

# *Female Perineum and External Genitalia*

Before going through the contents, make sure you check this [CORRECTION FILE](#) first

**Perineum** • Is a diamond shaped region of the body below the pelvic diaphragm. (The outlet of the pelvis) between the thighs

**Boundaries:**

- Anteriorly** Mons pubis (Fatty area covering Symphysis pubis) •
- Laterally** Medial surfaces of the thighs •
- Posteriorly** Intergluteal folds •

**Contents:**

- Lower ends of urethra, vagina & anal canal •
- External genitalia •
- Perineal body & Anococcygeal body** •

	<b>Perineal body</b>	<b>Anococcygeal Body</b>
<b>Formed of</b>	irregular fibromuscular mass	a complex musculotendinous structure
<b>Position</b>	<p><b>located at</b> midpoint of the line <u>between the ischial tuberosities</u></p> <p><b>Lies in</b> the subcutaneous tissue</p> <p><b>Posterior</b> to vaginal vestibule</p> <p><b>Anterior</b> to the anal canal &amp; anus</p> <ul style="list-style-type: none"> <li>• Forms the central point of the perineum</li> <li>• lends anteriorly with the perineal membrane</li> </ul>	<p>Situated <b>between</b> the anterior aspect of the coccyx and the posterior wall of the anorectal canal</p>
<b>Function</b>	<p>Gives attachment to perineal muscles</p> <ul style="list-style-type: none"> <li>• Plays an important role in visceral support especially in female</li> </ul>	<p><b>Receives</b> insertion of fibers of <b>levator ani</b> muscle</p>

## Boundaries & Division of Perineum

### Boundaries

Its bony boundaries are:

- **Anterior:** Symphysis pubis.
- **Posterior:** Coccyx.
- **Lateral:** Ischiopubic rami, ischial tuberosities & sacrotuberous ligaments.

### Division:

By an imaginary line passing through two ischial tuberosities, it is divided into:

- **Urogenital triangle anteriorly.**
- **Anal triangle posteriorly.**

## Urogenital Triangle

### Boundaries

- **anteriorly :** Symphysis pubis
- **Posteriorly :** Transverse line passing through the 2 ischial tuberosities.
- **Laterally :** Ischiopubic rami & ischial tuberosities.

### Contents

- **Lower part** of urethra & vagina.
- External genitalia (vulva).

## Urogenital Diaphragm

### What is it

A triangular musculofascial diaphragm

### Location

- the anterior part of the perineum in the urogenital triangle
- Fills in the gap between the pubic arch.

### Composed of

- Sphincter urethrae
- **deep transverse perineal** muscles enclosed within the superior and inferior layers of **fascia of the urogenital diaphragm**
- The inferior layer of the fascia is formed by the **perineal membrane**

## **Fascia of Urogenital Triangle (Perineal Fascia)**

The perineal fascia is continuous anteriorly with the fascia of abdomen and consists of superficial and deep layers

### **Superficial perineal fascia:**

- **Superficial fatty layer** (Camper's fascia) makes up the substance of mons pubis & labia majora and extends into the anal region
- **Deep membranous layer (Colle's fascia )**: Does not extend to anal region. Becomes fused with the posterior margin of the **perineal membrane**

### **Deep perineal fascia**

invests the muscles in the superficial perineal pouch

## **Vagina**

### **Female External Genitalia (Vulva)**

**Mons pubis** : a collection of fat overlying the pubes.

**Labia majora.**

**Labia minora.**

**Clitoris.**

**Vestibule of vagina**: The interval between the two labia minora.

Vagina & urethra **open into** the **vestibule** through **urethral orifice** anteriorly and **vaginal orifice** posteriorly.

#### **What is it**

is a **muscular canal** that leads **from the uterus to** the external orifice of the genital canal (**vaginal orifice**)

#### **Length**

measures about 3 in. (8 cm) long.

#### **Function**

It serves as the excretory duct for the menstrual flow & forms part of the birth canal.

#### **Blood supply**

##### **Arteries:**

1-Vaginal artery

2-branch of the internal iliac artery

Vaginal branch of the uterine artery

**Veins:** drain into the internal iliac veins.

# Perineal Pouches

	Superficial Perineal Pouch	Deep Perineal Pouch
What is	It is the space between the <u>deep membranous layer</u> of superficial fascia and the <u>perineal membrane</u> .	It is a completely closed space Between superior and inferior fascia of the urogenital diaphragm <u>deep to</u> the perineal membrane
Boundaries	<ul style="list-style-type: none"> <li>• <b>Inferiorly:</b> membranous layer of superficial fascia.</li> <li>• <b>Superiorly:</b> perineal membrane.</li> <li>• <b>Laterally:</b> ischiopubic rami</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Inferiorly:</b> Inferior fascia of the urogenital diaphragm (Perineal membrane)</li> <li>• <b>Superiorly:</b> Superior fascia of the urogenital diaphragm</li> <li>• <b>Laterally:</b> Inferior portion of <b>obturator internus fascia</b>.</li> </ul>
Contents	<ul style="list-style-type: none"> <li>• Bulbs of vestibule: on each side of vaginal orifice.</li> <li>• Crura of clitoris.</li> <li>• Superficial perineal muscles:               <ol style="list-style-type: none"> <li>Bulbospongiosus muscle, surrounds orifice of vagina and covers vestibular bulb.</li> <li>Ischiocavernosus muscle, covers crus of clitoris on each side.</li> <li>Superficial transverse perineal muscles.</li> </ol> </li> <li>• Greater vestibular glands: on each side of vaginal orifice.</li> <li>• Perineal branch of pudendal nerve supplying muscles &amp; skin</li> </ul>	<ul style="list-style-type: none"> <li>• Part of urethra</li> <li>• Part of vagina</li> <li>• Sphincter urethrae muscle, which is pierced by urethra &amp; vagina.</li> <li>• Deep transverse perineal muscles</li> <li>• Internal pudendal vessels</li> <li>• Dosal nerve of clitoris</li> </ul>

## Anal Triangle

### Boundaries:

**Anteriorly:** Transverse line passing through the 2 ischial tuberosities.

**Posteriorly :** coccyx.

**Laterally :** ischial tuberosity & sacrotuberous ligament .

### Contents:

- Lower part of Anal canal
- Ano-coccygeal body
- Ischiorectal fossa on each **side**

## Anal Canal

### Length

It is about 1.5 in. long, descending from the rectal ampulla to the anus.

### Relations (In female):

**Anteriorly:** Perineal body, urogenital diaphragm, and lower part of vagina

**Posteriorly:** Anococcygeal body. **Laterally:** Ischiorectal fossae.

### Division of anal canal

#### Arterial supply

#### Venous drainage

#### Lymphatic

#### Nerves

Upper half  
from hindgut  
(endoderm)

**Superior rectal artery**  
(continuation of the inferior mesenteric artery)

**Superior rectal vein**  
drained into the inferior mesenteric vein (**portal circulation**)  
**Clinical application**  
:**Internal hemorrhoids**

**Para-rectal nodes**  
drained into inferior mesenteric lymph nodes

**Visceral motor** (sympathetic & parasympathetic) & **sensory nerves**  
**Sensitive to stretch**

- Gives supply to **Internal sphincter**

Lower half  
from the  
proctodeum  
(ectoderm)

**Inferior rectal a.**  
(branch of internal pudendal artery)

**Inferior rectal vein**  
drained into the internal pudendal vein (**Systemic circulation**) (**site of portal-systemic anastomosis**)

**Superficial inguinal lymph nodes**

**Somatic motor & sensory nerves - (Inferior rectal N. branch of pudendal N.)** supplies **external sphincter muscle** of the anus and that supply **the skin of the anal region.**

**Ischiorectal Fossa** :A fascial lined wedge-shaped space on each side of the anal canal.

**Boundaries:**

- **Base:** Skin of the perineum.
- **Medial wall:** Levator ani & anal canal.
- **Lateral wall:** Obturator internus, covered with fascia.

**Contents:**

- Dense fat.
- Pudendal nerve & internal pudendal vessels within the pudendal canal
- Inferior rectal nerve & vessels crossing the fossa to reach anal canal.

**Pudendal Canal:** A fascial canal formed by obturator fascia, located on the lateral wall of the ischiorectal fossa

**Contents:**

- 1- Pudendal nerve. 2- Internal pudendal vessels.

**Pudendal Nerve Block**

is used in **providing analgesia** for the **second stage of labour** and to **provide anesthesia of the perineum** in order to create or repair an **episiotomy\***.done by either **transvaginal or perineal methods**

\*(is a surgical incision on the perineum and the posterior vaginal wall during second stage of labor to prevent perineal tear)

**Transvaginal method**

The needle is passed through the vaginal mucous membrane **toward the ischial spine**. After the needle is passed through the **sacrospinous ligament**, the anesthetic solution is **injected around the pudendal nerve**

**Perineal method:**

The **ischial tuberosity** is **palpated subcutaneously** through the buttock. The needle is inserted on the medial side of the ischial tuberosity to a depth of about 1 in. (2.5 cm) from the free surface of the tuberosity. The anesthetic is **injected around the pudendal nerve**.

## MCQs

Q1: all the following are contents of deep perineal pouch except :

- A. Urethra
- B. Vagina
- C. Crura of clitoris
- D. Sphincter urethrae muscle

Q2: All the following are contents of urogenital triangle except :

- A. Urethra
- B. Vagina
- C. Valva
- D. Anus

Q3:Which one of the following structures forms the center point of perineum?

- A. Perineal body
- B. Ischial tuberosities
- C. anococcygeal body
- D. Coccyx

Q4:Which one of the following structures is posterior to the anal canal :

- A. Perineal body
- B. Ischiorectal fossae
- C. anococcygeal body
- D. Urogenital diaphragm

Q5:Which of the following arteries supply upper half of anal canal :

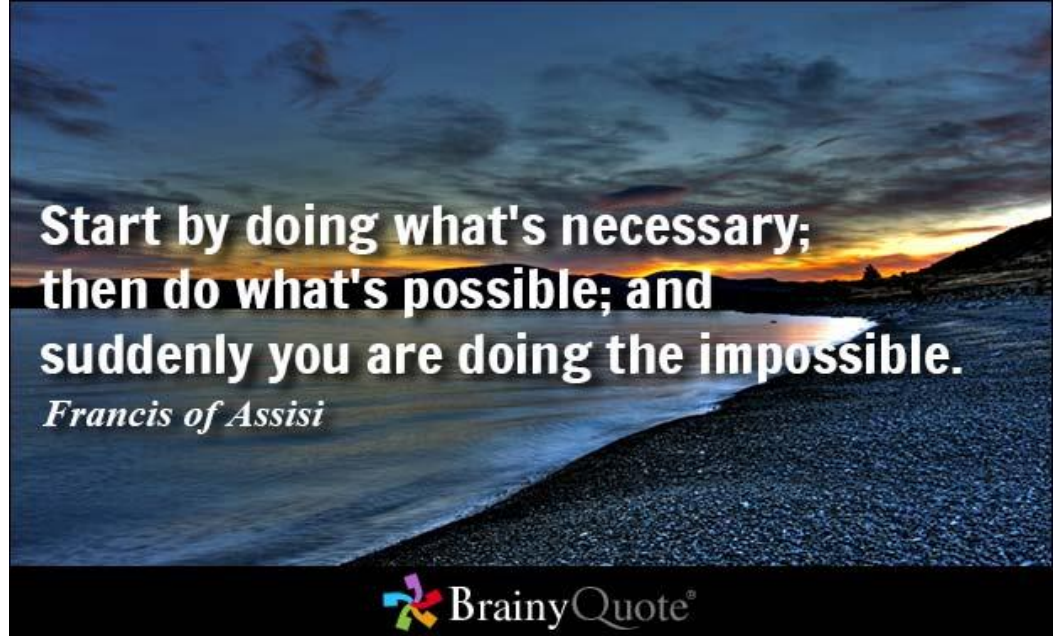
- A. Superior vesical artery
- B. Superior rectal artery
- C. Inferior rectal artery
- D. Inferior vesical artery



THANK YOU FOR CHECKING OUR WORK  
GOOD LUCK DOCTORS

Key Answers:

- 1-C
- 2-D
- 3-A
- 4-C
- 5-B



الأفعال أبلغ من الأقوال

Actions speak louder than words

Done By:

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MCQ's By:

433 Anatomy team work

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