

PERINEUM

SUPERFICIAL PERINEAL POUCH-BOUNDARIES AND CONTENTS(SE).

BOUNDARIES:

Above: Perineal membrane.

Below: Fascia of colles.

On each side: Inner surface of ischiopubic ramus.

Behind: Closed by the fusion of perineal membrane with the fascia of colles.

In front: Open & continues with the superficial inguinal space.

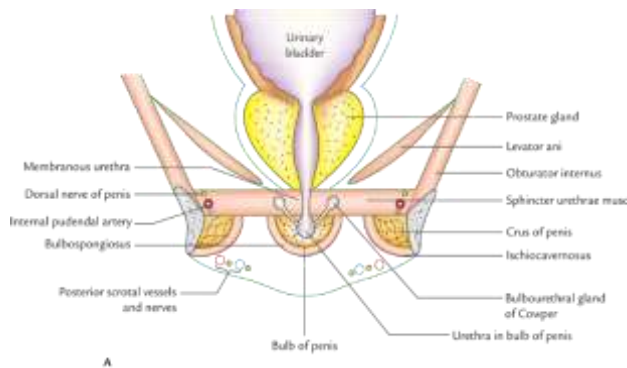
CONTENTS:

Muscles:

Ischio-cavernous, covering crus penis or clitoridis.

Transversus perinei superficialis.

Bulbospongiosus.



Vessels:

Two posterior scrotal or labial vessels, branches of internal pudendal.

Transverse perineal vessels, branches of scrotal or internal pudendal.

Nerves:

Two posterior scrotal or labial, branches of perineal nerve.

Perineal branch of posterior femoral cutaneous nerve.

Other structures:

Crus penis or clitoridis.

In male, bulb of the penis in the middle, which is traversed by the spongy urethra.

In female, urethra and vagina in the middle. Bulb of the vestibule and greater vestibular gland are present on each side of the vagina.

DEEP PERINEAL POUCH-BOUNDARIES AND CONTENTS(SE).

Boundaries:

Above: Superior fascia of urogenital diaphragm.

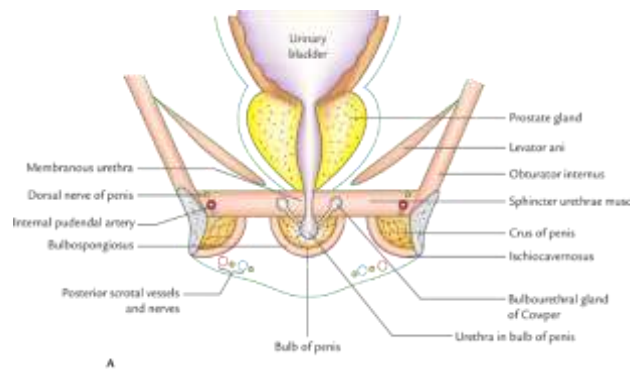
Below: Perineal membrane.(inferior fascia of urogenital membrane).

Infront: Transverse perineal ligament.

Behind: Fusion of perineal membrane with superior fascia of urogenital diaphragm.

On each side: Inner surface of ischiopubicra

Contents in male:



Membranous urethra

Sphincter urethrae

Deep transversus perinei

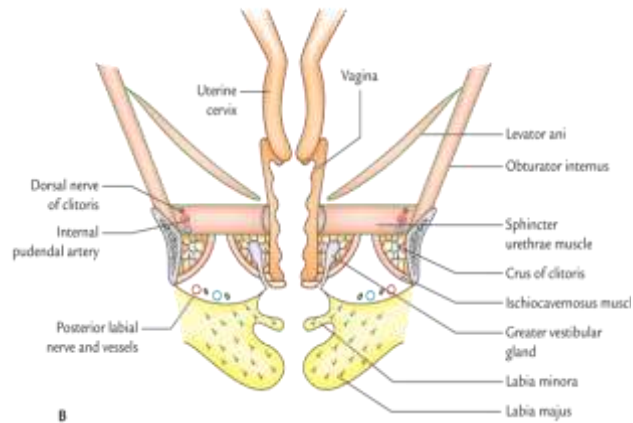
Bulbourethral gland

Internal pudendal vessels

Vessels of the bulb

Dorsal nerve of penis

Contents in female



Vagina

Urethra

Sphincter urethrae

Deep transverses perinei

Internal pudendal vessels

Vessels of the bulb

Dorsal nerve of clitoris

UROGENITAL DIAPHRAGM(SE).

Urogenital diaphragm is a musculo-fascial partition across the pubic arch.

It Separates the pelvic cavity from the anterior part of the pelvic outlet.

Contents:

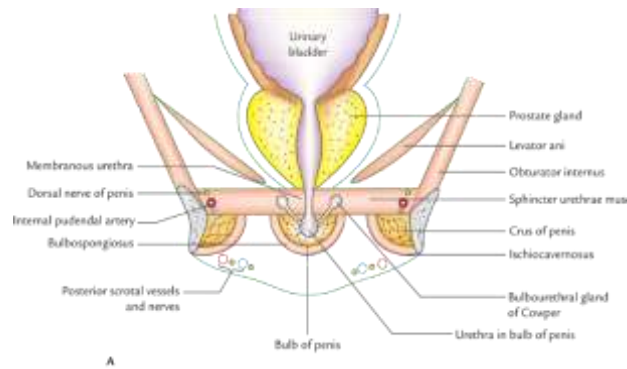
Two muscles:

Sphincter urethrae,

Transversus perinei profundus.

Two fasciae:

Superior & inferior fasciae of urogenital diaphragm.



Relations of urogenital diaphragm.

Below-contents of superficial perineal pouch.

Above- Apex of prostate(in Males),neck of the urinary bladder (In Females)

Anterior recesses of ischiorectal fossae.

Infront-a triangular gap between arcuate pubic ligament & transverse perineal ligament.

Behind-ischio rectal fossae and their contents.

Structures piercing the urogenital membrane:

Urethra.

Infemale,vagina behind the urethra.

Functions

Supports the prostate or the bladder.

Infemales,it constricts the vagina.

It fixes the perineal body.

Sphincter urethrae exerts voluntary control of micturition.

CONTENTS OF SUPERFICIAL PERINEAL POUCH(SA)

CONTENTS:

Muscles:

Ischio-cavernous,covering crus penis or clitoridis.

Transversusperineisuperficials.

Bulbospongiosus.

Vessels:

Two posterior scrotal or labial vessels,branches of internal pudendal.

Transverseperinealvessels,branches of scrotal or internal pudendal.

Nerves:

Two posterior scrotal or labial, branches of perineal nerve.

Perineal branch of posterior femoral cutaneous nerve.

Other structures:

Crus penis or clitoridis.

In male, bulb of the penis in the middle, which is traversed by the spongy urethra.

In female, urethra and vagina in the middle. Bulb of the vestibule and greater vestibular gland are present on each side of the vagina.

**UROGENITAL DIAPHRAGM-MUSCLES FORMING AND STRUCTURES
PIERCING. (SE)**

Urogenital diaphragm is a musculo-fascial partition across the pubic arch.

It separates the pelvic cavity from the anterior part of the pelvic outlet.

Muscles forming it are:**Two muscles:**

Sphincter urethrae,

Transversus perinei profundus.

Structures piercing the urogenital membrane:

Urethra.

In female, vagina behind the urethra.

PERINEAL MEMBRANE. (SE).

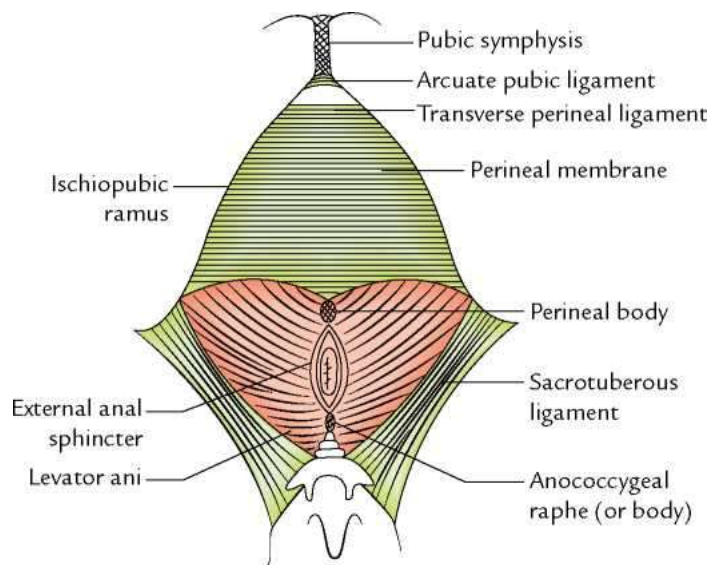
It is a thick triangular sheet of fascia.

Lies across the pubic arch.

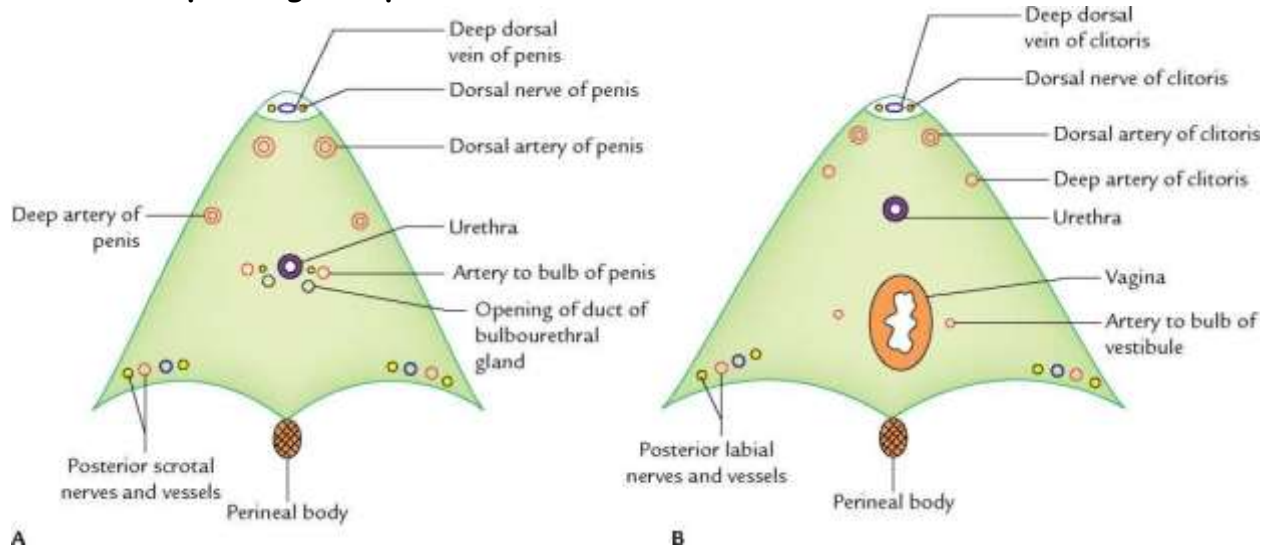
Its posterior border or base is continuous with the superior fascia of urogenital membrane above and Colles fascia below.

Connected to perineal body in the midline.

On each side it is attached to ischiopubic rami.



Structures piercing the perineal membrane



In males:

Urethra.
 Ducts of bulbourethral glands.
 Artery and nerve to the bulb.
 Urethral artery.
 Dorsal artery of the penis.
 Deep artery of penis.
 Posterior scrotal nerves.

In Females:

Urethra

Vagina.

Artery and nerve to the bulb of the vestibule.

Dorsal artery of the clitorius.

Deep artery of clitorius.

Posterior labial arteries and nerves.

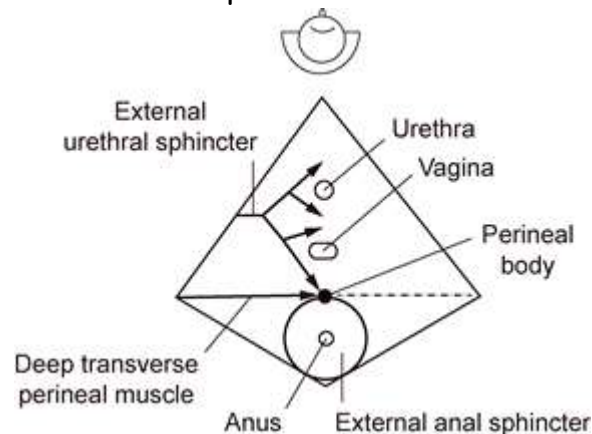
Branches of perineal nerve to superficial perineal muscles.

PERINEAL BODY(MUSCLES ATTACHED(SE)

This is a small wedge shaped mass of fibrous tissue.

It is attached to the center of the posterior margin of the urogenital diaphragm, 1.25cm in front of anal margin.

It serves as a point of attachment for many perineal muscles.



Muscles attached are

Two unpaired muscles.

External anal sphincter,

Fibers of longitudinal muscle coat of anal canal.

Paired muscles.

Bulbospongiosus muscle, and

Superficial and deep transverses perinei muscles.

Levator ani muscle.

Levatore ani assist the perineal body in supporting the posterior wall of the vagina.

The perineal body is larger in female than that of the male and is clinically important for support of the pelvic organs.

Sphincter urethra-vaginalis is also attached here.

It may be damaged during parturition or child birth, resulting in prolapsed of urinary bladder, the uterus, the ovaries or even the rectum.

ISCHIORECTAL FOSSA

DESCRIBE ISCHIORECTAL FOSSA UNDER FOLLOWING HEADINGS

- a. BOUNDARIES AND RECESSES
- b. CONTENTS
- c. APPLIED ANATOMY(LE)

Boundaries and recesses:

Boundaries:

Lateral wall- vertical formed by obturator internus, obturator fascia

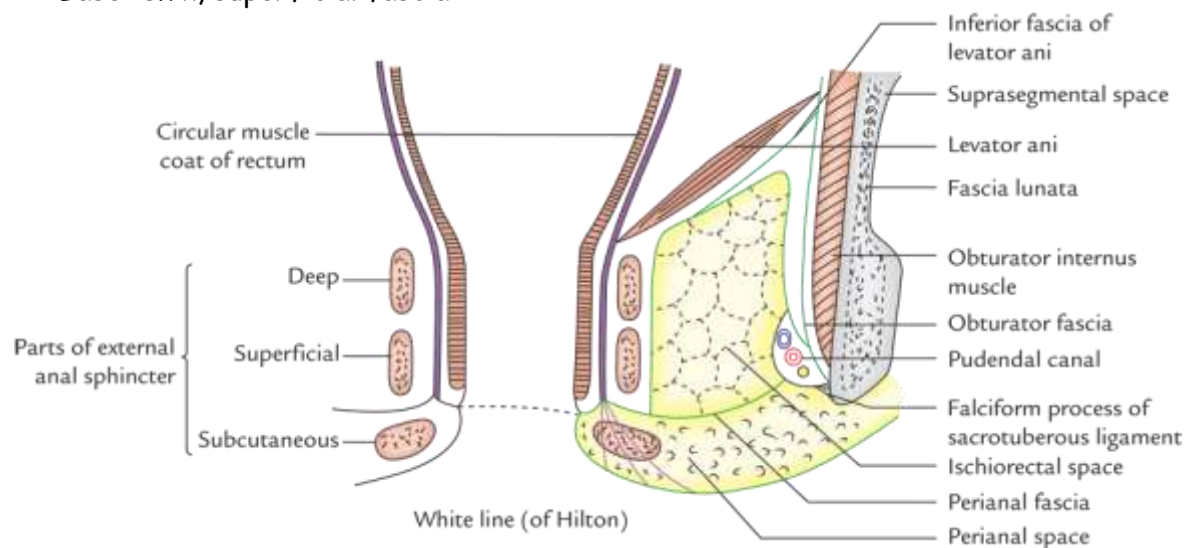
Medial wall- sloping formed by levator ani, sphincter ani externus

Anterior wall- perineal membrane with superficial and deep perineal muscles

Posterior wall- sacrotuberous ligament, gluteus maximus

Apex-medial and lateral wall meet

Base- skin, superficial fascia



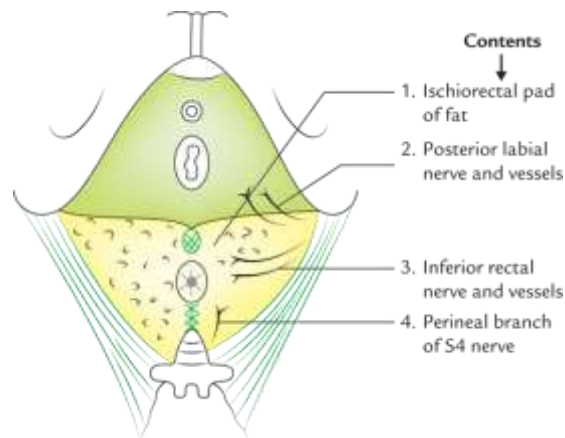
Recesses:

Anterior recess- extends above the urogenital diaphragm as far as body of pubis

Posterior recess- extends posteriorly by the side of coccyx between sacrotuberous ligament and sacrospinous ligament

Contents:

- Fat lobules separated by tough fibrous bands
- Inferior rectal nerves and vessels
- Perforating branch of S2, S3 and perineal branch of S4 nerve
- Pudendal nerve
- Internal pudendal vessels



Applied anatomy:

Starvation and rectal prolapse

In the absence of the fat, rectal prolapse is common. Loss of fat may be due to starvation or wasting and debilitating diseases like diarrhea in children

Ischioanal abscess

Ischioanal fossae is occasional site of infection resulting in formation of abscess which is very painful.

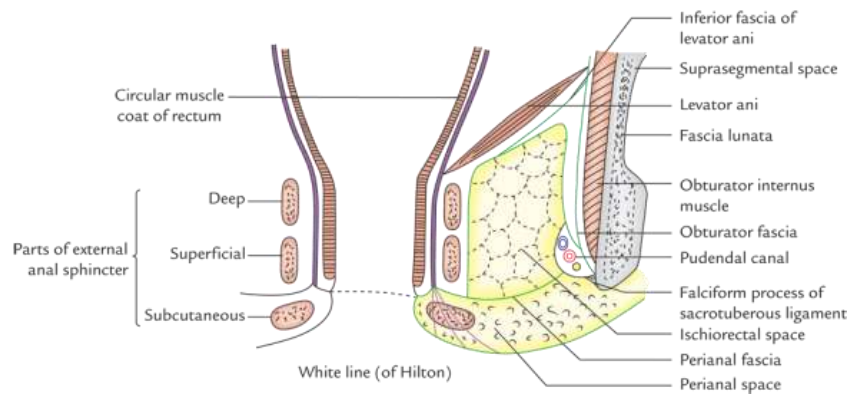
pudendal nerve block

The pudendal nerve as it runs in the pudendal canal in the lateral wall can be blocked by an anaesthetic to produce analgesia of the perineum during forceps delivery

ISCHIORECTAL FOSSA- BOUNDARIES, CONTENTS AND APPLIED ANATOMY(SE)

Boundaries:

- Lateral wall- vertical formed by obturator internus, obturator fascia
- Medial wall- sloping formed by levator ani, sphincter ani externus
- Anterior wall- perineal membrane with superficial and deep perineal muscles
- Posterior wall- sacrotuberous ligament, gluteus maximus
- Apex- medial and lateral wall meet



Base- skin, superficial fascia

Contents:

Fat lobules separated by tough fibrous bands

Inferior rectal nerves and vessels

Perforating branch of S2, S3 and perineal branch of S4 nerve

Applied anatomy:

Starvation and rectal prolapse

In the absence of the fat, rectal prolapse is common. Loss of fat may be due to starvation or wasting and debilitating diseases like diarrhea in children

Ischiorectal abscess

Ischiorectal fossae is occasional site of infection resulting in formation of abscess which is very painful.

pudendal nerve block

The pudendal nerve as it runs in the pudendal canal in the lateral wall can be blocked by an anaesthetic to produce analgesia of the perineum during forceps delivery

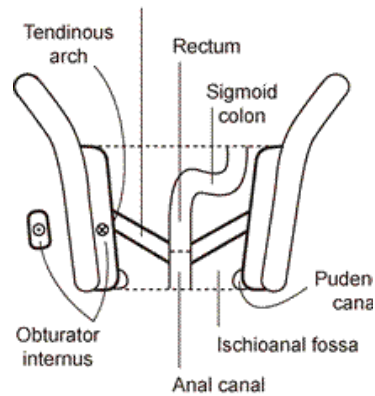
PUDENDAL CANAL(SE/SA)

It extends from lesser sciatic notch to deep perineal pouch in the lateral wall of ischiorectal fossa 2.5 cm above ischial tuberosities.

It is 3.75cm in length.

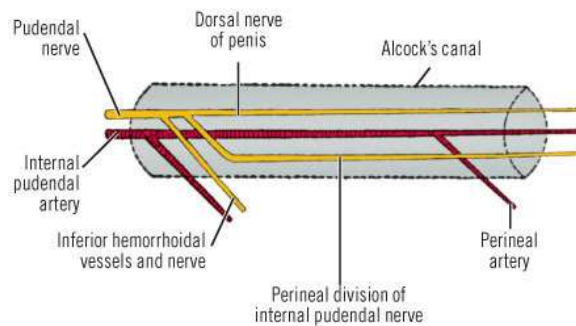
It is formed by the splitting of obturator fascia or by splitting of perianal fascia or by separation between lunate and obturator fascia

Levator ani



Contents-

pudendal nerve,
dorsal nerve of penis/ clitoris,
perineal nerve,
internal pudendal vessels



Applied anatomy

pudendal nerve block- the pudendal nerve as it runs in the pudendal canal in the lateral wall can be blocked by an anaesthetist to produce analgesia of the perineum during forceps delivery

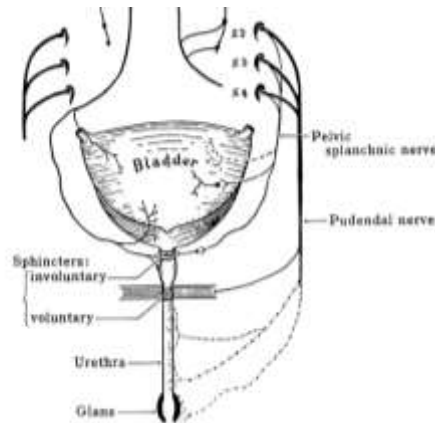
PUDENDAL NERVE(SE)

It is the smaller terminal branch of sacral plexus and the root value is ventral division of S2, S3, S4

Course:

The nerve passes through greater sciatic foramen below piriformis, crosses ischial spine and enters the pudendal canal at lesser sciatic notch in the lateral wall of ischiorectal fossa.

Near the distal (anterior end) of the canal the nerve divides into perineal nerve and dorsal nerve of penis in males or dorsal nerve of clitoris in females.



Branches and distribution:

Inferior rectal nerve- external anal sphincter and perianal space

Perineal nerve- superficial pouch

Dorsal nerve of penis or clitoris- deep perineal pouch, glans of penis or clitoris

Applied anatomy:

pudendal nerve block- the pudendal nerve as it runs in the pudendal canal in the lateral wall can be blocked by an anaesthetic to produce analgesia of the perineum during forceps delivery

ISCHIORECTAL FOSSA- WALLS AND CONTENTS(SA)

Walls:

Lateral wall- vertical formed by obturator internus, obturator fascia

Medial wall- sloping formed by levator ani, sphincter ani externus

Anterior wall- perineal membrane with superficial and deep perineal muscles

Posterior wall- sacrotuberous ligament, gluteus maximus

Apex- medial and lateral wall meet

Base- skin, superficial fascia

Contents:

Fat lobules separated by tough fibrous bands

Inferior rectal nerves and vessels

Perforating branch of S2, S3 and perineal branch of S4 nerve

PUDENDAL CANAL - BOUNDARIES AND CONTENTS(SA)

It extends from lesser sciatic notch to deep perineal pouch in the lateral wall of ischioanal fossa.

It is formed by the splitting of obturator fascia or by splitting of perianal fascia or by separation between lunatic and obturator fascia

Contents- pudendal nerve, perineal nerve, dorsal nerve of penis or clitoris, internal pudendal vessels

PUDENDAL NERVE (COURSE) (SA)

Course:

The nerve passes through greater sciatic foramen below piriformis, crosses ischial spine and enters the pudendal canal at lesser sciatic notch in the lateral wall of ischiorectal fossa. Near the distal (anterior end) of the canal the nerve divides into perineal nerve and dorsal nerve of penis in males or dorsal nerve of clitoris in females.

BRANCHES OF INTERNAL PUDENDAL ARTERY(SA)

Inferior rectal artery: Supplies blood to anal canal.

Perineal artery: Supplies blood to the superficial transverse perineal muscle.

Posterior labial (females)/scrotal (males) branches: Provides blood to labia major and minora in females and scrotum in males.

Artery of the bulb of the vestibule (females)/penis (males): Supplies the bulb of vestibule in females and the bulb of penis in males.

Dorsal artery of clitoris (females)/penis (males): Supplies the clitoris in females and penis in males.

Deep artery of clitoris (females)/penis(males): Supplies the clitoris in females and penis in males

PUDENDAL NERVE BLOCK (SA)

The pudendal nerve as it runs in the pudendal canal in the lateral wall can be blocked by an anaesthetist to produce analgesia of the perineum during forceps delivery. It is also used for vaginal deliveries and for minor surgeries of the vagina and perineum. The most common sites for injection are at the ischial spine between the sacrotuberous and sacrospinous ligaments or in the Alcock's canal.

When the nerve block is conducted under guidance, the patient is placed in the prone position.

The doctor injects a local anesthetic, to make the buttocks numb prior to injecting the needle that targets the nerve.

When the pudendal nerve is located, the short term diagnostic anesthetic and the steroid are injected.

The procedure itself lasts approximately 30 minutes and is done on an outpatient basis

