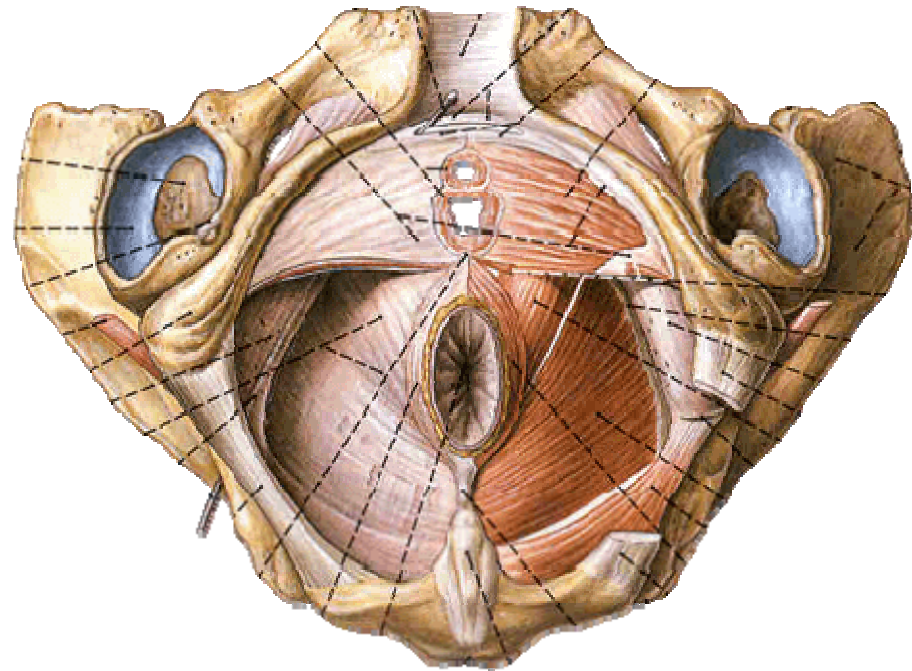
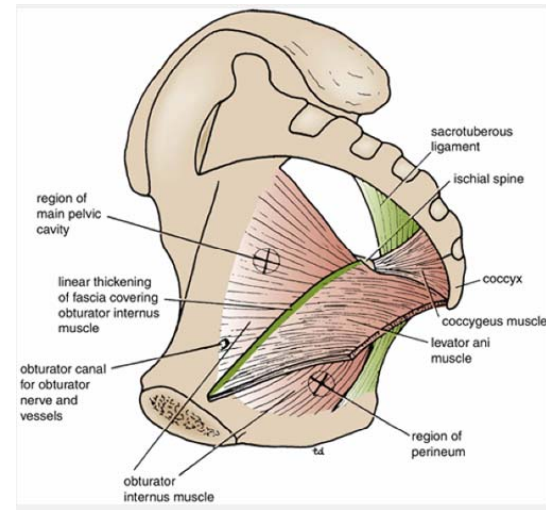


Perineum

General features

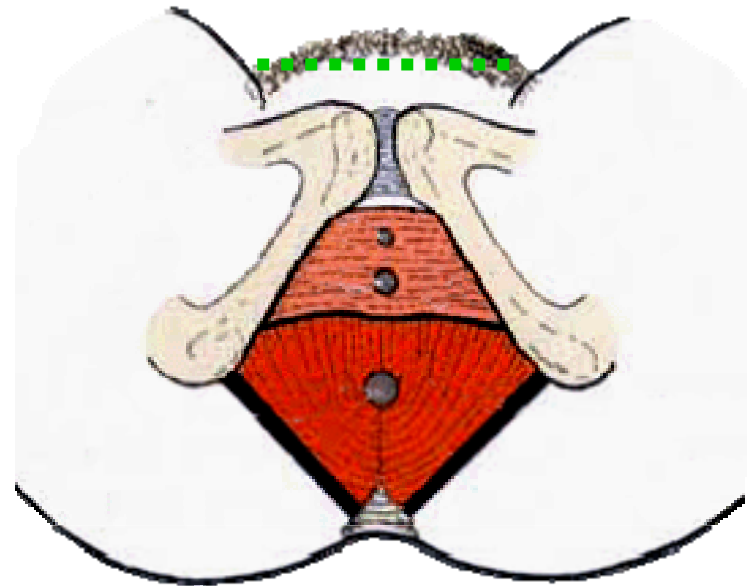
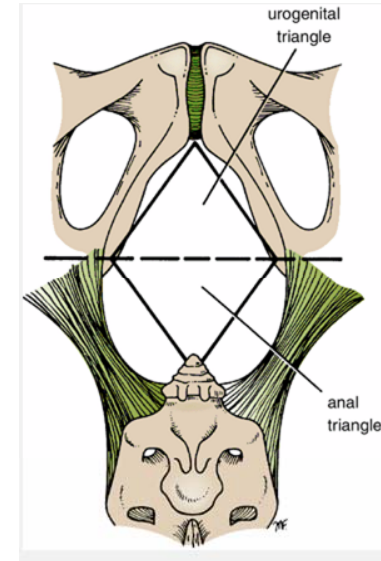
- Region of below pelvic diaphragm
- A diamond-shape space whose boundaries are those of the pelvic outlet
 - Lower border of symphysis pubis
 - Rami of pubis and ischium
 - Ischial tuberosities
 - Sacrotuberous ligament
 - The coccyx

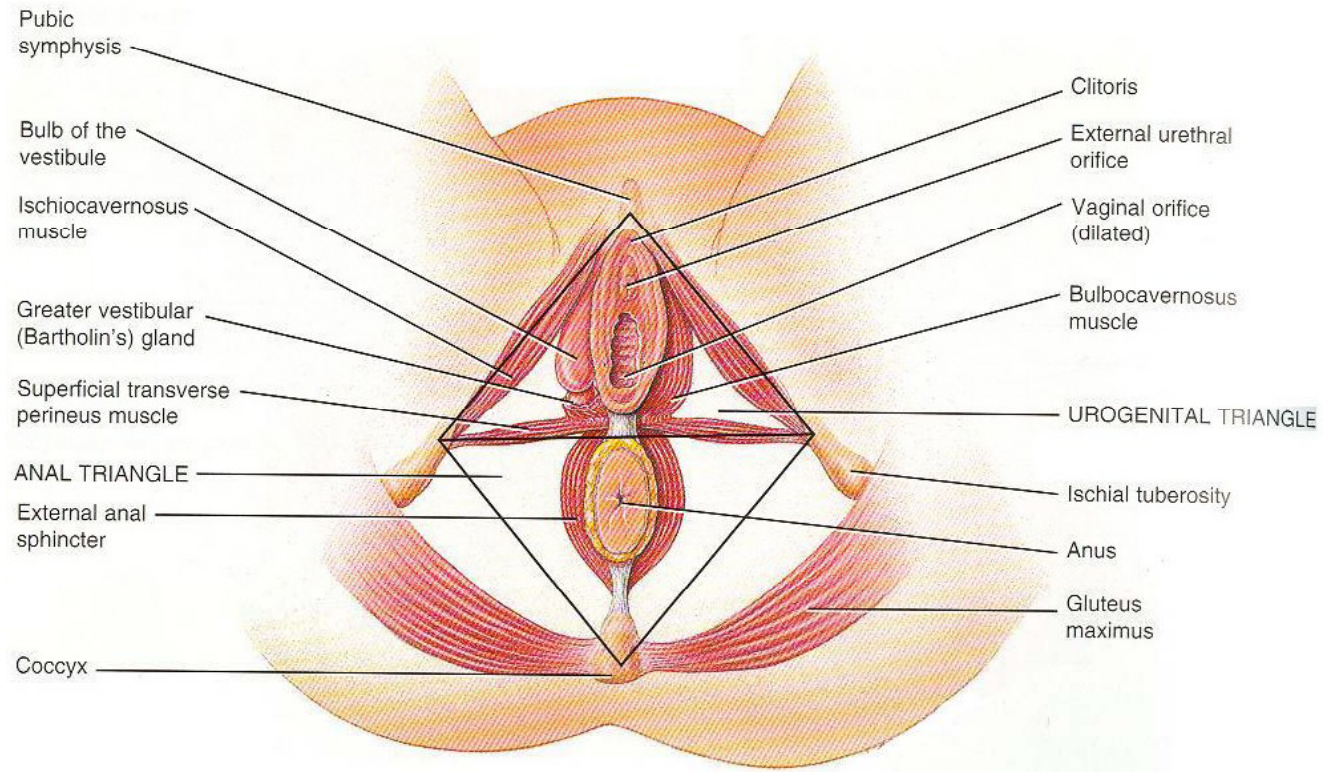


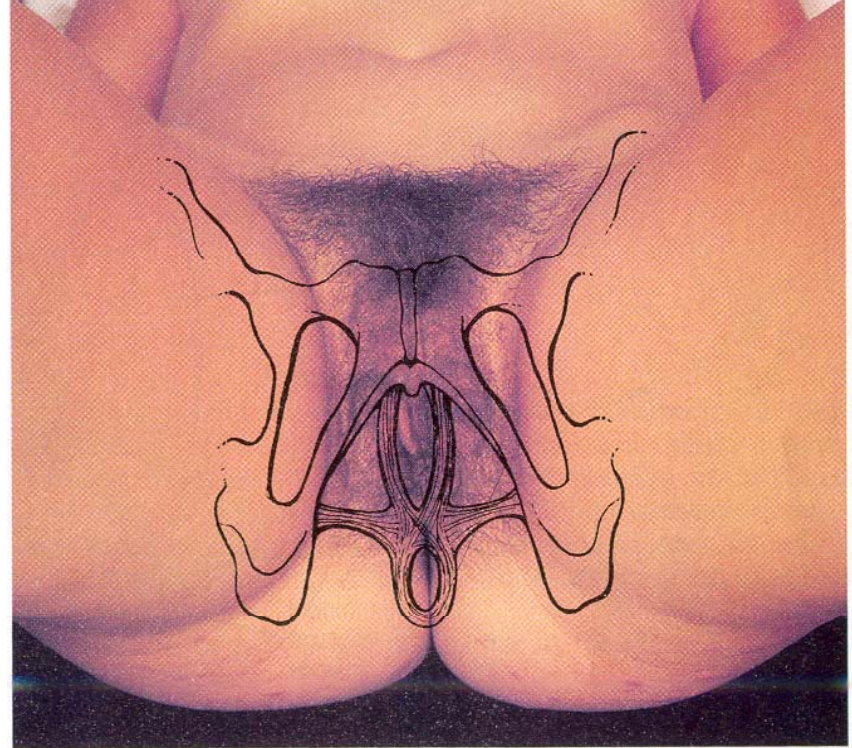
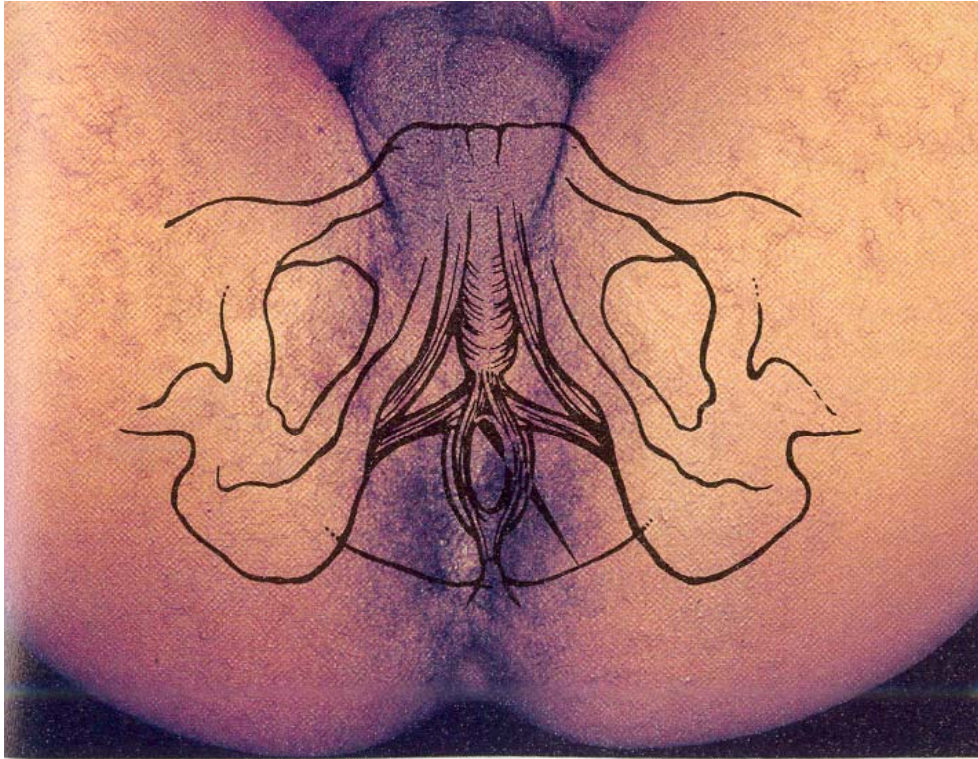
Two triangles

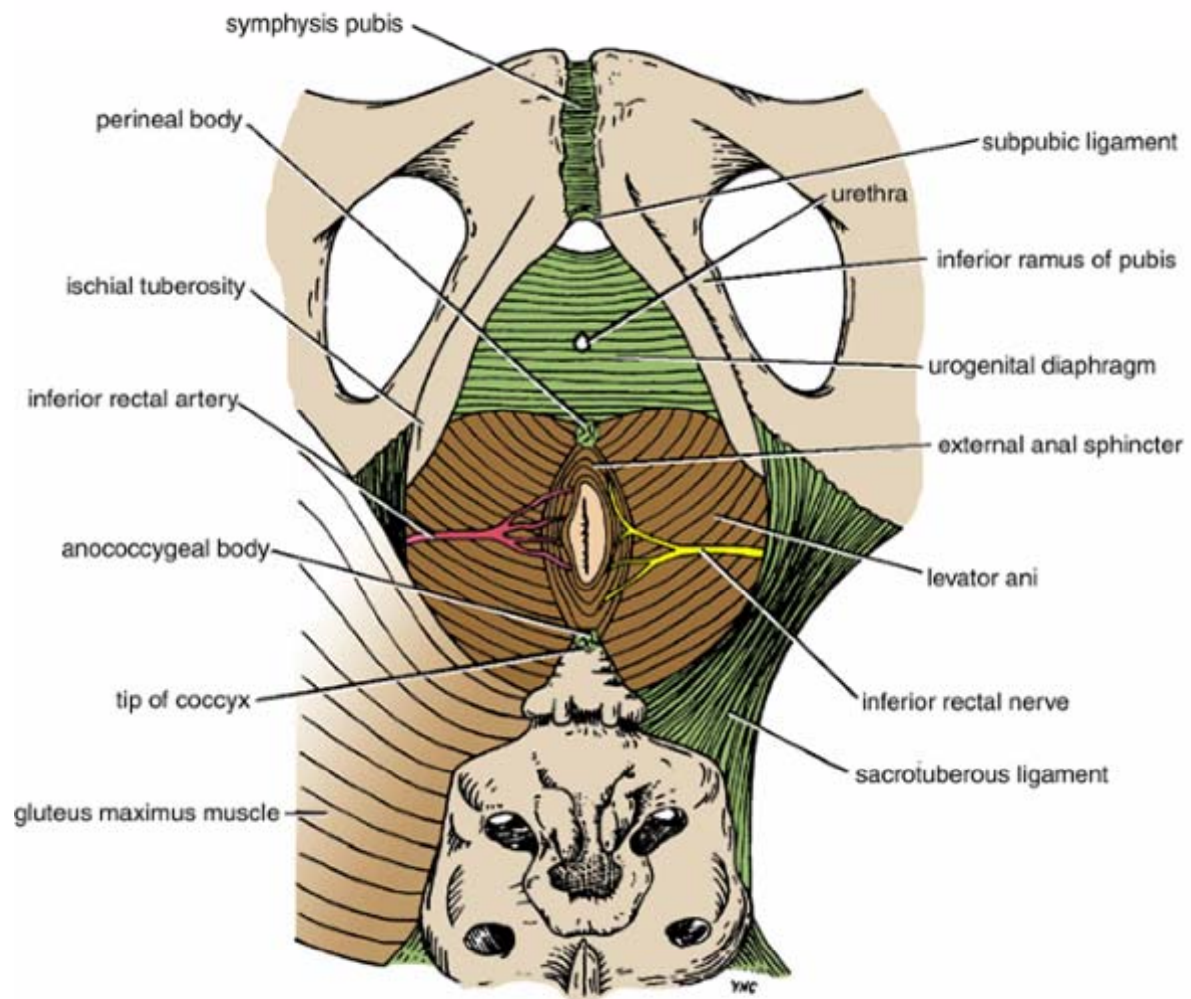
An imaginary line drawn between the two ischial tuberosities divides perineum into anterior and posterior triangles

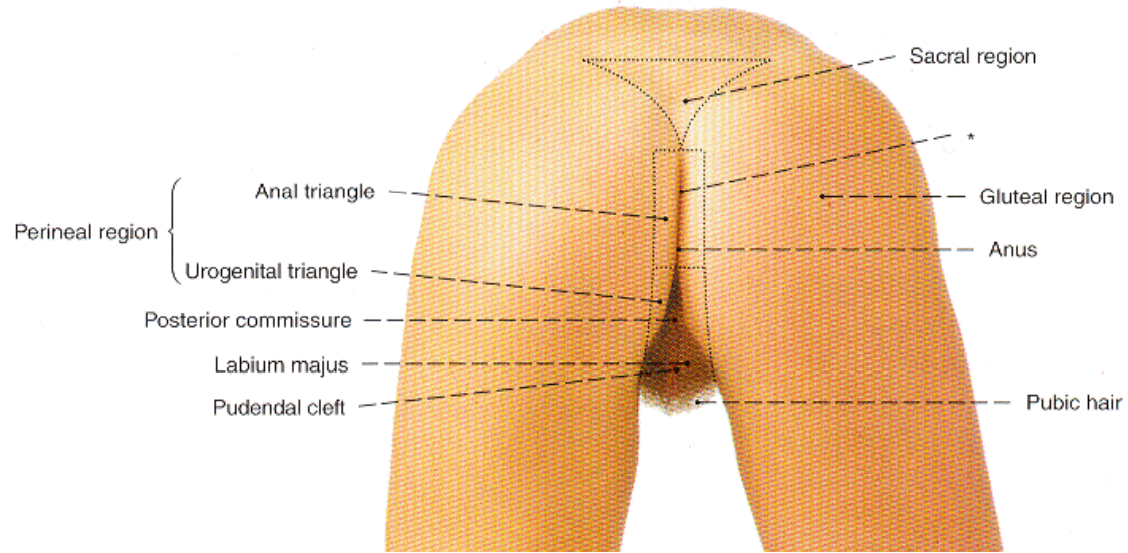
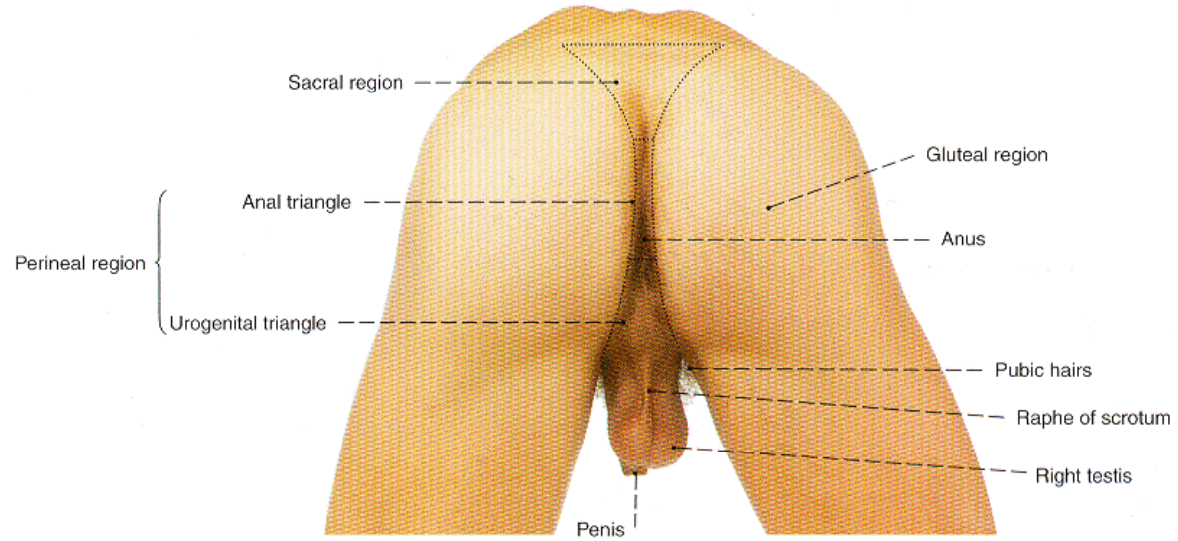
- Urogenital region 尿生殖区 (anterior) — differs in male and female
- Anal region 肛区 (posterior) — similar in both sexes

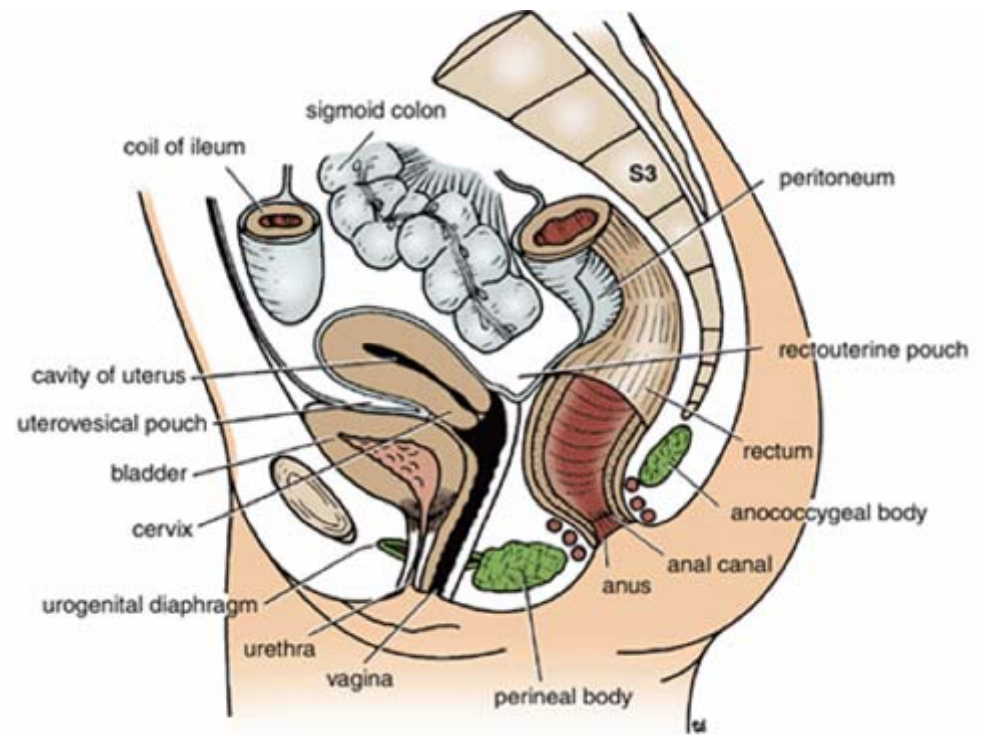
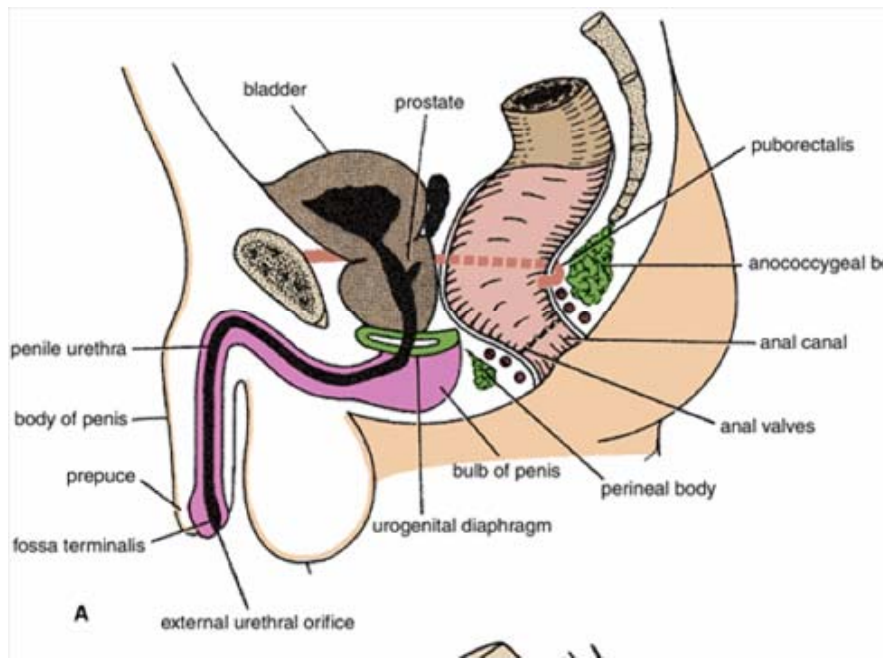




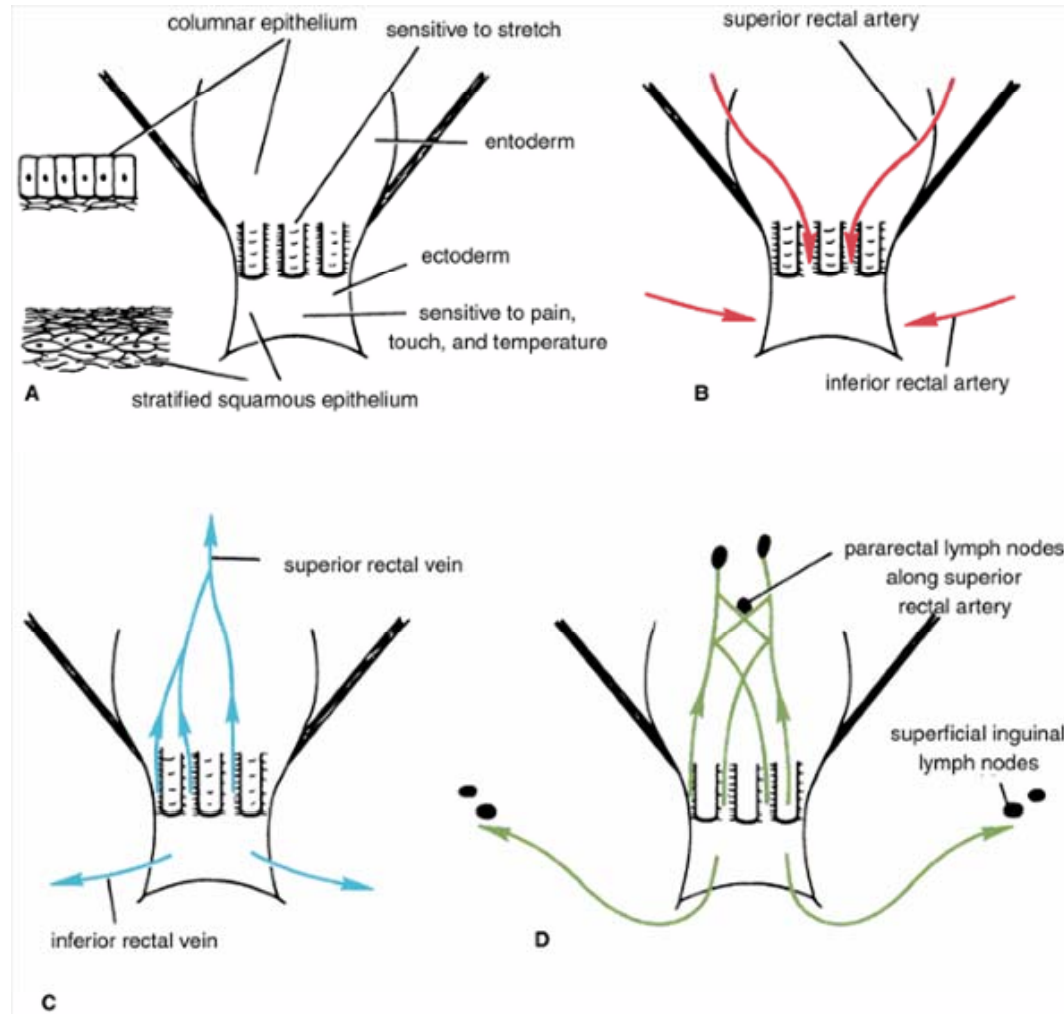








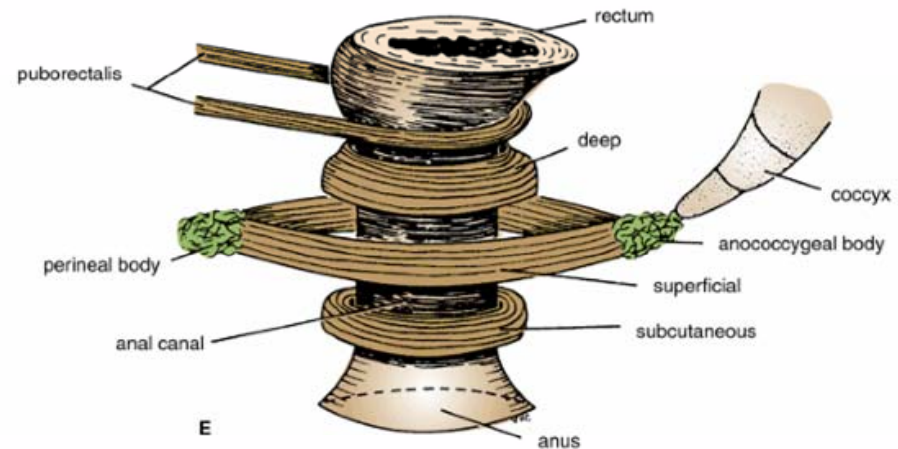
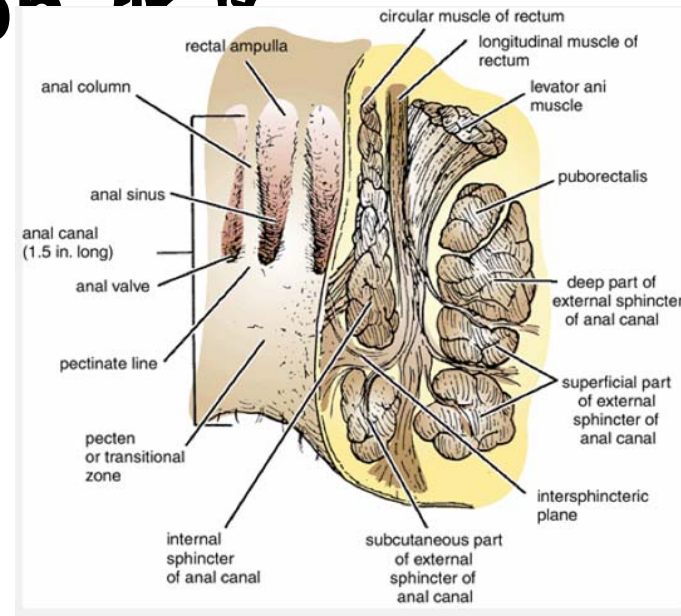
Anal region 肛区

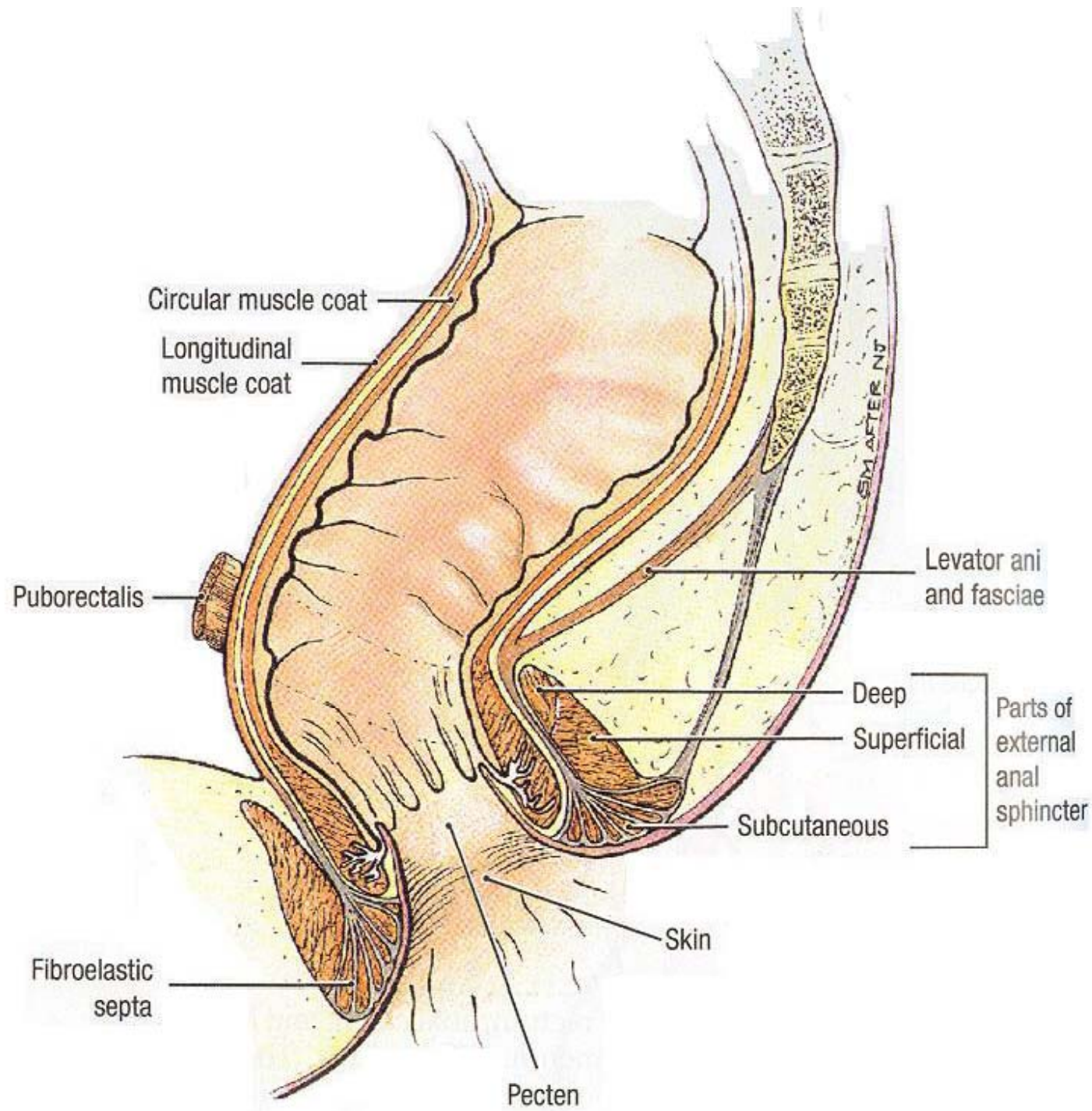


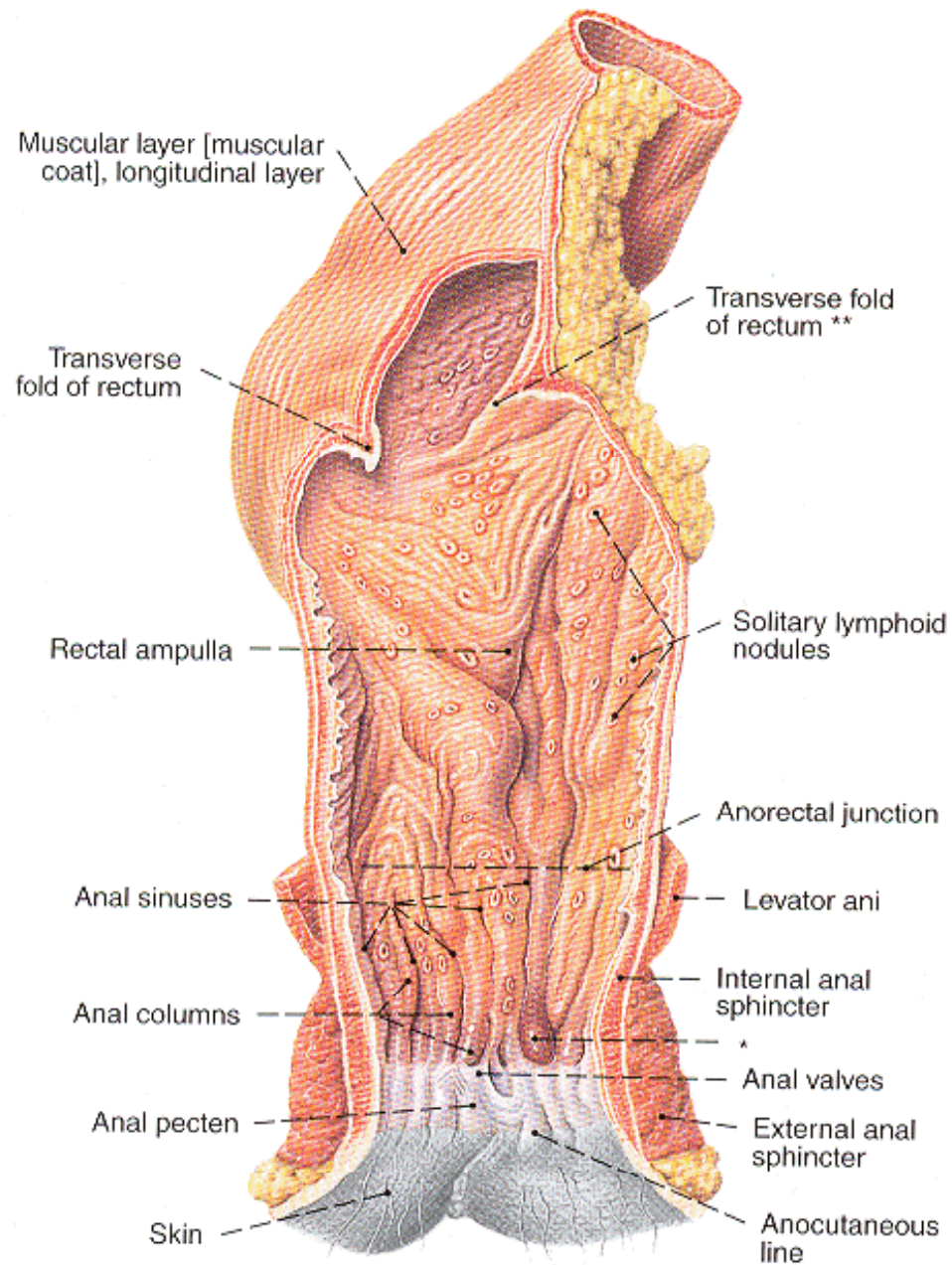
Anal region 肛区

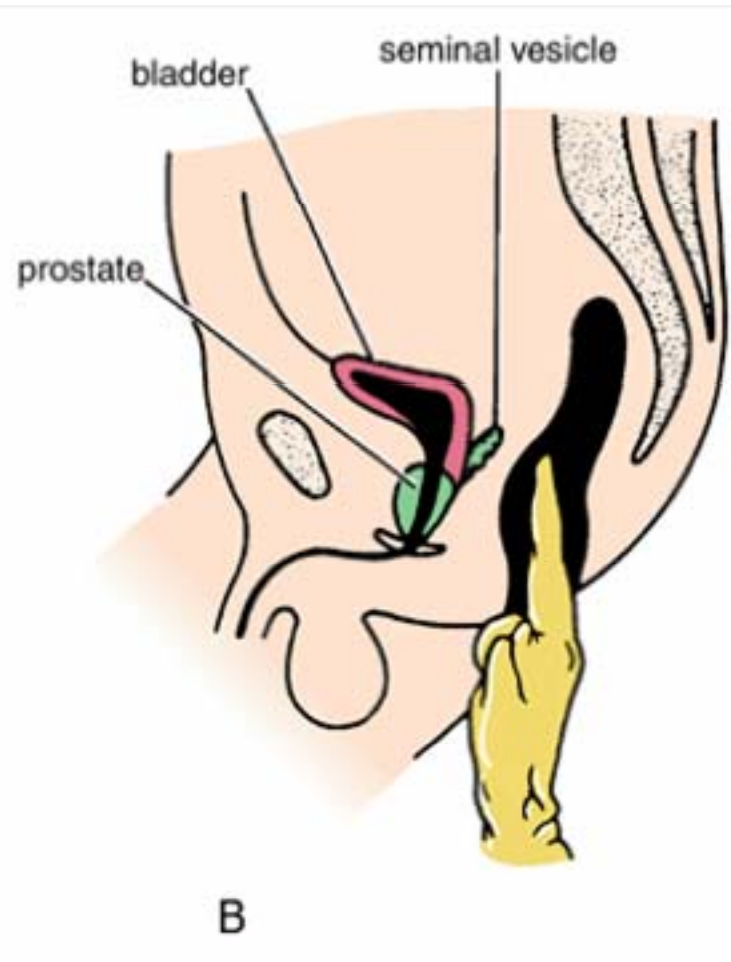
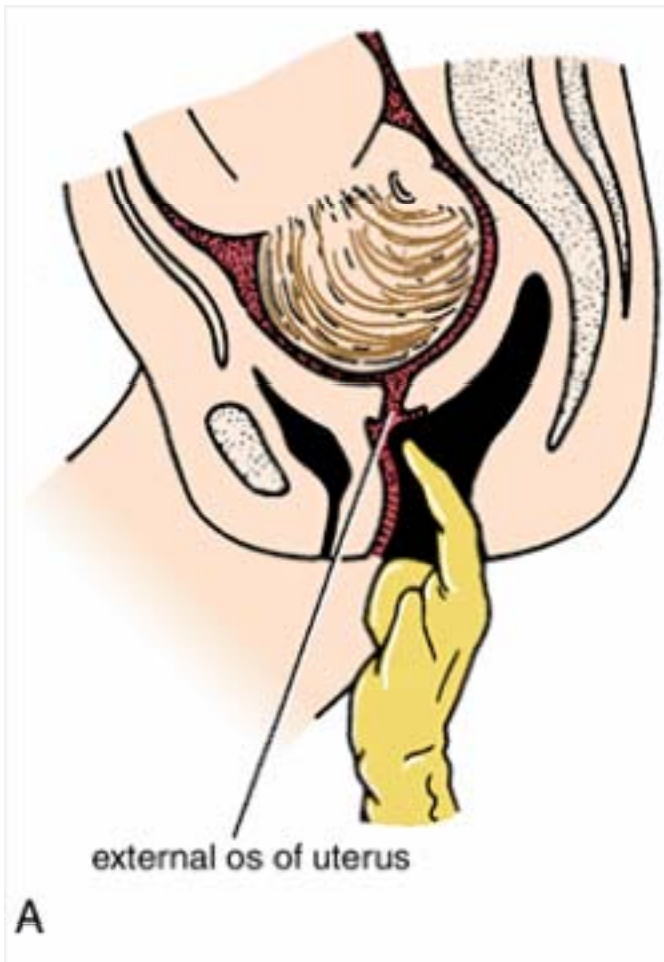
Anal sphincters 肛门括约肌

- Internal
 - Smooth muscle (thickened circular muscle coat)
 - Surrounds upper two-thirds of anal canal
 - Autonomic nerve supply
- External
 - Striated muscle
 - Surrounds lower two-thirds of anal canal
 - Three parts—subcutaneous, superficial and deep
 - Innervation by anal nerves of pudendal nerve and branches of S4









Anteriorly

In the male:

Opposite the terminal phalanx are the contents of the rectovesical pouch, the posterior surface of the bladder, the seminal vesicles, and the vasa deferentia Opposite the middle phalanx are the rectoprostatic fascia and the prostate.

Opposite the proximal phalanx are the perineal body, the urogenital diaphragm, and the bulb of the penis.

In the female:

Opposite the terminal phalanx are the rectouterine pouch, the vagina, and the cervix.

Opposite the middle phalanx are the urogenital diaphragm and the vagina.

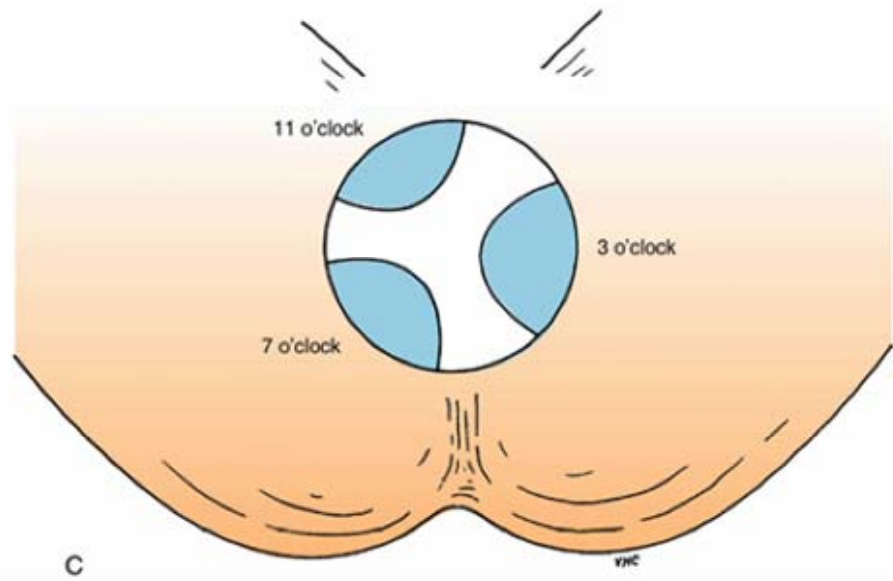
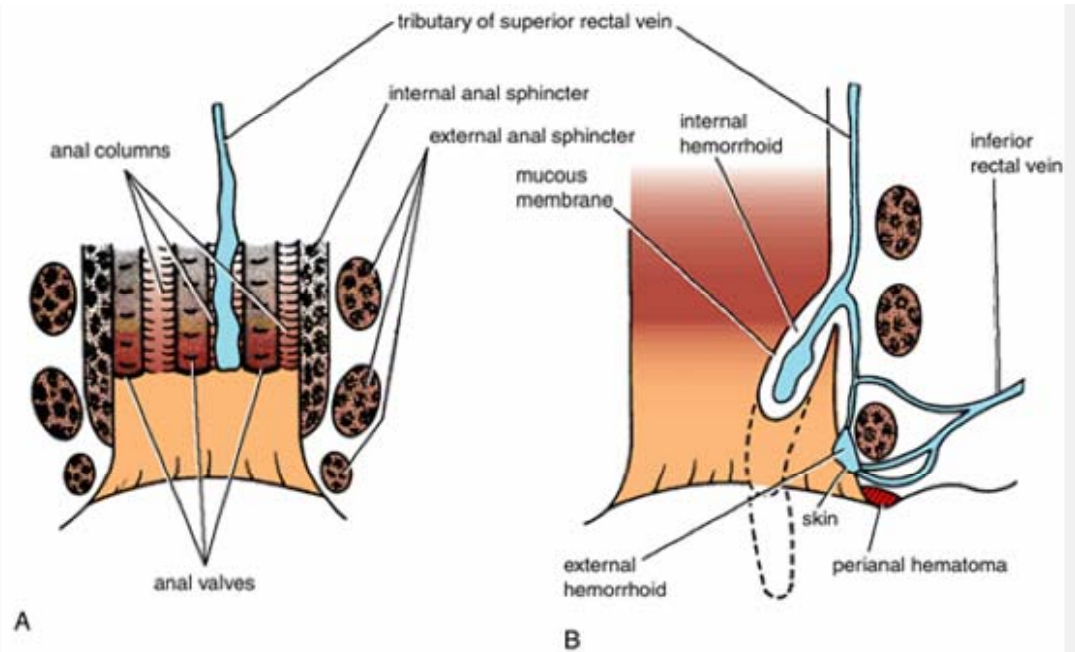
Opposite the proximal phalanx are the perineal body and the lower part of the vagina.

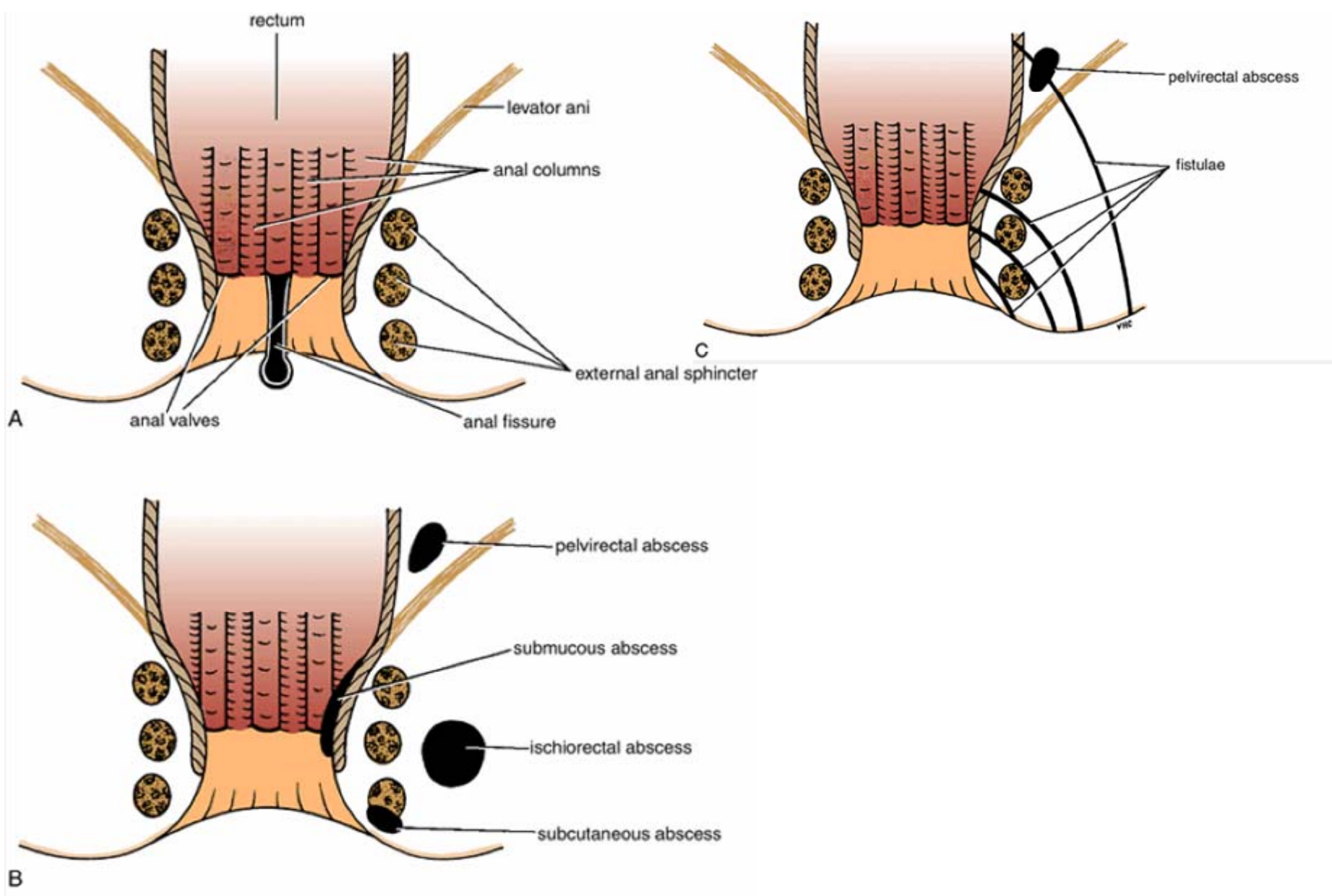
Posteriorly

The sacrum, coccyx, and anococcygeal body can be felt.

Laterally

The ischiorectal fossae and ischial spines can be palpated



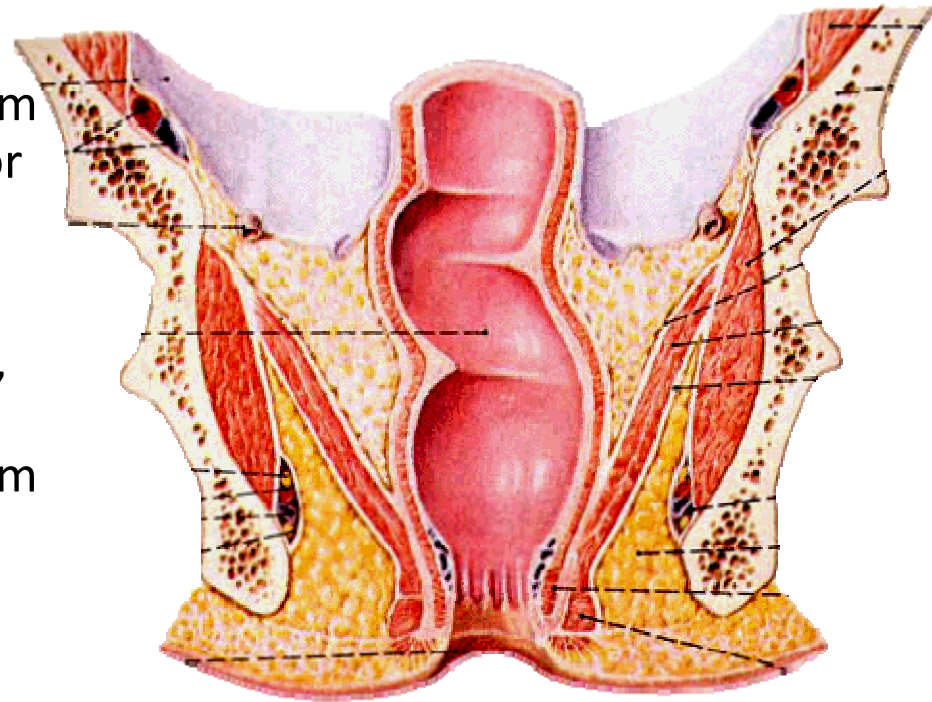


Ischioanal fossa 坐骨肛门窝

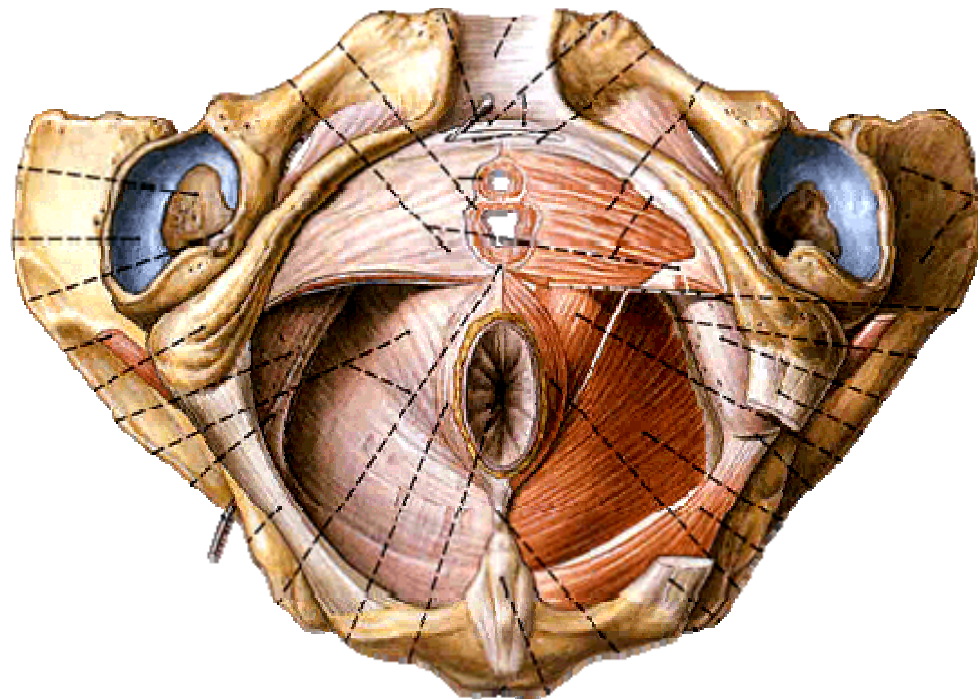
Paired, wedge-shaped, fat-filled spaces on either side of anal canal

Boundaries

- **Apex**—conjunctive area of inferior fascia of pelvic diaphragm and fascia covering the obturator internus
- **Base**—skin of anal region
- **Medial**—sphincter ani externus, levator ani, coccygeus and inferior fascia of pelvic diaphragm
- **Lateral**—ischial tuberosity, obturator internus and fascia



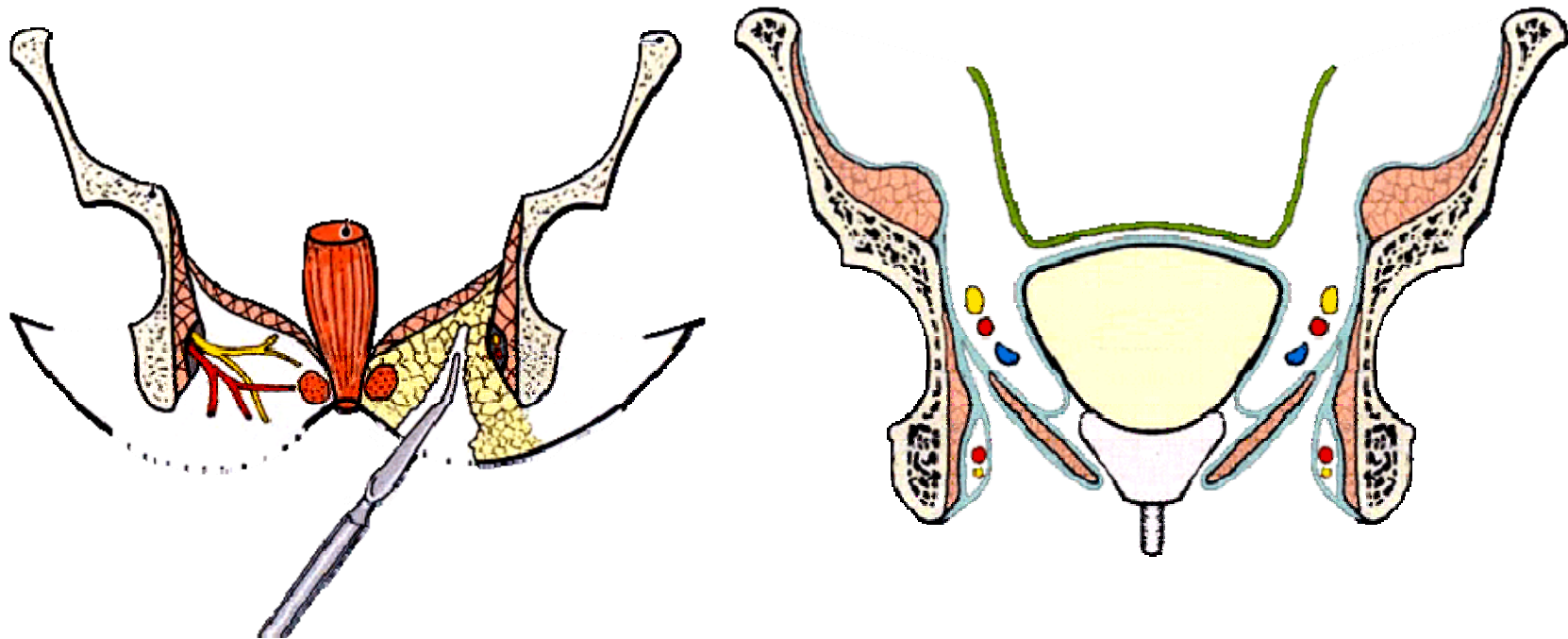
- **Anterior**
 - Posterior border of urogenital diaphragm
 - Forward projection of anterior recess of fossa between pelvic diaphragm above and urogenital diaphragm below
- **Posterior**
 - backward projection of posterior recess of fossa between gluteus maximus, sacrotuberous ligament and coccyx



Contents

- Fat
- Internal pudendal artery and vein and their rectal branches
- Pudendal nerve and its inferior rectal branch

Vessels and nerves enter from gluteal region, through lesser sciatic foramen, travel on a fascial canal—the pudendal canal 阴部管 (Alcock's)—on the lateral wall of fossa, and extend forward into urogenital region



Urogenital region 尿生殖区

Superficial fascia has two layers

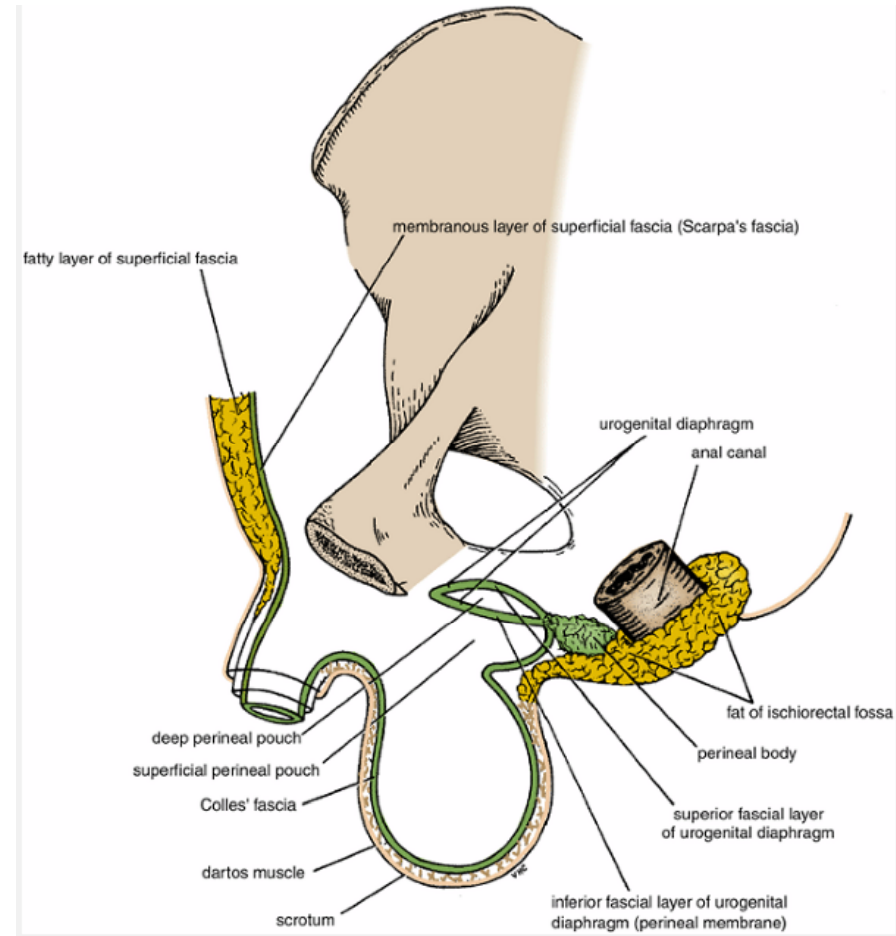
- The superficial or fatty layer
- The deep or membranous layer (superficial fascia of perineum 会阴浅筋膜 or Colles fascia)

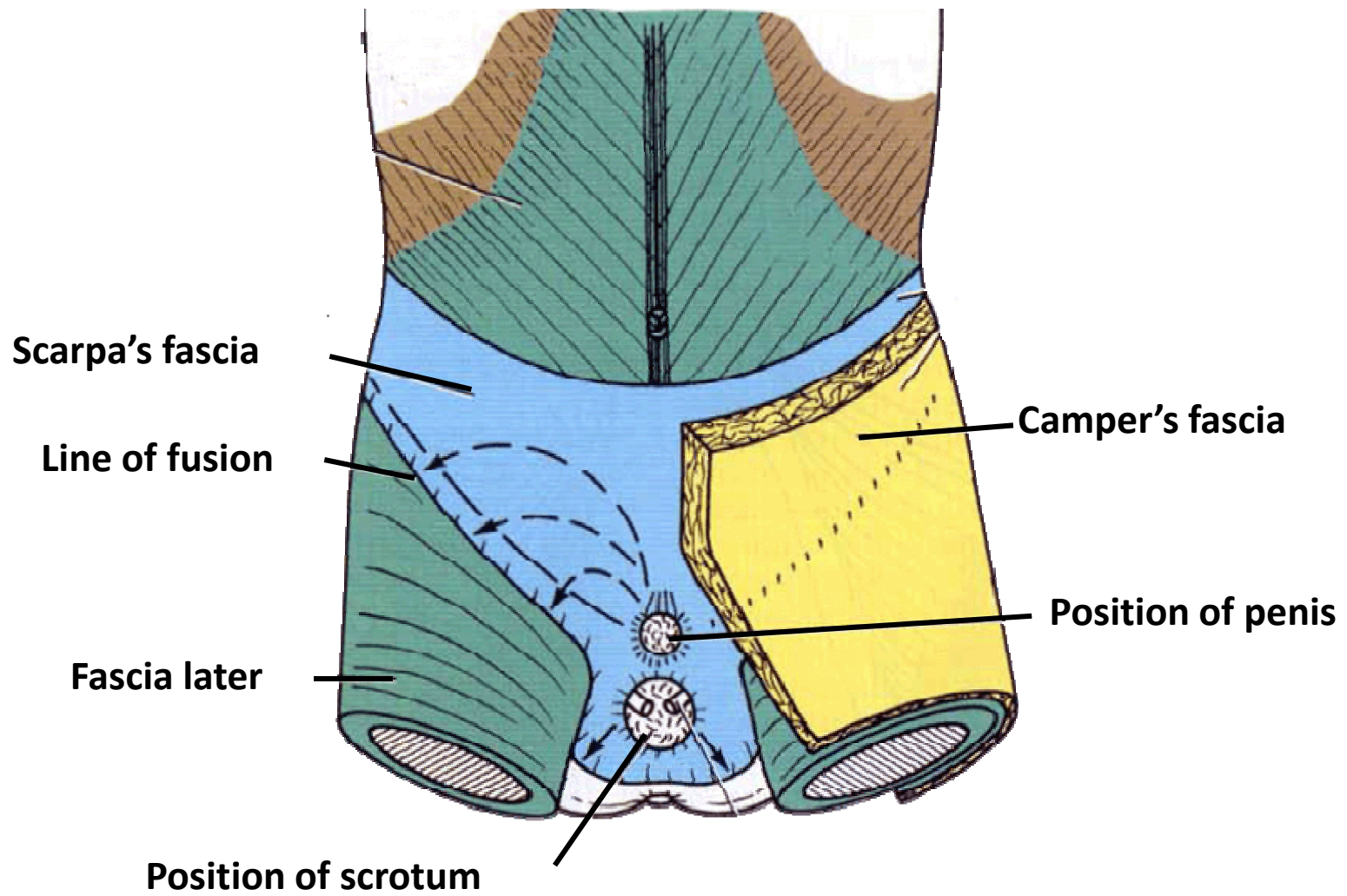
Anteriorly — it is continuous with:

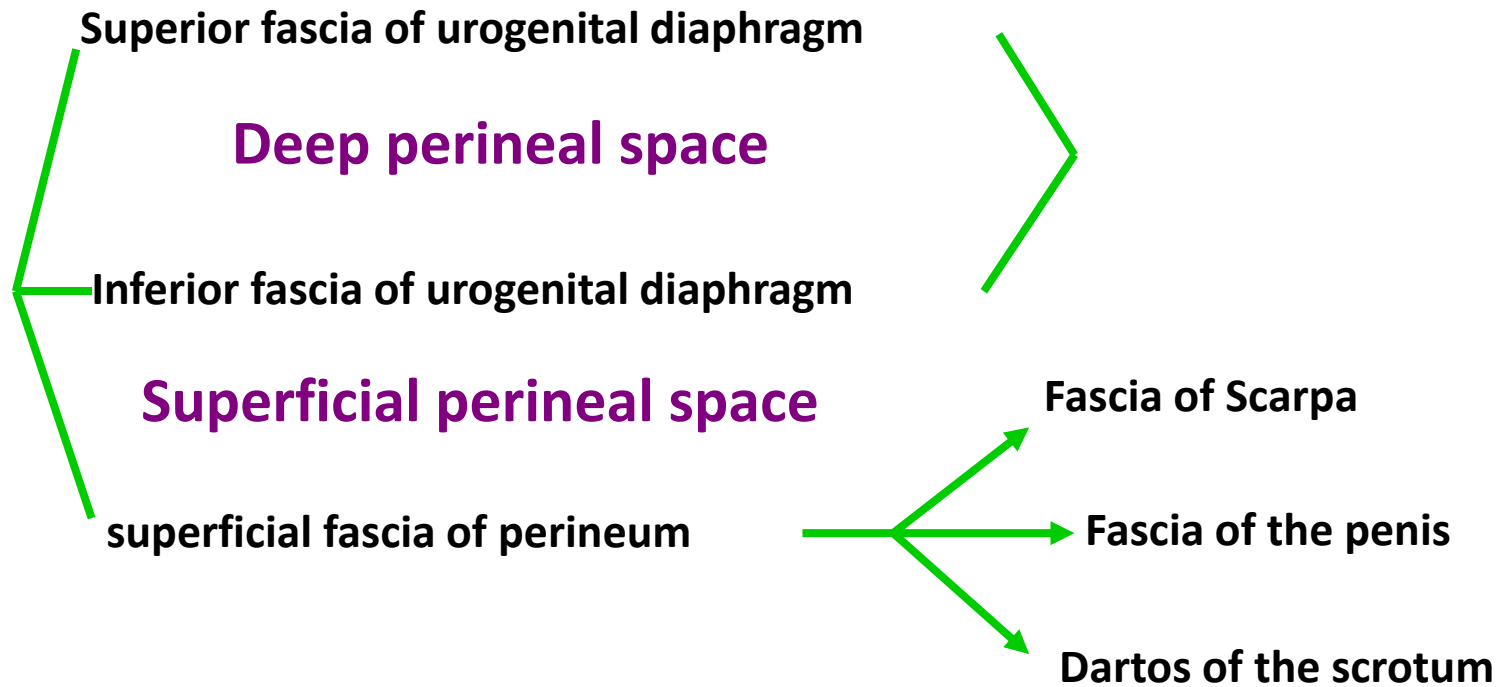
- Dartos of the scrotum
- Fascia of the penis
- Membranous layer of superficial fascia of the abdominal wall known as the fascia of Scarpa

Deep fascia has two layers

- Superior fascia of urogenital diaphragm 尿生殖隔上筋膜
- Inferior fascia of urogenital diaphragm 尿生殖隔下筋膜







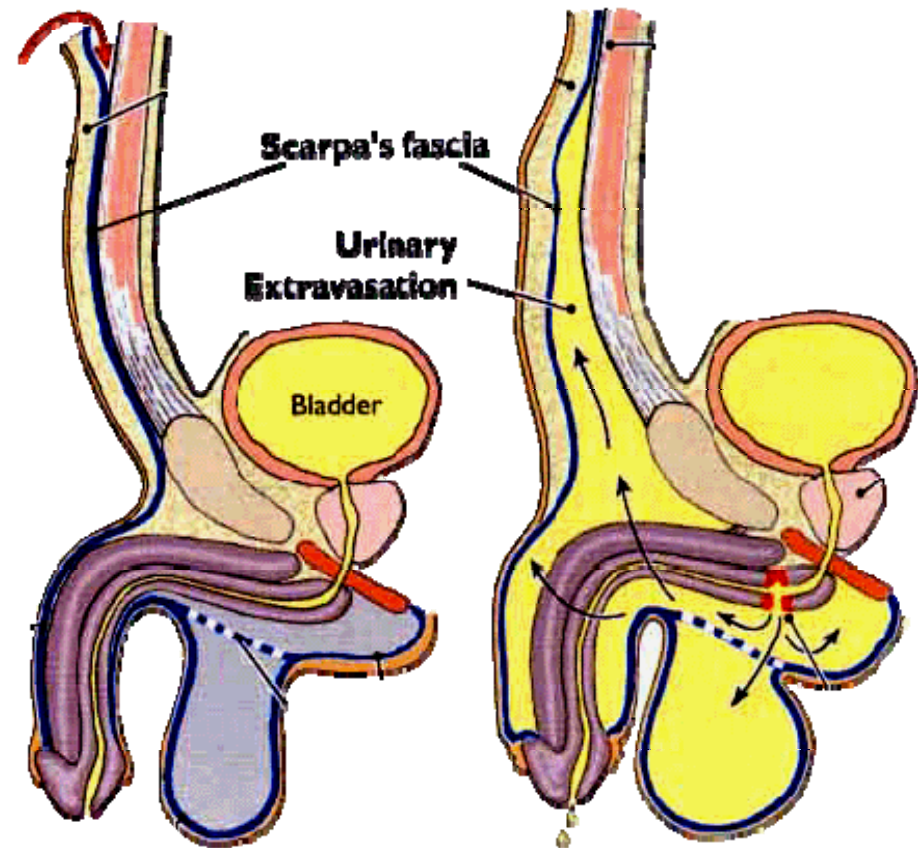
会阴深隙：上、下两层膜，中间夹着肉，四周均封闭，尿殖管穿过（如座垫）

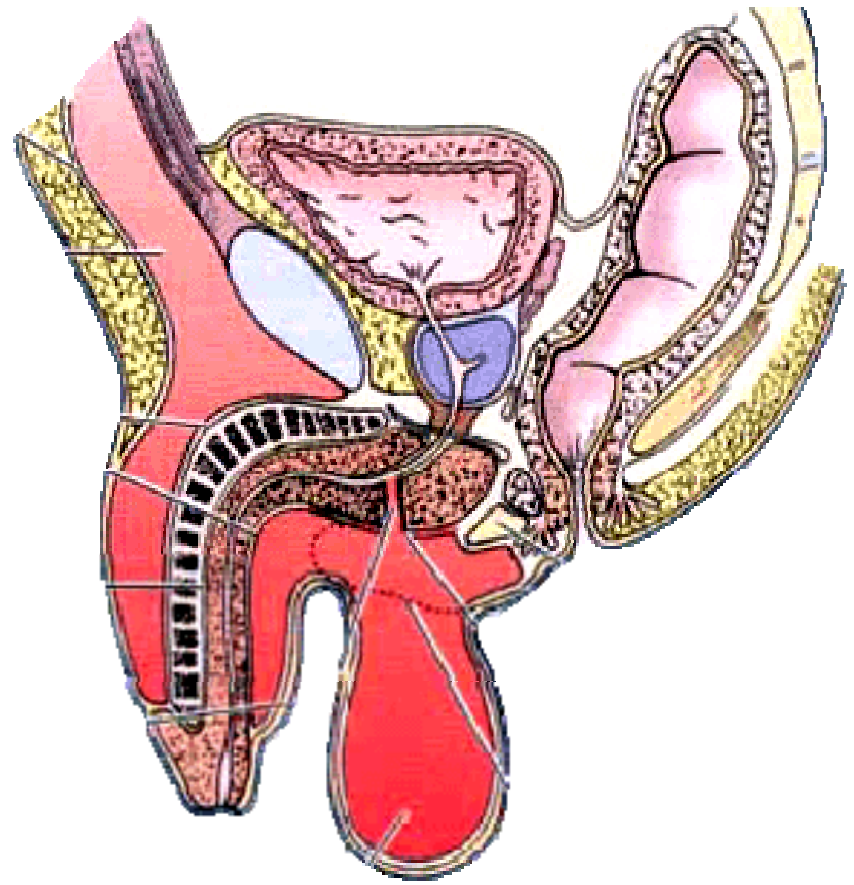
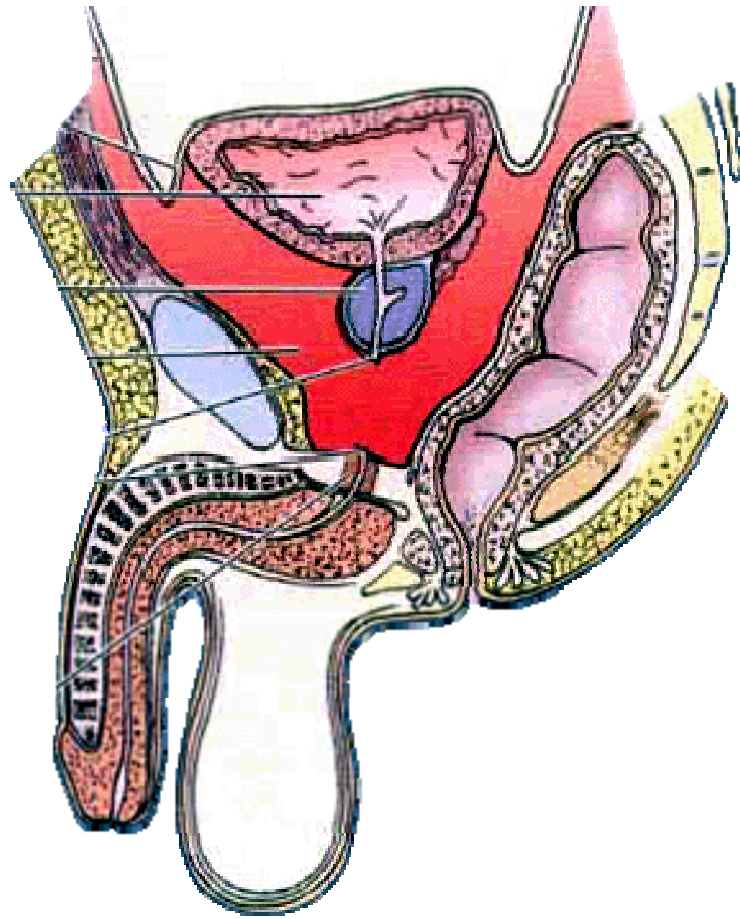
会阴浅隙：上、下两层膜，中间东西多，三边都封闭，前上方敞着（如口袋）

Superficial perineal space 会阴浅隙

Boundaries

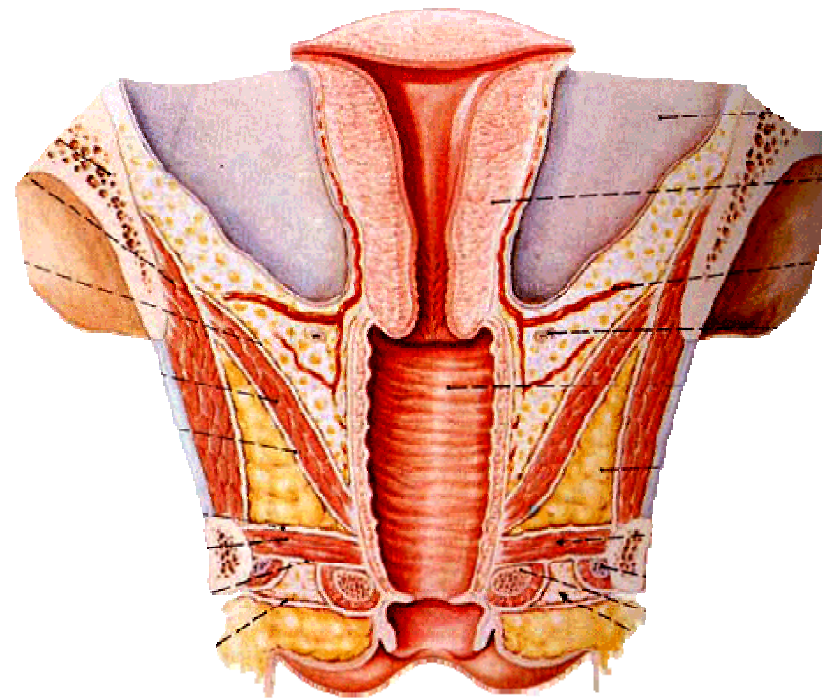
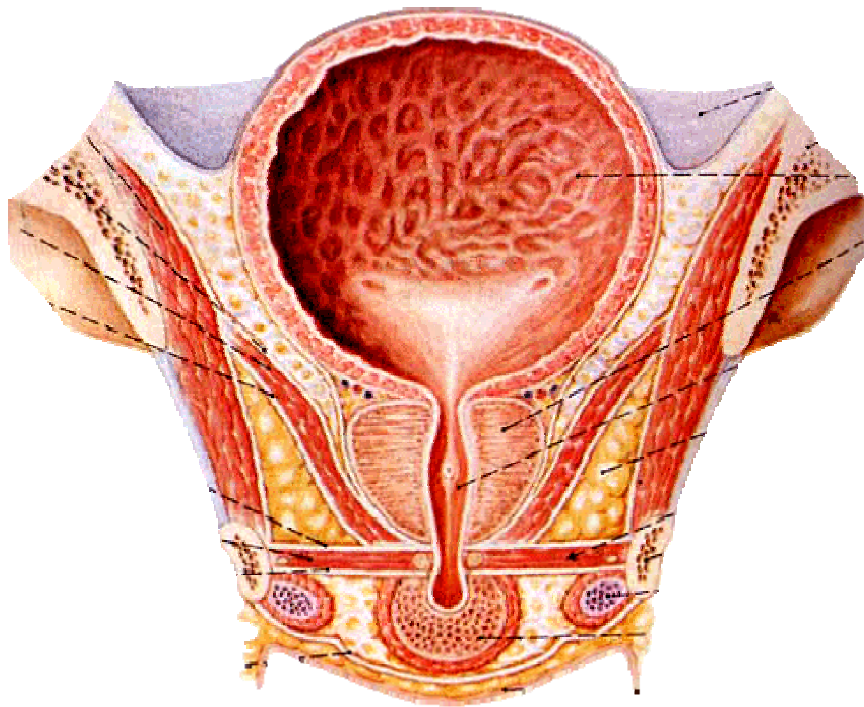
- Lies between inferior fascia of urogenital diaphragm and superficial fascia of perineum
- Space open anteriorly (In rupture of cavernous part of urethra, urine can extravasate from scrotum upward in front of symphysis pubis into anterior abdominal wall deep to membranous fascia of Scarpa)

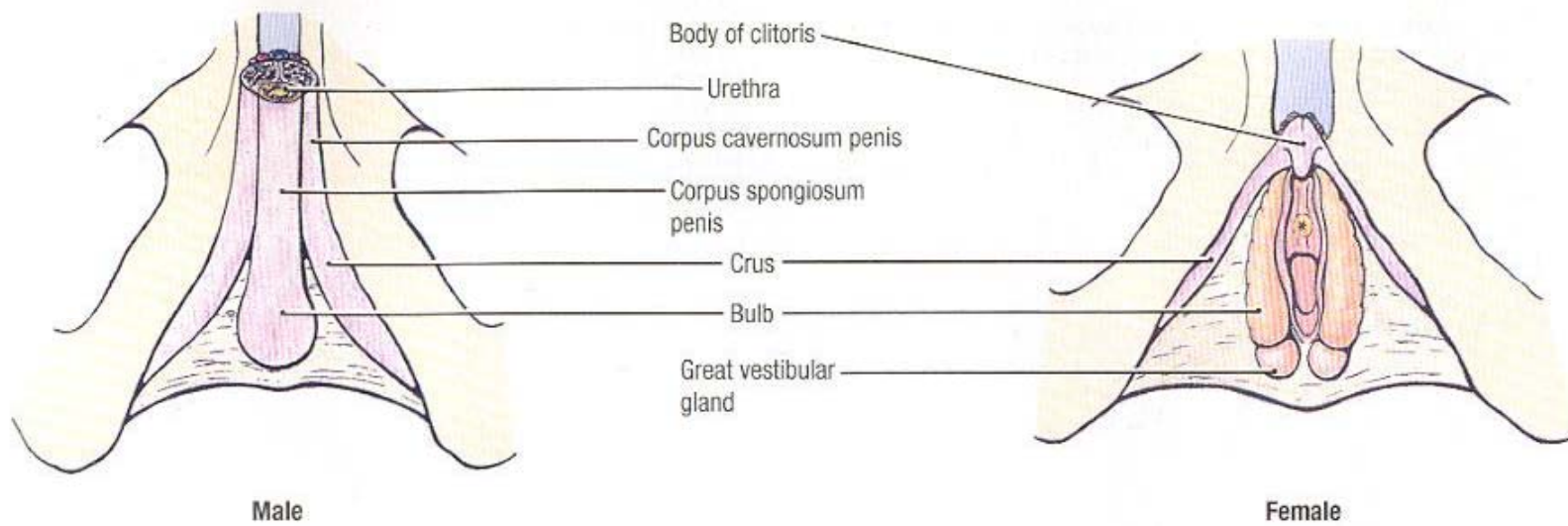
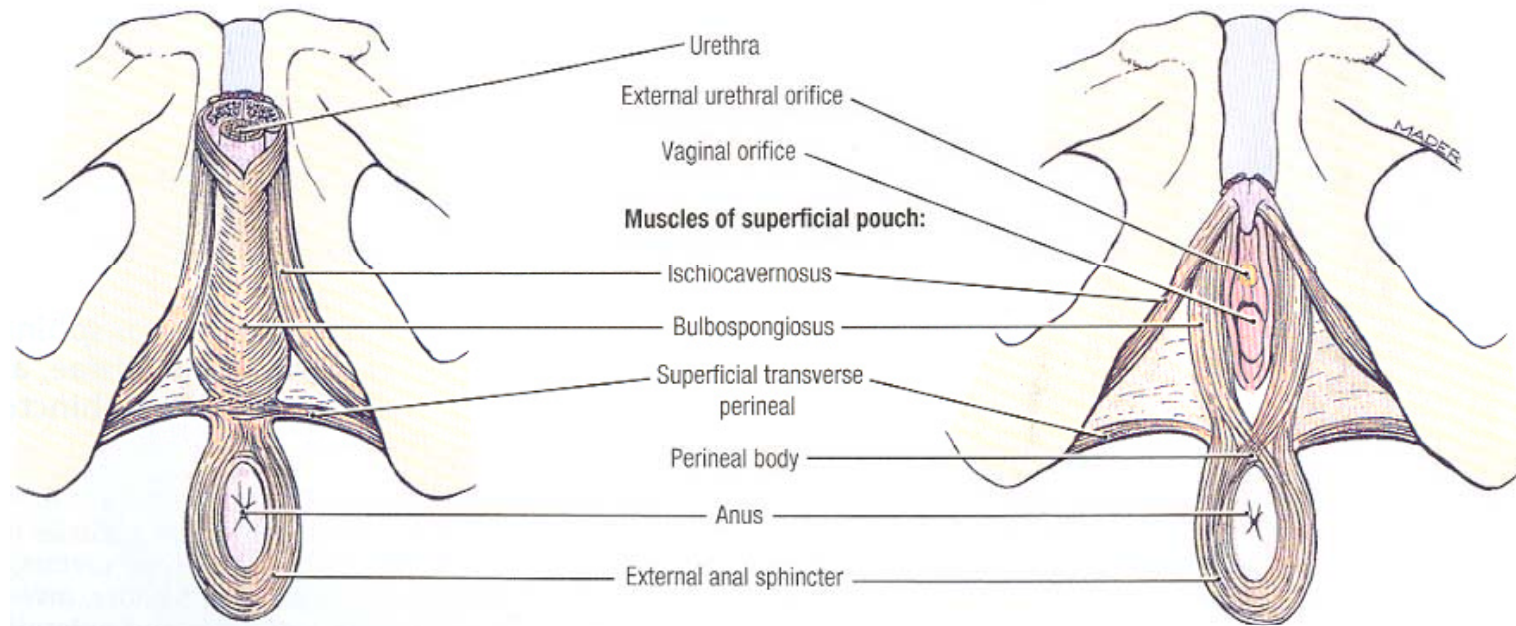




Contents

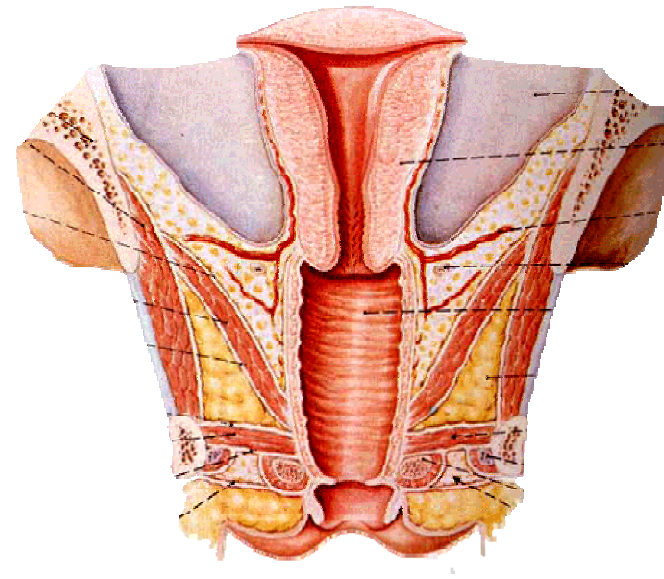
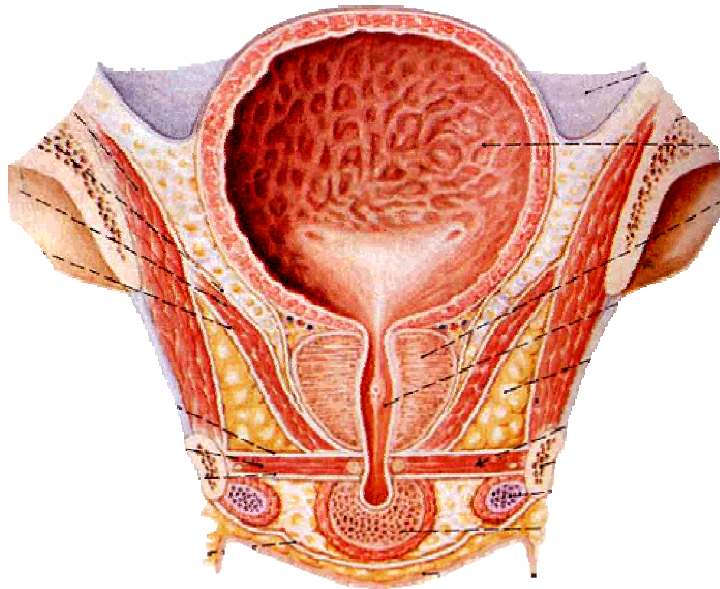
- Posterior part—superficial transverse perineal muscle
- Lateral part—crus penis (male), crus of clitoris (female) and ischiocavernosus covering them
- Central part—bulb of urethra (male), bulb of vestibule (female) and bulbocavernosus covering them
- Branches of pudendal nerves and internal pudendal vessels





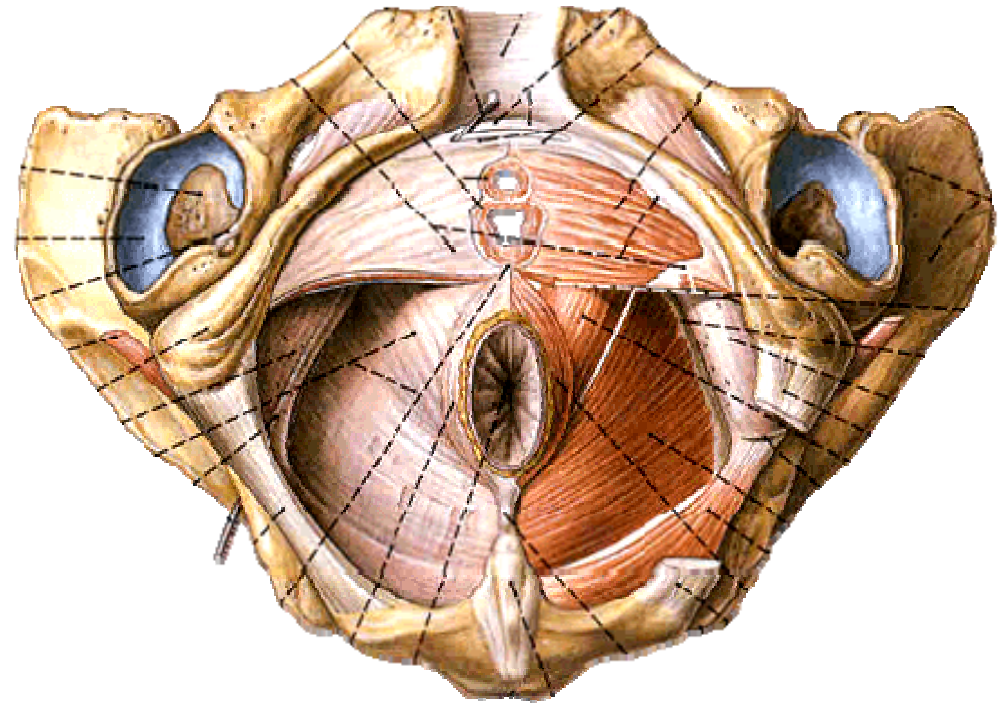
Deep perineal space 会阴深隙

- Lies between superior and inferior fascia of urogenital diaphragm
- Contents
 - Deep transverse perineal muscle
 - Bulbourethral gland (male)
 - Sphincter of urethra 尿道括约肌 (male), urethrovaginal sphincter 尿道阴道括约肌
 - Arteries, veins and nerves



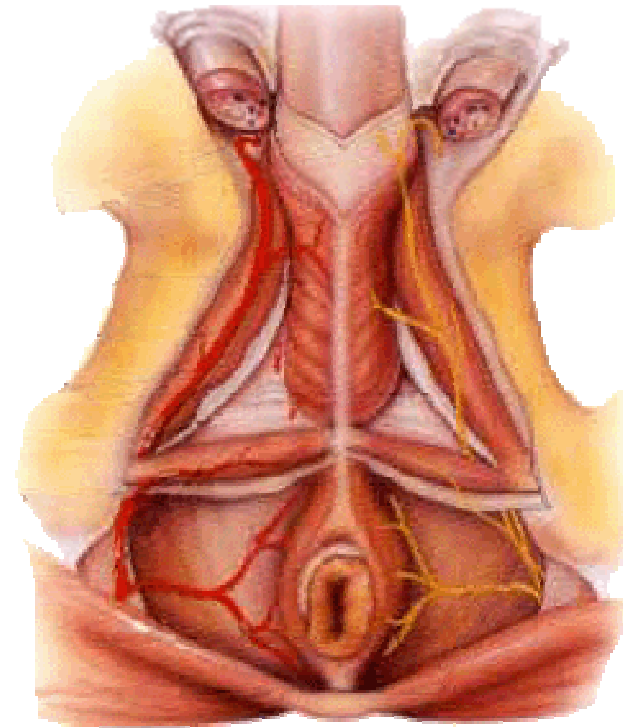
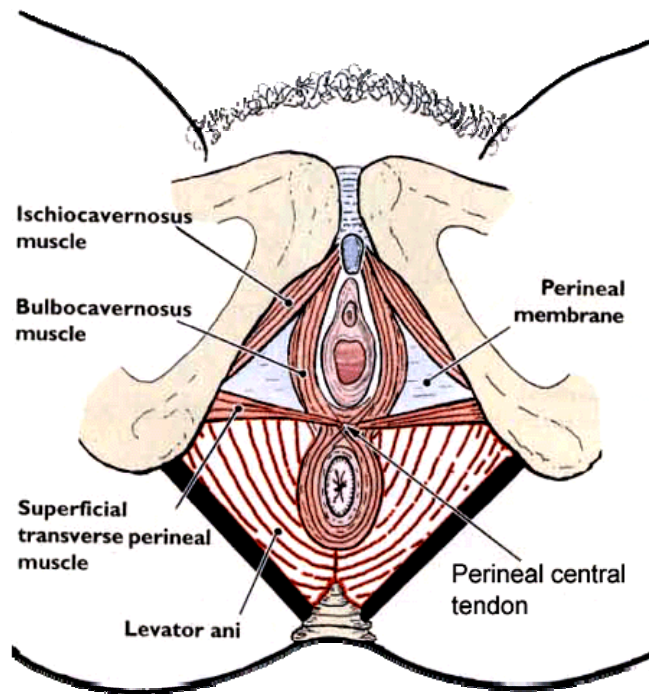
Urogenital diaphragm 尿生殖隔

- Triangular in shape
- Attached laterally to ischiopubic rami and ischial tuberosities
- Formed by sphincter of urethra, deep transverse perineal muscle, superior and inferior fascia of urogenital diaphragm

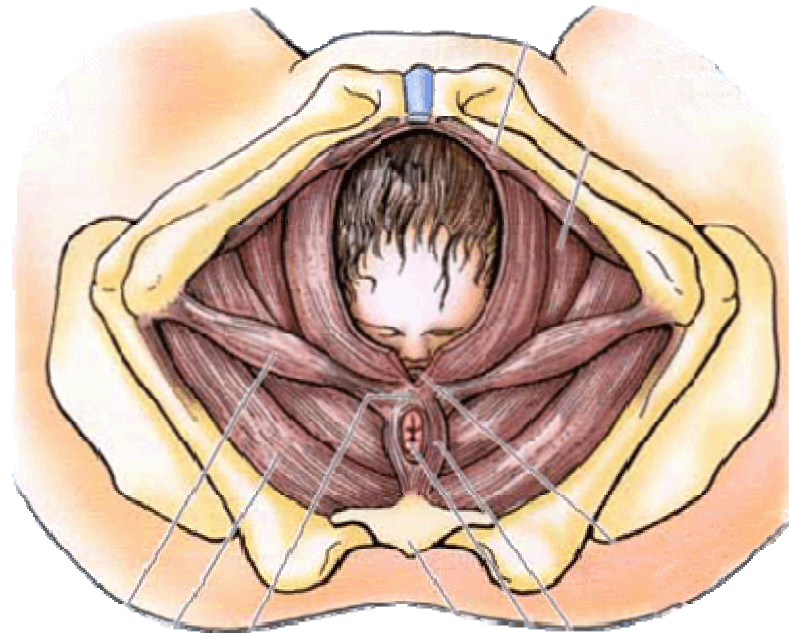


Perineal central tendon 会阴中心腱

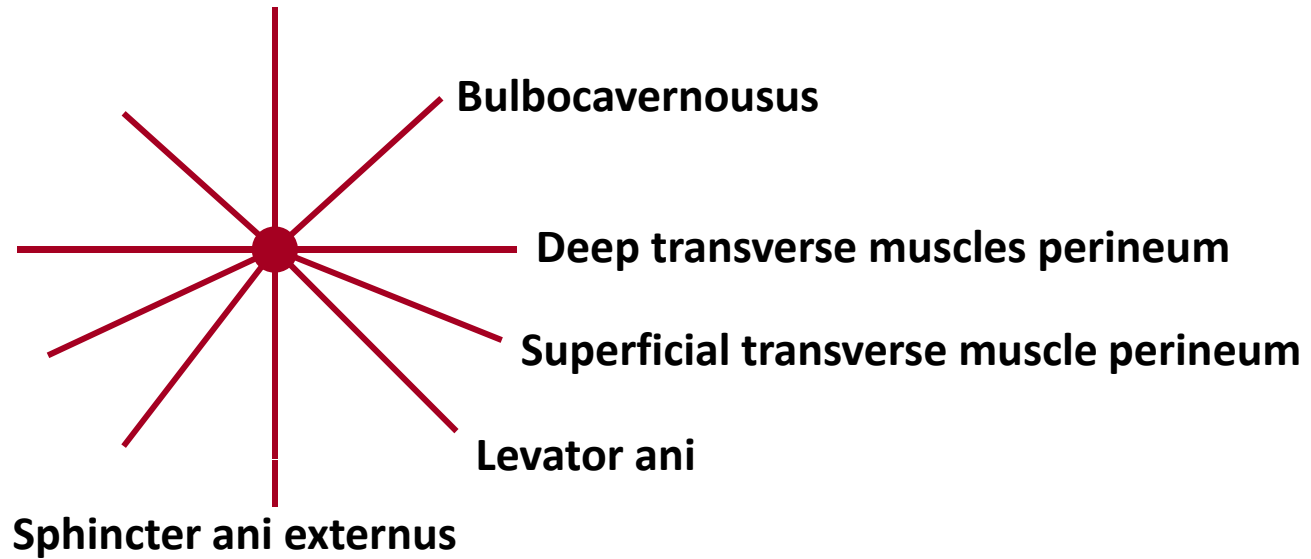
- Wedge-shaped fibromuscular mass
- In female, between anal canal and lower end of vagina,
- In male, between anal canal and root of penis
- It is larger in the female than in the male and give support to the posterior wall of the vagina

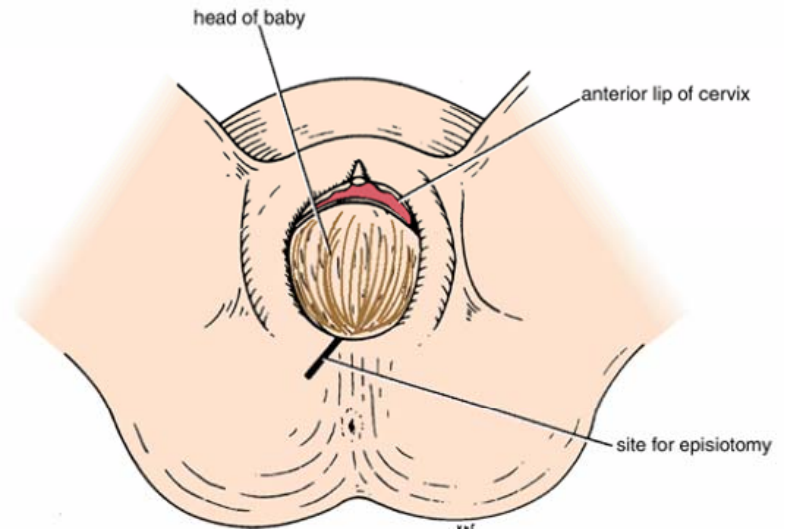
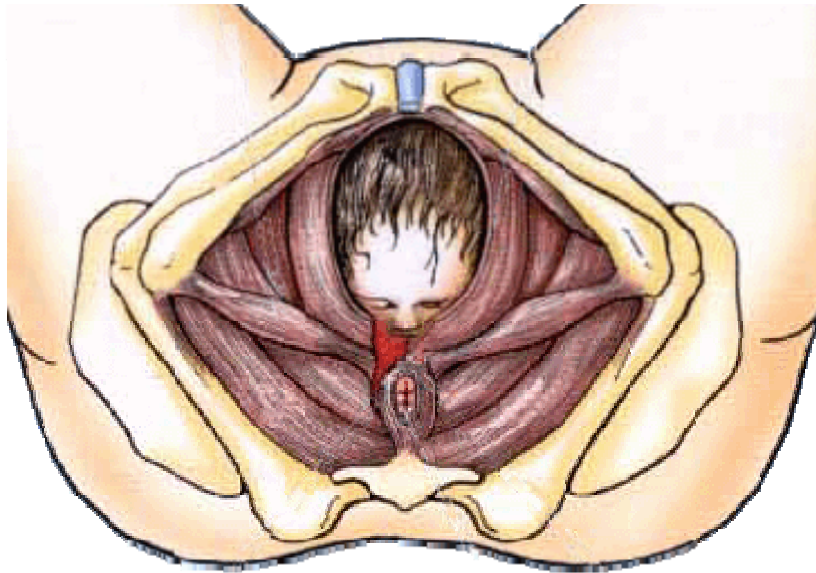
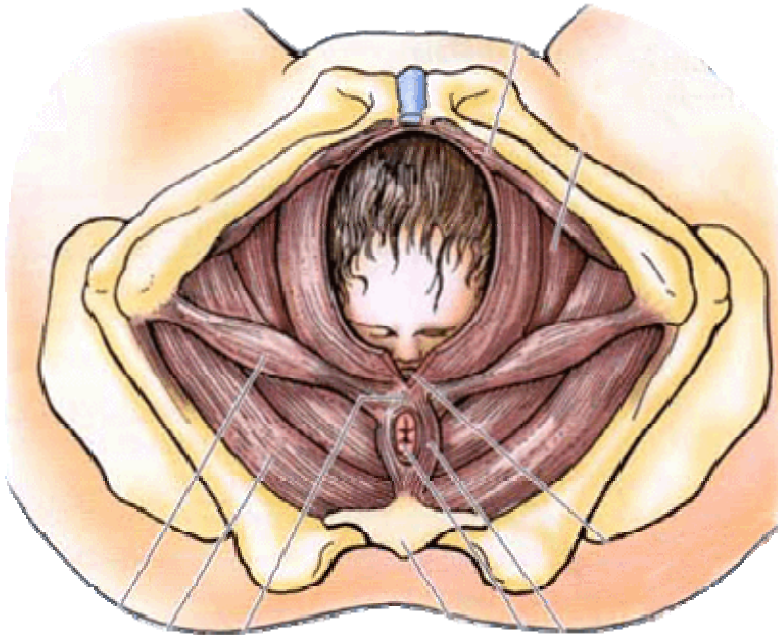


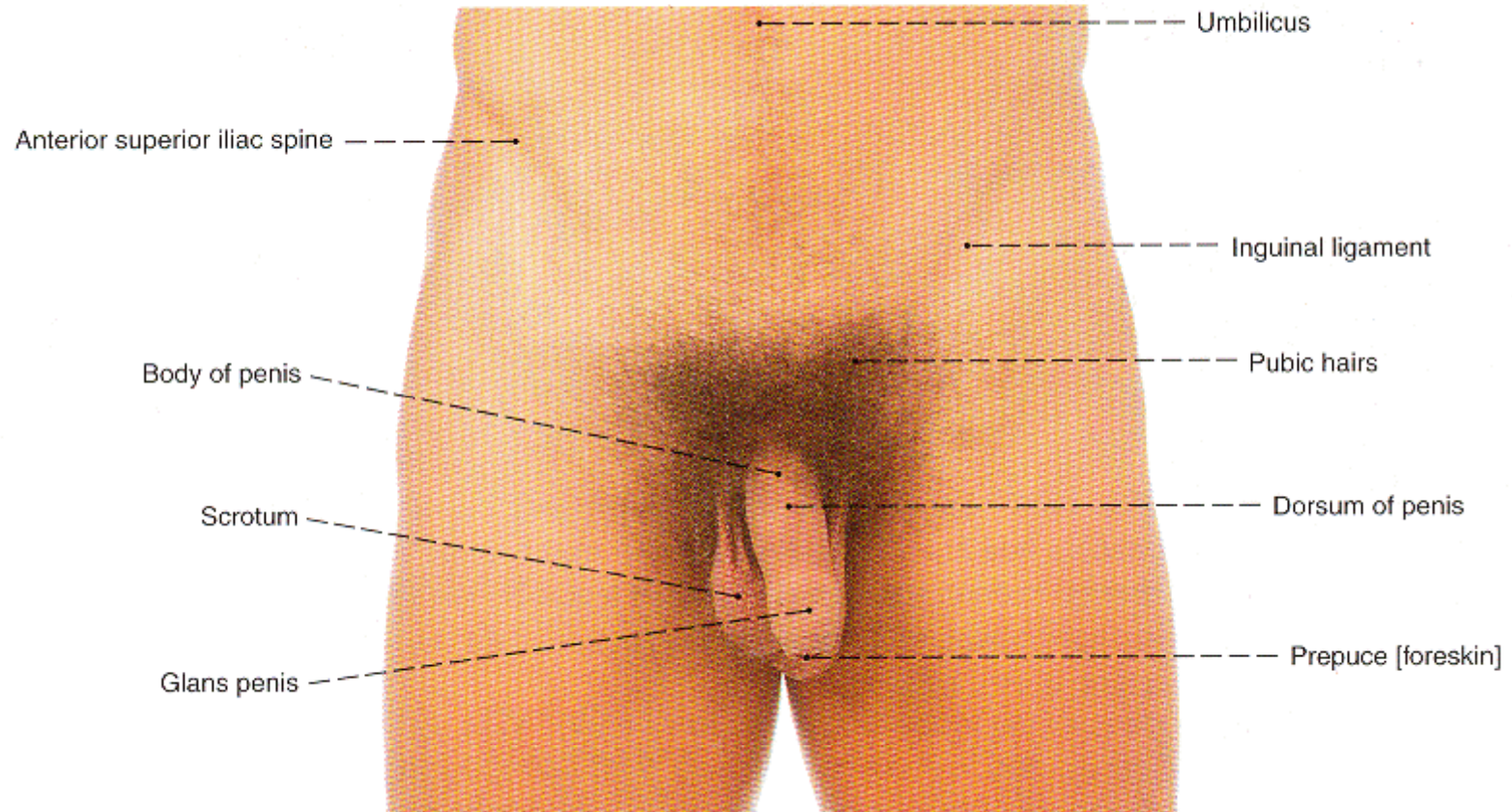
- Origin or insertion of several small muscles and insertion of part of pelvic diaphragm
- These muscles are:
 - Sphincter ani externus
 - Levator ani
 - Superficial transverse muscle perineum
 - Deep transverse muscles perineum
 - Bulbocavernosus
 - Sphincter of urethra (male) or urethrovaginal sphincter (female)

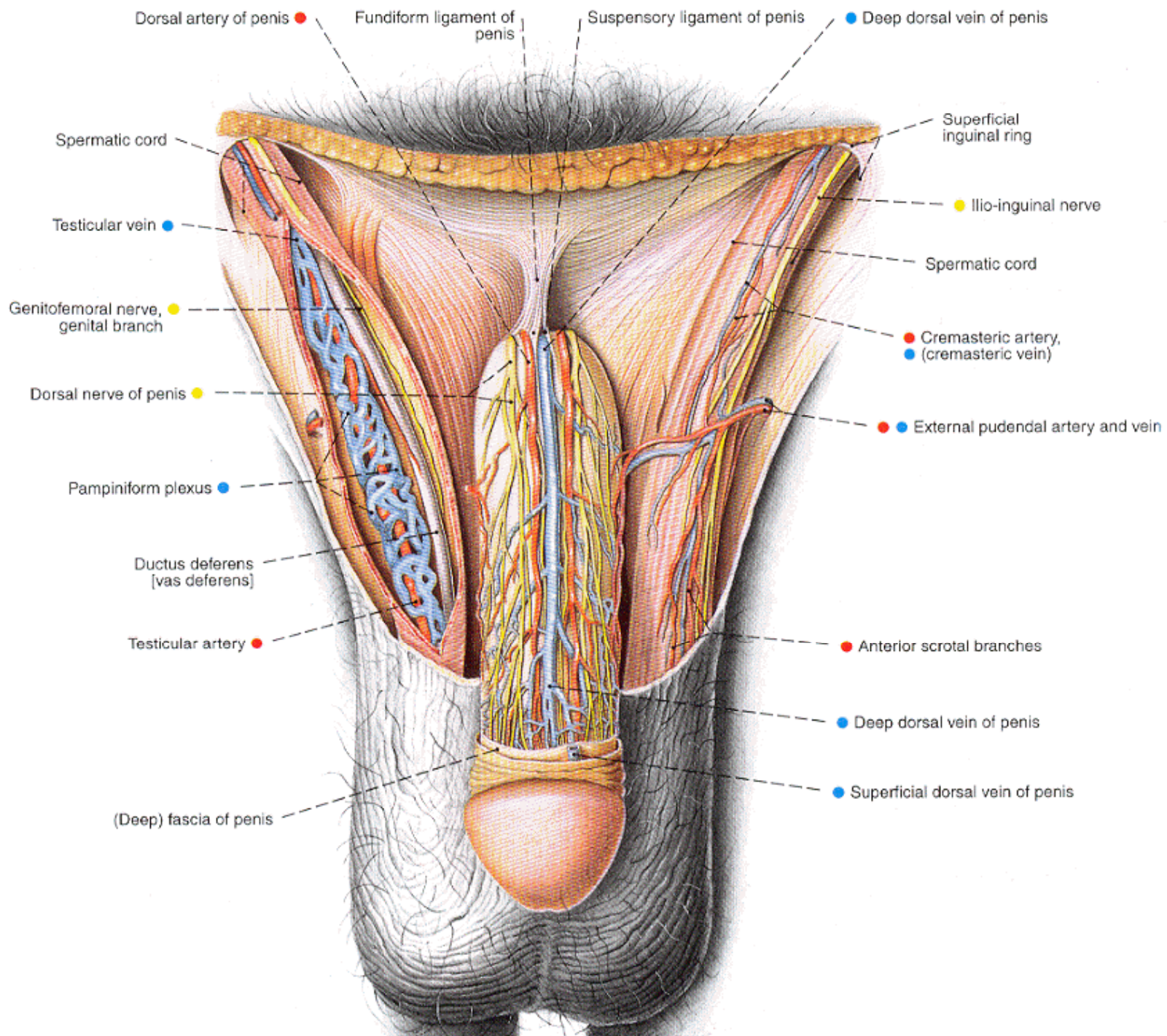


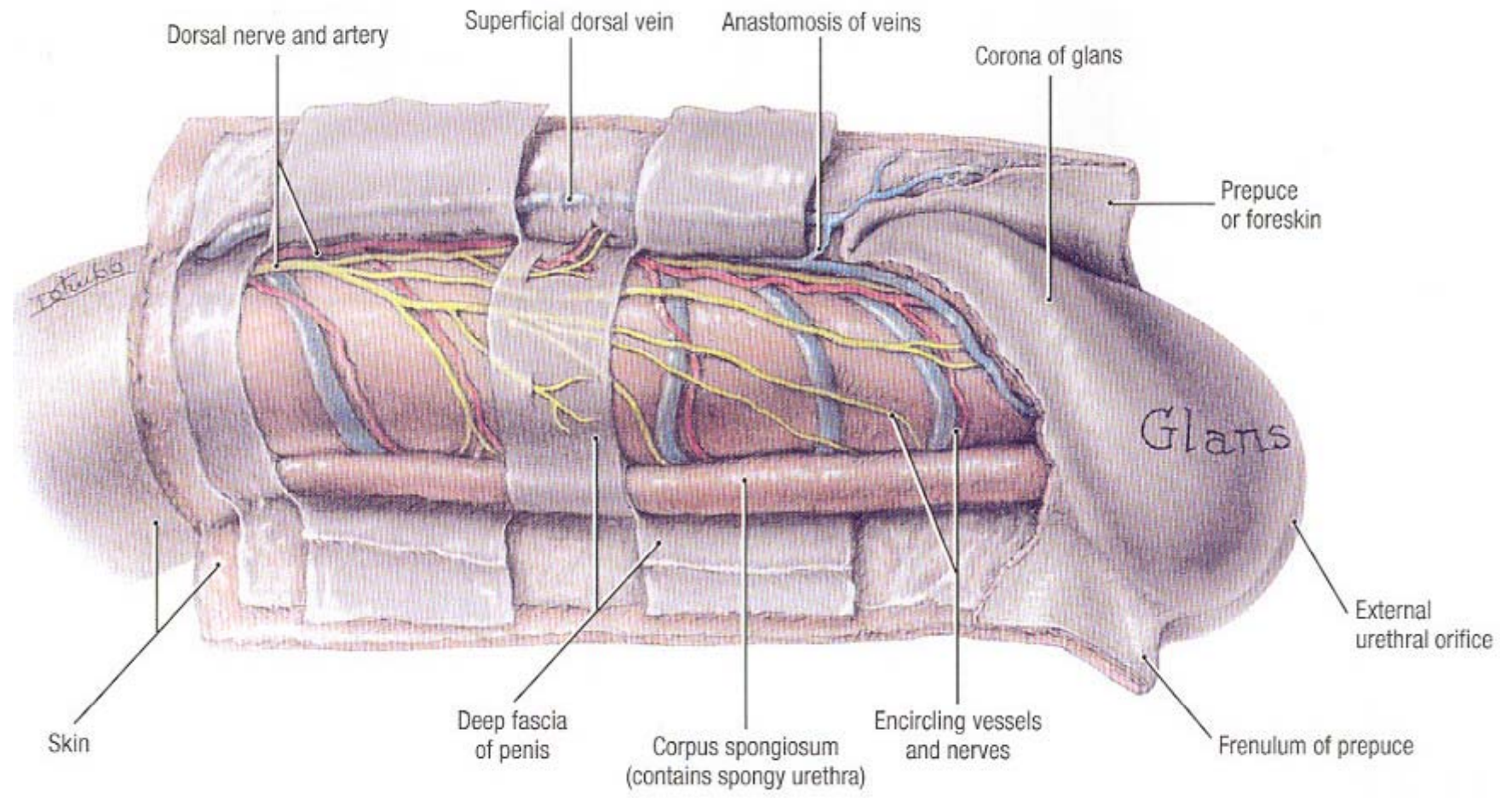
**Sphincter of urethra (male) or
urethrovaginal sphincter (female)**

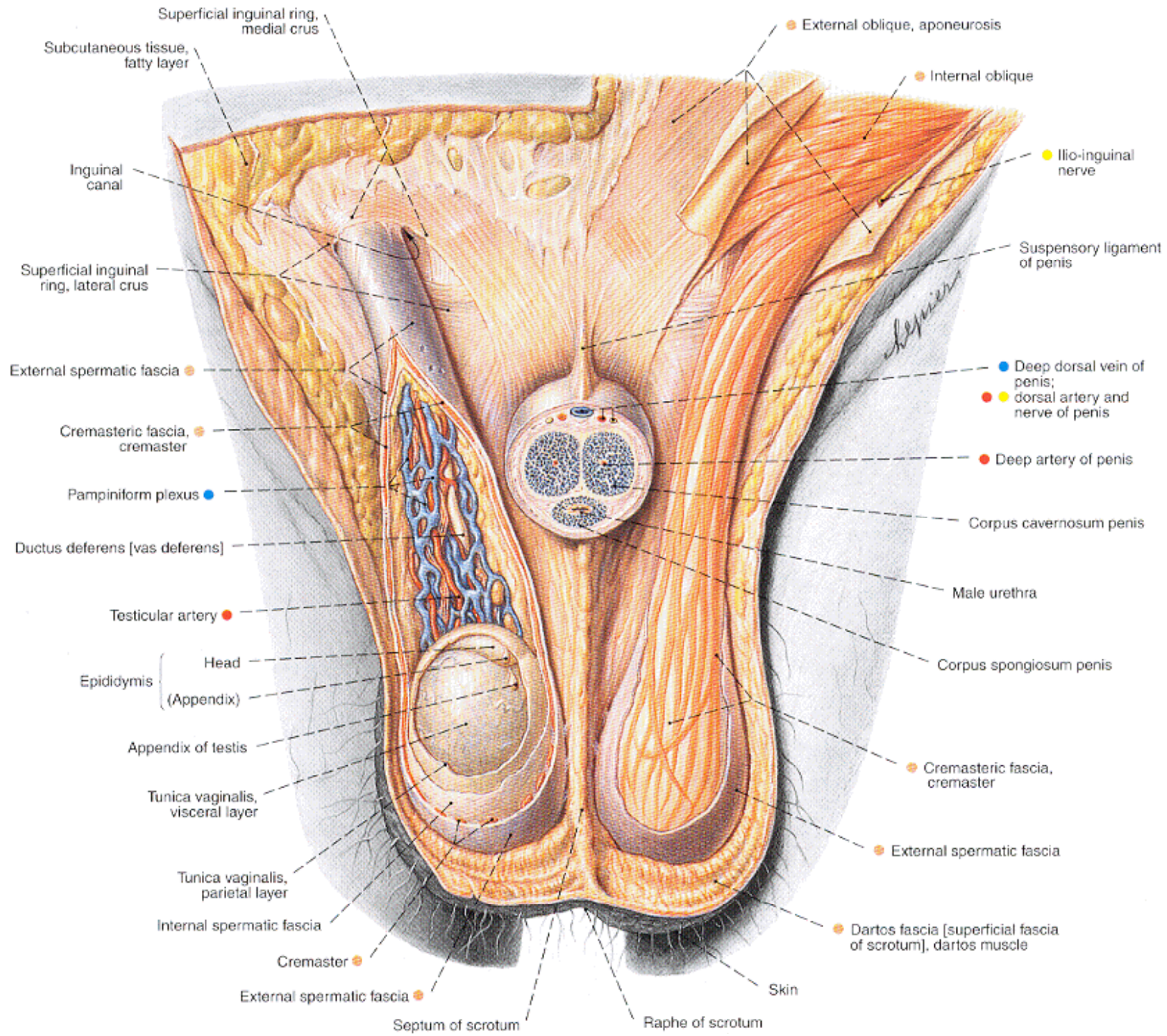












Superficial inguinal ring, medial crus
 Subcutaneous tissue, fatty layer
 Inguinal canal
 Superficial inguinal ring, lateral crus
 External spermatic fascia
 Cremasteric fascia, cremaster
 Pampiniform plexus
 Ductus deferens [vas deferens]
 Testicular artery
 Epididymis {
 Head
 (Appendix)
 Appendix of testis
 Tunica vaginalis, visceral layer
 Tunica vaginalis, parietal layer
 Internal spermatic fascia
 Cremaster
 External spermatic fascia
 Septum of scrotum

External oblique, aponeurosis
 Internal oblique
 Ilio-inguinal nerve
 Suspensory ligament of penis
 Deep dorsal vein of penis;
 dorsal artery and nerve of penis
 Deep artery of penis
 Corpus cavernosum penis
 Male urethra
 Corpus spongiosum penis
 Cremasteric fascia, cremaster
 External spermatic fascia
 Dartos fascia [superficial fascia of scrotum], dartos muscle
 Skin
 Raphe of scrotum

Circumcision

