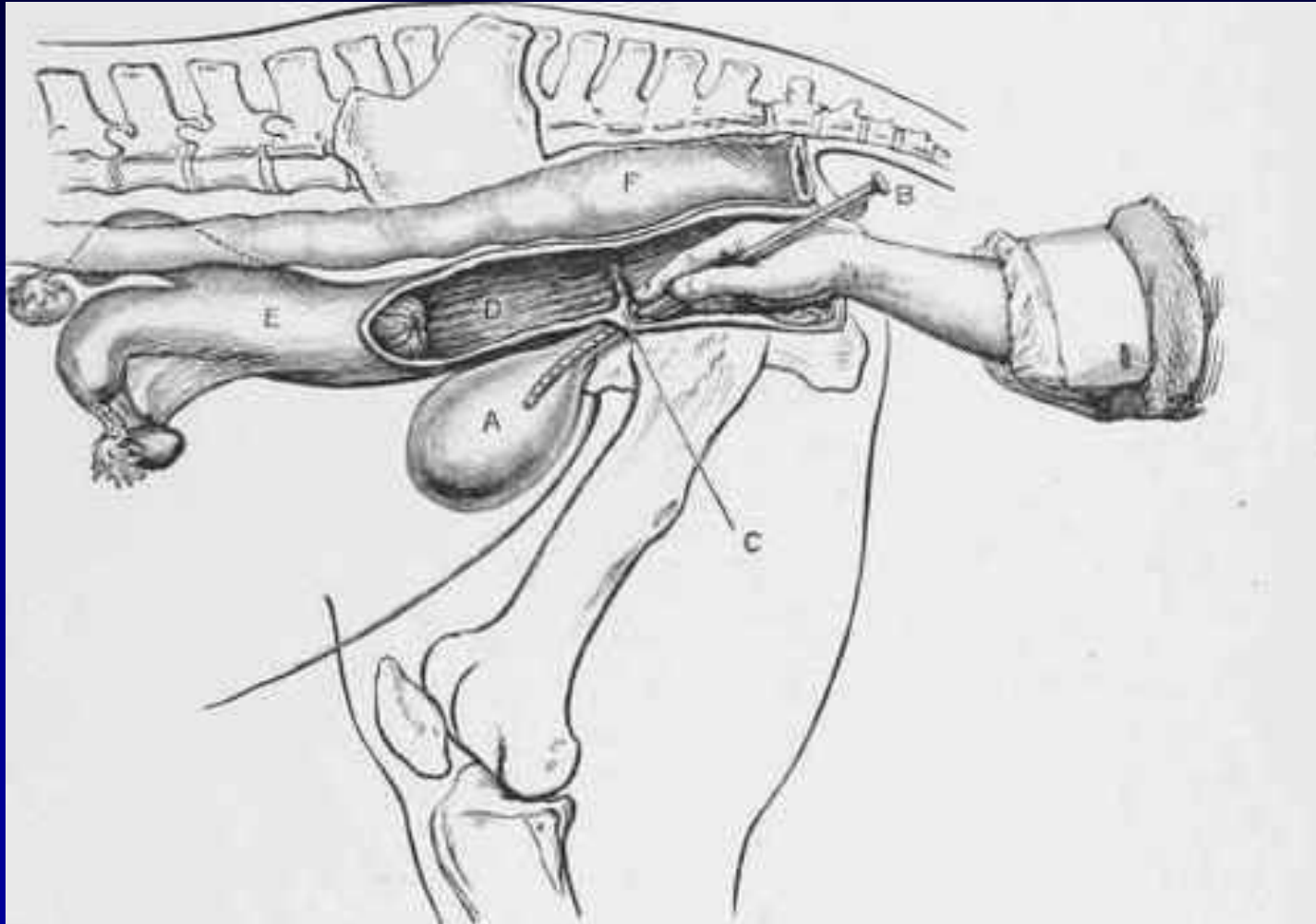
The Vagina

- **15-20 cm Long**
- **Anterior Portion**
 - **Peritoneal Cavity**
- **Posterior Portion**
 - **Retroperitoneal**
- **No Glandular Structures**
- **Collapsed :**
 - **Breeding / Parturition**

The Vestibule



The Junction Between the Vagina and The Vestibule: The Urethral Opening



The Vulva

- **12-15 cm Long**
- **5-7 cm Ventral to Anus**
- **Two Commissures**
 - Ventral Rounded
 - Dorsal Pointed
- **Clitoris is Cranial to the Ventral**

Vulva and Clitoris



Vulva: Normal Conformation



Pregnancy diagnosis

- Rectal palpation
- Hormone measurements
- Ultrasound examination

Rectal Palpation



Mare



COW

Ultrasound examination



Mare



COW

THE END

