

## WALLS OF PELVIS

### INTERNAL ILIAC ARTERY.(SE)

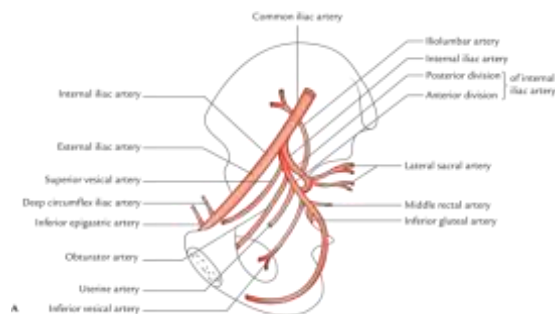
Internal iliac artery is the smaller terminal branch of the common iliac artery.

3.75 cm long.

It supplies - pelvic organs.

- Perineum.
- gluteal region.
- Iliac fossa.

Course:



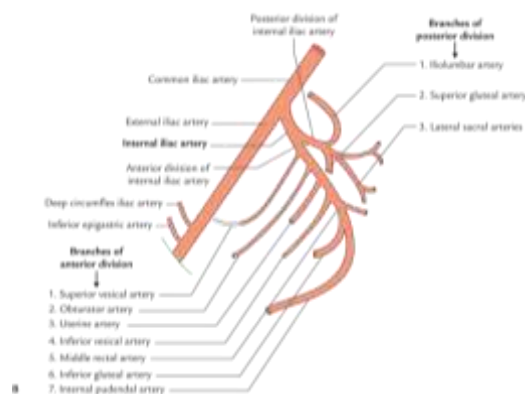
It begins in front of the sacroiliac joint, at the level of the intervertebral disc between the 5<sup>th</sup> lumbar vertebra & sacrum.

Lies medial to psoas major muscle.

Ends near the upper margin of the greater sciatic notch.

Terminates by dividing into anterior & posterior division.

Branches:



Branches from anterior division:

In males.

- Superior vesical.
- Obturator.
- Middle rectal.
- Inferior vesical.
- Inferior gluteal.
- Internal pudendal.

In females,

Inferior vesical artery is replaced by vaginal artery.

Branches from posterior division:

Iliolumbar.

Two lateral sacral.

Superior gluteal arteries.

### **NERVE ERIGENTIS. (SE/SA)**

The nerve erigentes, represents the sacral outflow of parasympathetic nervous system.

Arises as fine filaments from ventral rami of S2, S3, and S4.

They join the inferior hypogastric plexus.

Distributed to the pelvic organs.

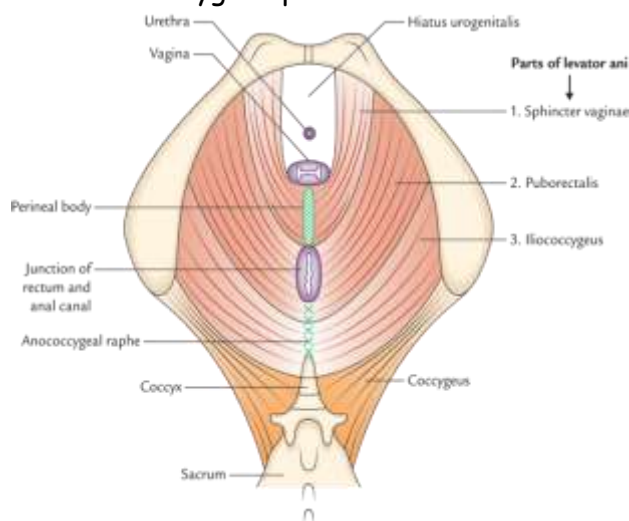
Pelvic splanchnic nerves produce vasodilatation of the erectile tissue of penis or clitoris, hence called the nervus erigens.

### **LEVATOR ANI MUSCLE. (SE)**

The levator ani muscle is divisible into

Pubococcygeus part &

Iliococcygeus part.



#### **Pubococcygeus part.**

##### **Origin:**

Anterior half of the white line & body of the pubis.

##### **Insertion:**

pubo-coccygeus proper

puborectalis.

Puboanalis.

Pubovesicalis or pubovaginalis.

#### **Iliococcygeus part.**

##### **Origin:**

posterior half of the white line & ischial spine.

**Insertion:**

lower two pieces of the coccyx & ano coccygeal raphe.

**Levatorani**

Posterior part -4<sup>th</sup> sacral nerve.

Anterior part-2<sup>nd</sup>,3<sup>rd</sup> sacral nerves via perineal nerve.

**Actions:**

The levatorani&coccygeus close the posterior part of the pelvic outlet.

The levatorani fix the perineal body and support the pelvic viscera.

They resist increased intra abdominal pressure and help to maintain the continence of the bladder and the rectum.

The coccygei,pull forwards and support the coccyx.

## PELVIC DIAPHRAGM-COMPONENTS, ATTACHMENTS OF MUSCLE,OPENINGS AND FUNCTIONS.

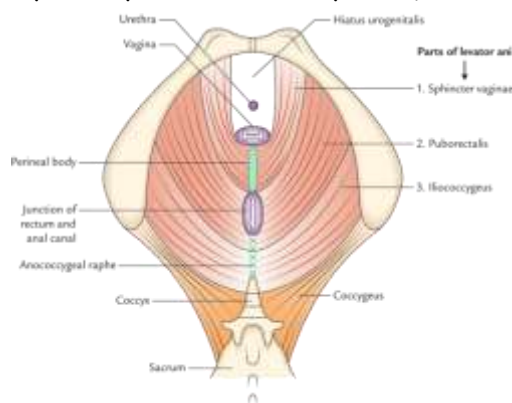
**COMPONENTS OF PELVIC DIAPHRAGM****Two Muscles**

- Levatorani muscle.
- Coccygeus.

**Two fasciae.**

Superior or pelvic fascia

inferior fasciae or anal fascia.

**ATTACHMENT OF MUSCLES**

The levatorani muscle is divisible into

- Pubococcygeus part &
- Iliococcygeus part.

**Pubococcygeus part.****Origin:**

Anterior half of the white line & body of the pubis.

**Insertion:**

pubo-coccygeus proper

puborectalis.

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**Iliococcygeus part.****Origin:**

posterior half of the white line & ischial spine.

**Insertion:**

lower two pieces of the coccyx & ano coccygeal raphe.

**OPENINGS OF PELVIC DIAPHRAGM**

Hiatus urogenitalis.

Hiatus rectalis.

**FUNCTIONS.**

Supports the pelvic viscera.

In male ,anteriorfibres of levatorani elevate the prostate.

In female ,anteriorfibres constricts the vagina.

Coccygeus muscle pulls the coccyx forwards .

During defaecationpubo-rectal sling relaxes.rectum& anal canal form a straight tube.

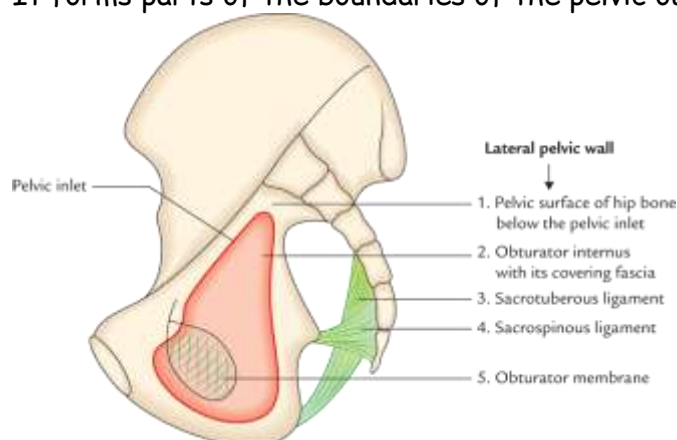
In parturition,the pubo-rectal sling allows forward rotation of the head into the lower part of birth canal.

In micturition the poubococcygeusrelax,bladder neck descends.

**SACROTUBEROUS LIGAMENT.(SE)**

It is a long and strong band.

It forms parts of the boundaries of the pelvic outlet and of the sciatic foramen.



Its superiomedial end or base is wide, attached to

The posterior superior and posterior inferior iliac spine.

The lower transverse tubercles of the sacrum.

The lateral margin of the lower part of the sacrum.

Upper part of the coccyx.

Inferiolateral end is narrow, attached to the medial margin of the ischial tuberosity.

A part of inferiolateral end extends along the ramus of the ischium & forms falciform process.

This ligament is covered by & also gives partial origin to gluteus maximus.

Sacrospinous ligament along with sacrotuberous ligament bind the sacrum to the ischium.

### **BRANCHES OF EXTERNAL ILIAC ARTERY.(SA)**

The artery gives the following important branches.

#### **Inferior epigastric artery:**

This branch arises just above the inguinal ligament.

It passes upward and medially along the medial margin of the deep inguinal ring.

It then enters the rectus sheath behind the rectus abdominis muscle.

#### **Deep circumflex iliac artery:**

It arises close to the inferior epigastric artery.

It ascends laterally to the anterior superior iliac spine and iliac crest, and supplies the muscle of the anterior abdominal wall.

#### **Femoral Artery:**

It is the continuation of the external iliac artery into the lower limb.

It forms the major blood supply of the lower limb of the body.

### **BRANCHES OF INTERNAL ILIAC ARTERY.(SA)**

Branches from anterior division.

In males,

Superior vesical.

Obturator.

Middle rectal.

Inferior vesical.

Inferior gluteal.

Internal pudendal.

In females,

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Branches from posterior division:

Iliolumbar.

Two lateral sacral.

Superior gluteal arteries.

## WHAT ARE DIFFERENT COMPONENTS OF PELVIC DIAPHRAGM.(SA)

### Two Muscles

Levator ani muscle.

Coccygeus.

### Two fasciae.

Superior & inferior fasciae of pelvic diaphragm.

## NAME THE MUSCLES FORMING THE PELVIC DIAPHRAGM.(SA)

### Two Muscles

Levator ani muscle.

Coccygeus.

The levator ani muscle is divisible into

Pubococcygeus part &

Iliococcygeus part.

Origin:

Pelvic surface of the body of pubis.

tendinous or white line of pelvic fascia.

pelvic surface of ischial spine.

### coccygeus

Also known as ischiococcygeus.

Triangular in shape.

Situated behind levator ani.

Arises from ischial spine & sacrospinous ligament.

Inserted to sides of upper two pieces of the coccyx & last piece of sacrum.

## SACROTUBEROUS LIGAMENT. (SA)

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