

November 15, 2023 - Dr. Krebs ([claudia.krebs@ubc.ca](mailto:claudia.krebs@ubc.ca))

### **Objectives:**

- Describe the orientation and location of the skeletal and muscular elements of the pelvis on a full skeleton
- Describe the main blood supply to the pelvic viscera
- Describe the pelvic viscera and their peritoneal covering in both the male and female

**Use the modules and 3D models to help identify checklist structures:**

### **Bones:**

Coccyx

Sacrum

Ala

Facet for sacroiliac joint

Hip (pelvic) bone

Ischiopubic (pubic) arch

Obturator foramen

Ilium:

- Anterior superior iliac spine
- Crest

Ischium:

- Spine
- Tuberosity

Pubis:

- Tubercle
- Crest
- Pubic symphysis

*Anterior view of android pelvis*

### **Be able to define:**

- Greater sciatic foramen
- Lesser sciatic foramen
- Obturator canal

### **Muscles:**

Obturator internus

Piriformis

Levator ani

### **Ligaments:**

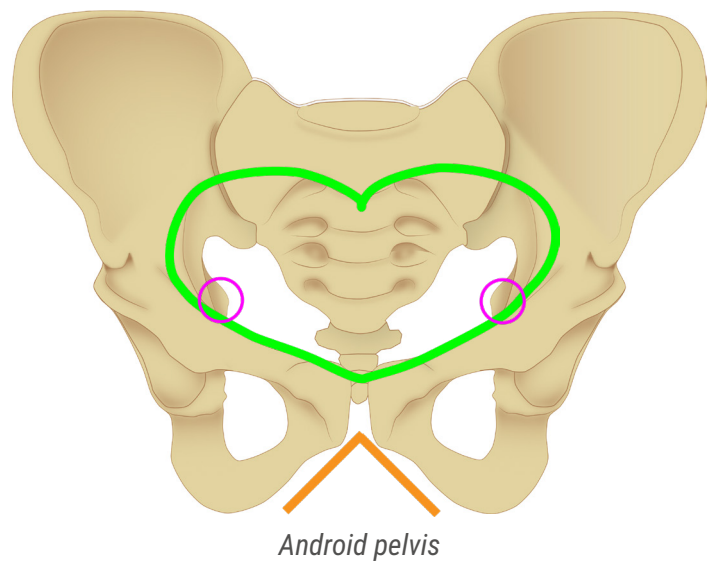
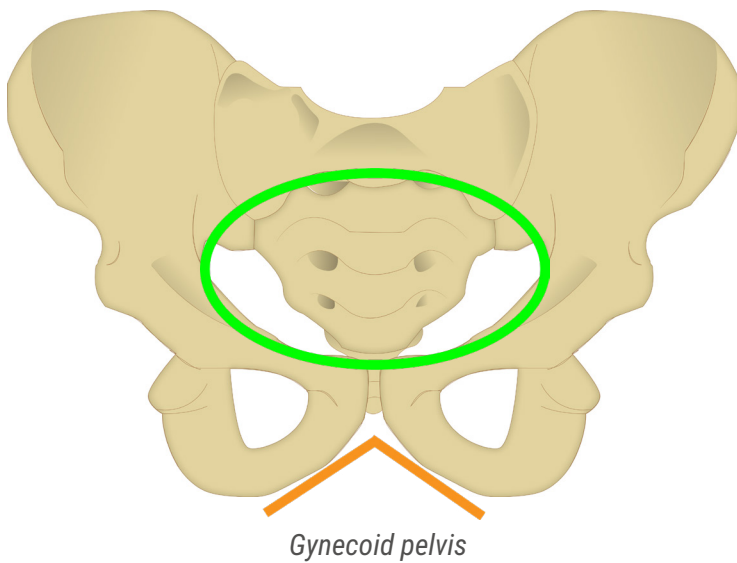
Sacrospinous

Sacrospinous

Sacrospinous

*Lateral view of pelvis*

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Feature	GYNECOID	ANDROID
<b>Pelvic inlet shape</b>	Circular	Heart-shaped
<b>Angle of pubic arch</b>	Greater angle	Smaller angle
<b>Size of ischial spine</b>	Less prominent	More prominent

*Anterior View of Female Reproductive Organs*

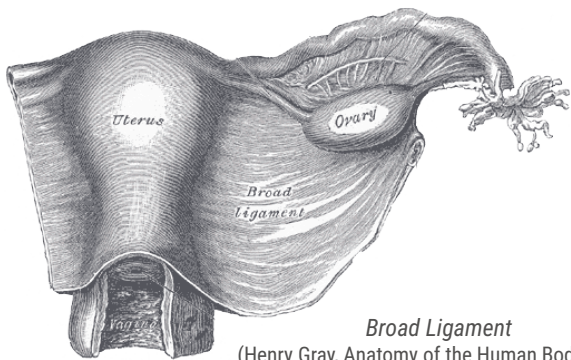
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## Peritoneum with Uterus:

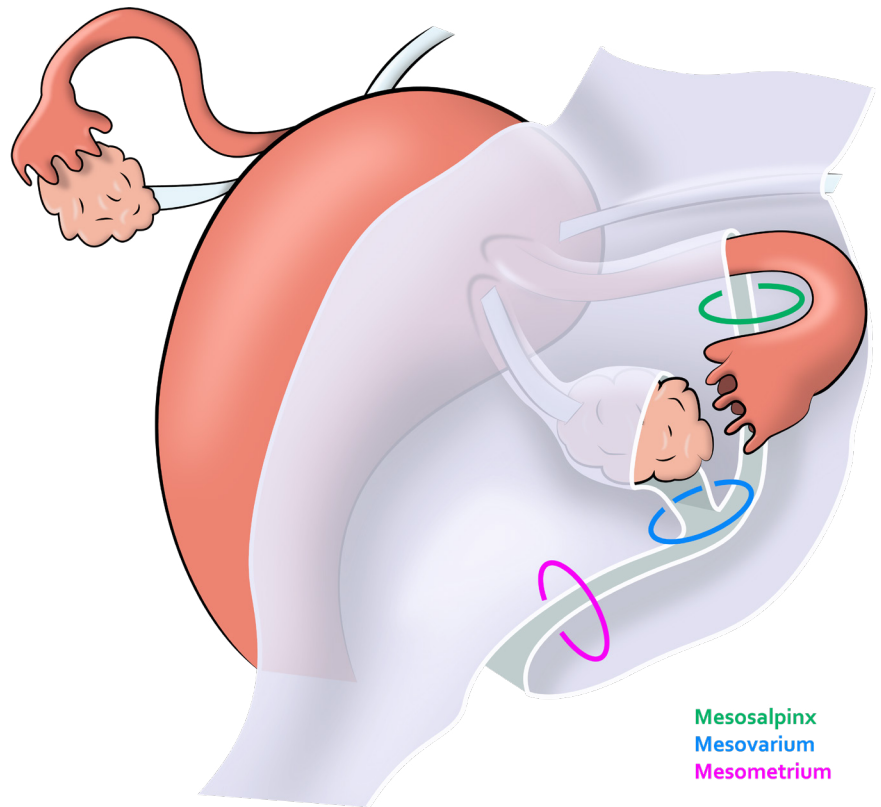
- Rectouterine pouch
- Broad ligament
  - Mesosalpinx
  - Mesovarium
  - Mesometrium

## Peritoneum with Prostate:

- Rectovesical pouch



Broad Ligament  
(Henry Gray, Anatomy of the Human Body, 1918)



## Female Pelvic Cavity

(B. Kathleen Alsup & Glenn M. Fox, University of Michigan Medical School, [BlueLink](#))

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## Viscera (Female):

Rectum

Urinary bladder

Urethra

Ureter — **Note relationship  
to uterine artery**

Uterus

Round ligament

Ovaries

Ovarian ligament

Suspensory ligament

- Right & left kidneys
  - Renal pelvis
- Right & left adrenal (suprarenal) glands

*Female Pelvic Cavity*

*Sagittal Section of Female Pelvis*

*Dissection Images:* (B. Kathleen Alsup & Glenn M. Fox, University of Michigan Medical School, [BlueLink](#))

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## *Viscera (Male):*

Rectum

Urinary bladder

Urethra

Ureter — **Note relationship to vas deferens**

Seminal vesicles

Prostate

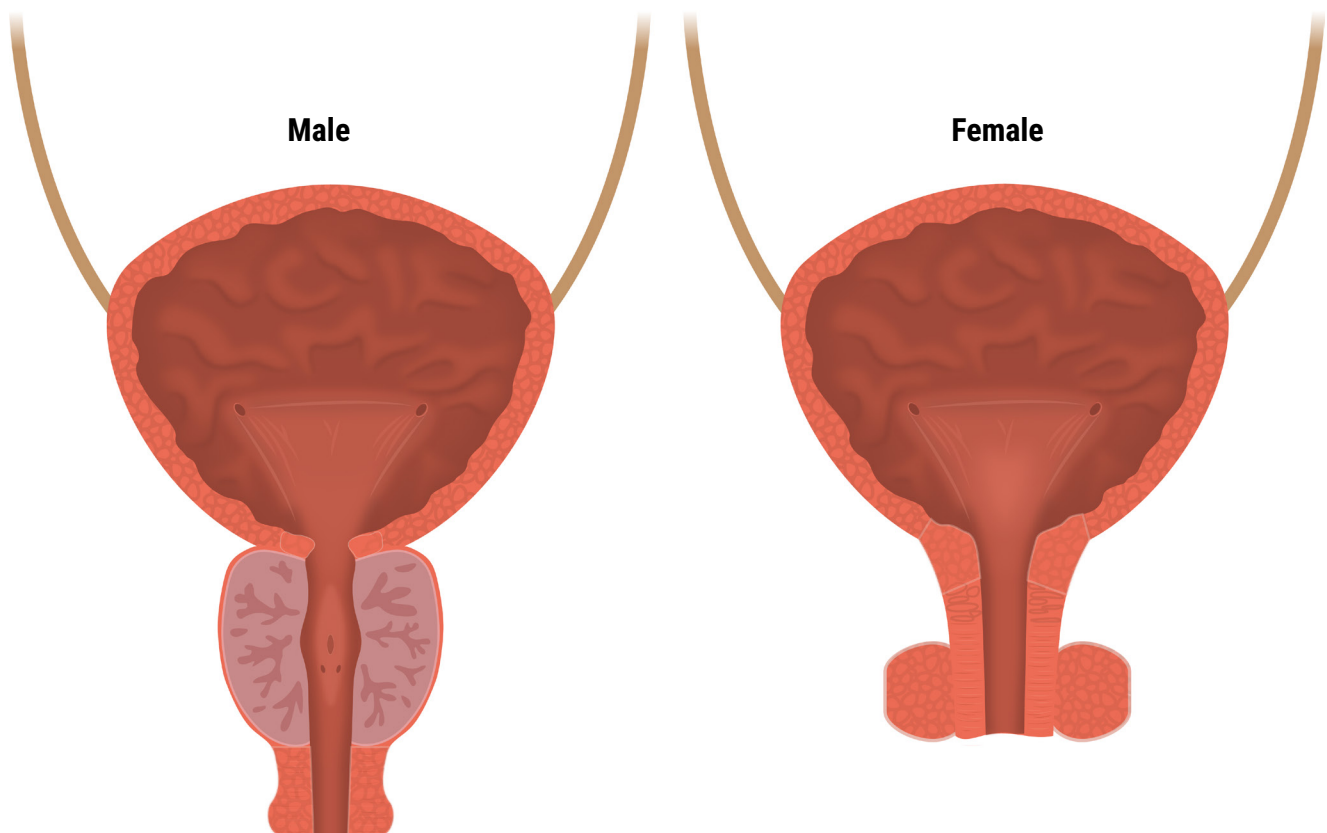
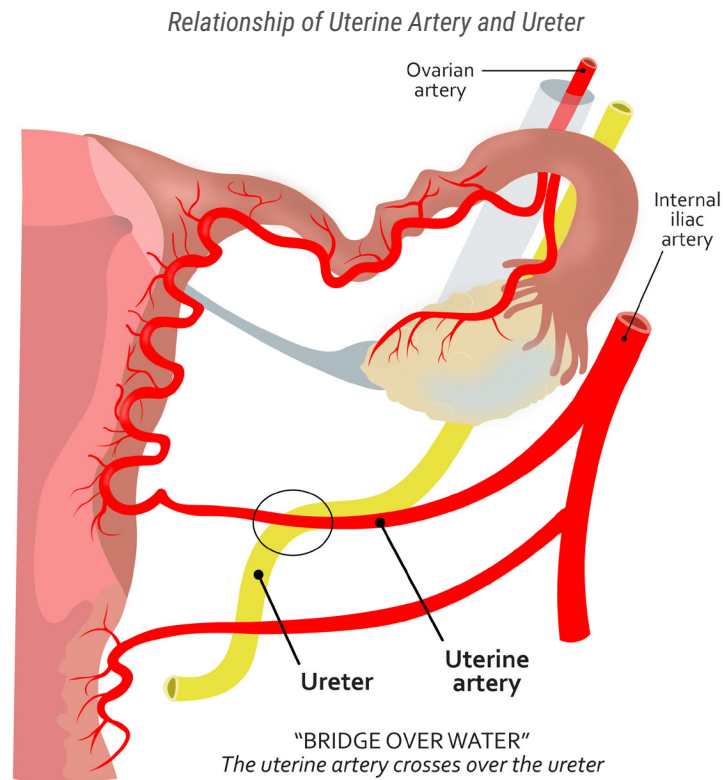
- Right & left kidneys
  - Renal pelvis
- Right & left adrenal (suprarenal) glands

*Posterior View of Male Reproductive Organs*

*Sagittal Section of Male Pelvis*

*Male Pelvic Cavity*

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*Male vs Female Bladder  
(Frontal Section)*

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## *Arteries:*

Testicular / Ovarian

Internal iliac

- Uterine

- Obliterated umbilical

- Superior & inferior vesical

- Obturator

External iliac

*Sagittal Section of Male Pelvis*  
(B. Kathleen Alsup & Glenn M. Fox, University  
of Michigan Medical School, [BlueLink](#))

*Sagittal Section of Female Pelvis*  
(B. Kathleen Alsup & Glenn M. Fox, University  
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*Anterior Abdominopelvic Cavity*  
(B. Kathleen Alsup & Glenn M. Fox, University  
of Michigan Medical School, [BlueLink](#))

### *Questions for the Lab:*

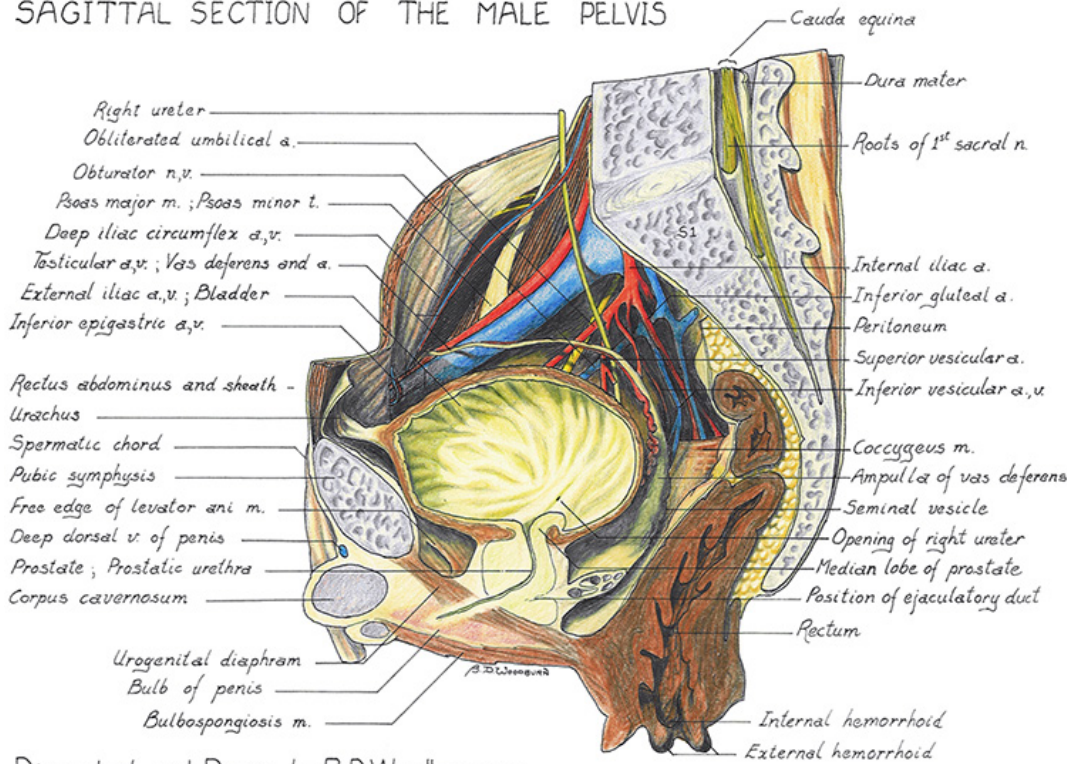
- 1) Into which space is the ovum released during ovulation?
  
- 2) What do you think the symptoms of an accumulation of fluid in the rectouterine or rectovesicular pouch would be? What would this feel like for the patient? How would you assess this?
  
- 3) Which part of the bony pelvis is the landmark to describe progress of baby's head through the pelvis during labour?
  
- 4) Describe the pathway of sperm from the testes to the urethra.



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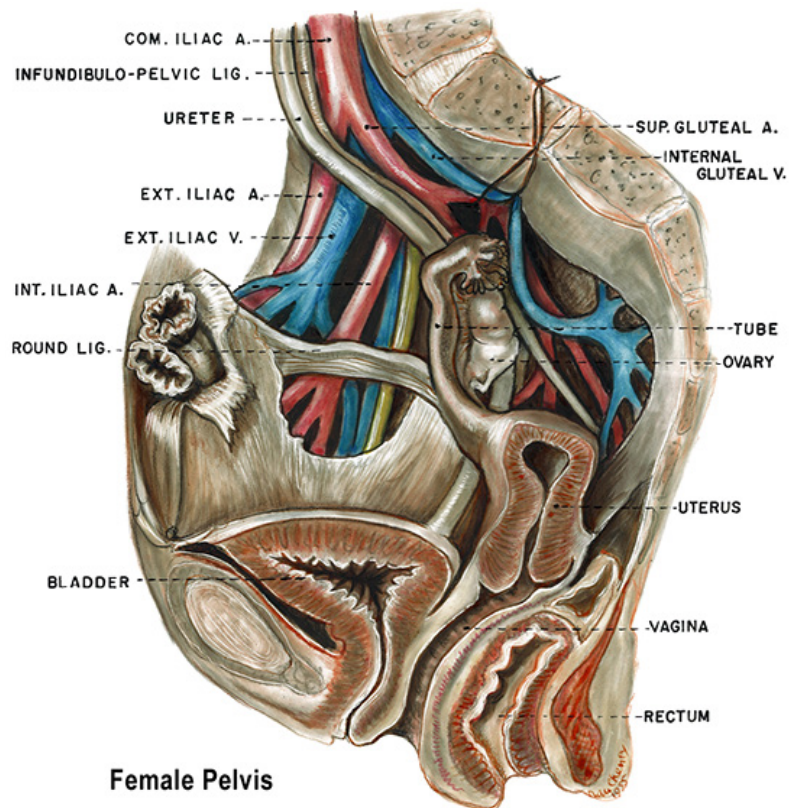
## Additional Images:

### SAGITTAL SECTION OF THE MALE PELVIS



[clinicalanatomy.ca/illustrations](http://clinicalanatomy.ca/illustrations)Other

Dissected and Drawn by B.D. Woodburn 1977



[clinicalanatomy.ca/illustrations](http://clinicalanatomy.ca/illustrations)Cheney

Female Pelvis

# LAB 10 DISSECTOR

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## Notes:

- Look around the room at other cadavers and their pelvic anatomy
- Use the prosections gently to guide your own dissection

1. *Demonstrate viscera such as the **rectum**, the **uterus with tubes and ovaries** and the **bladder**:*

- Use your fingers to gently separate the viscera

2. *Identify the following spaces:*

- **Female:** rectouterine pouch and vesicouterine pouch
- **Male:** rectovesical pouch

3. *In the **female**, study the peritoneal coverings of the uterus and the adnexae: the broad ligament:*

- It is composed of the:
  - **Mesometrium** (to body of uterus)
  - **Mesoovarium** (to ovary)
  - **Mesosalpinx** (to uterine tube)

4. *Additional structures you should find in the **female** include:*

- Uterus
- Uterine tubes
- Ovaries
- Round ligament of the uterus

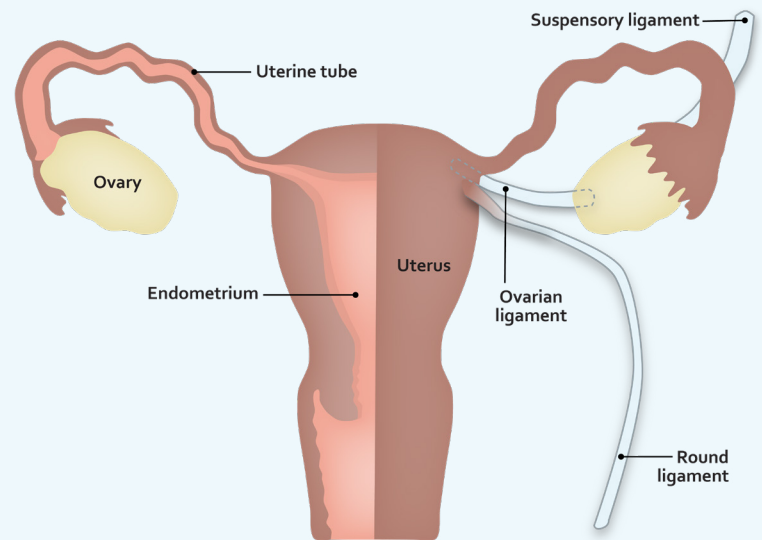
5. *Additional structures you should dissect in the **male** are:*

- **Ductus deferens** - it crosses over the ureter ("**bridge over water**")
- Palpate the **seminal vesicles**

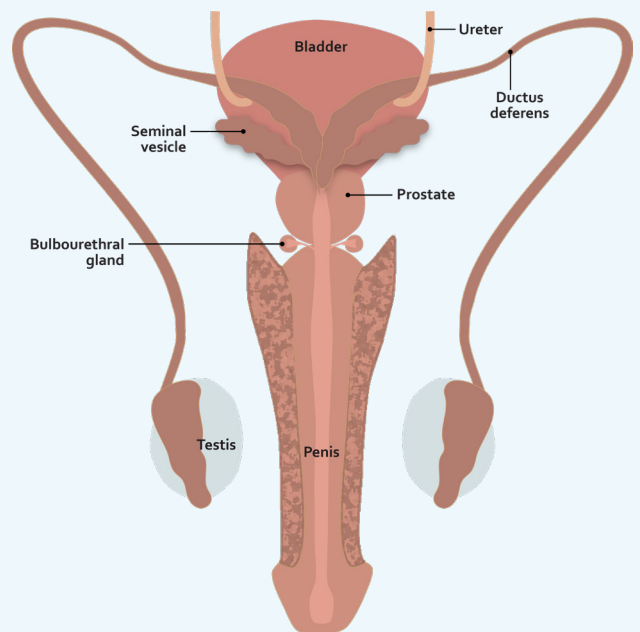
6. *In both the male and female you should dissect the ureters descending to the **bladder**.*

7. *On one side leave the peritoneum intact, on the other you can strip away the peritoneum, which will give you access to the branches of the internal iliac artery and the lumbosacral plexus found on the lateral wall of the pelvis. Look for the following arterial branches:*

- **Anterior & posterior divisions** of internal iliac artery
- **Obliterated umbilical artery**
- **Superior vesical artery**
- In the **female**, you need to identify the **uterine artery** - it crosses over the **ureter** ("**bridge over water**") and the **ovarian artery**



Female reproductive organs (anterior view)



Male reproductive organs (posterior view)