

MALE GENITAL ORGANS (ORGANA GENITALIA MASCULINA)

Organa genitalia interna:

Testis

Epididymis

Ductus deferens

Urethra masculina

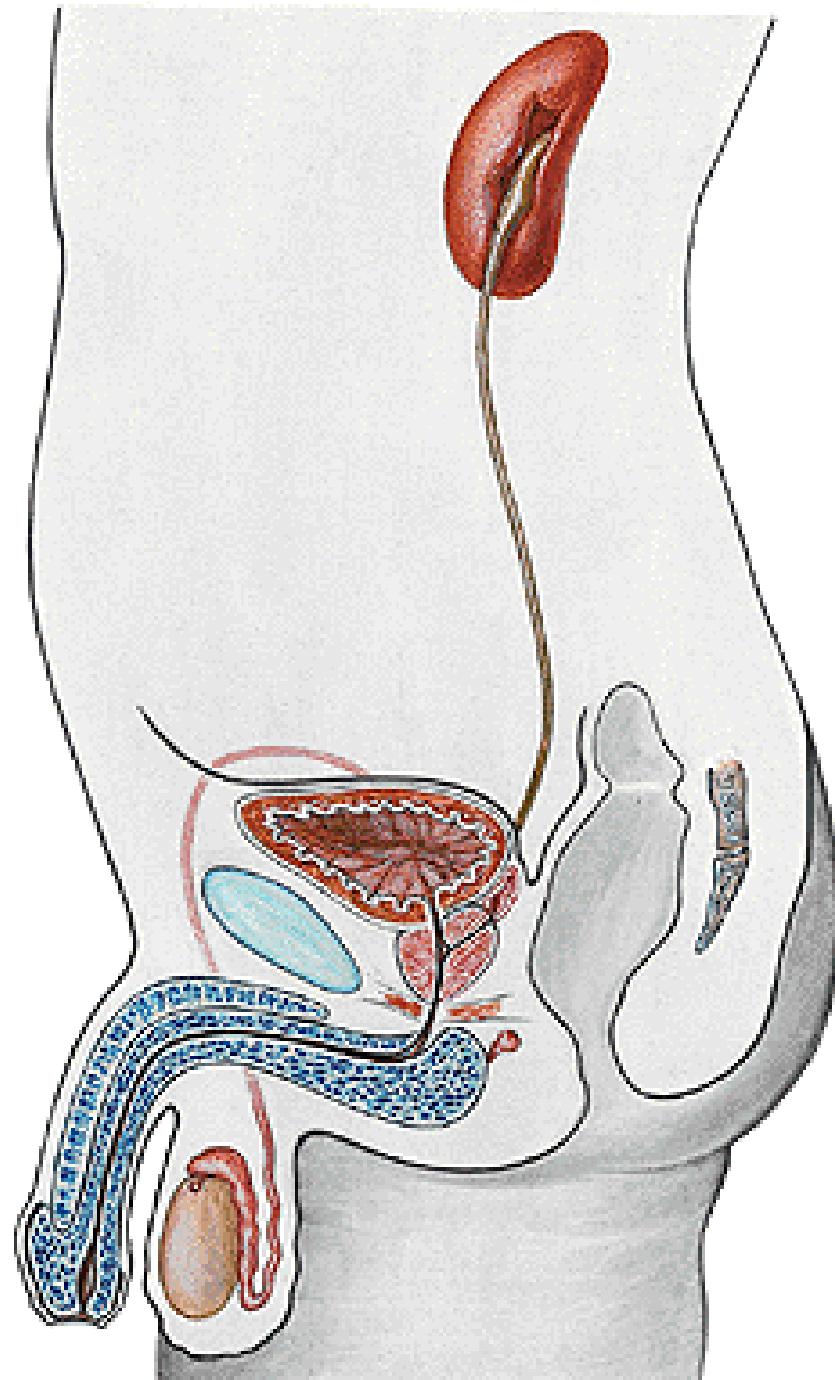
Vesicula seminalis

Prostata

Organa genitalia externa:

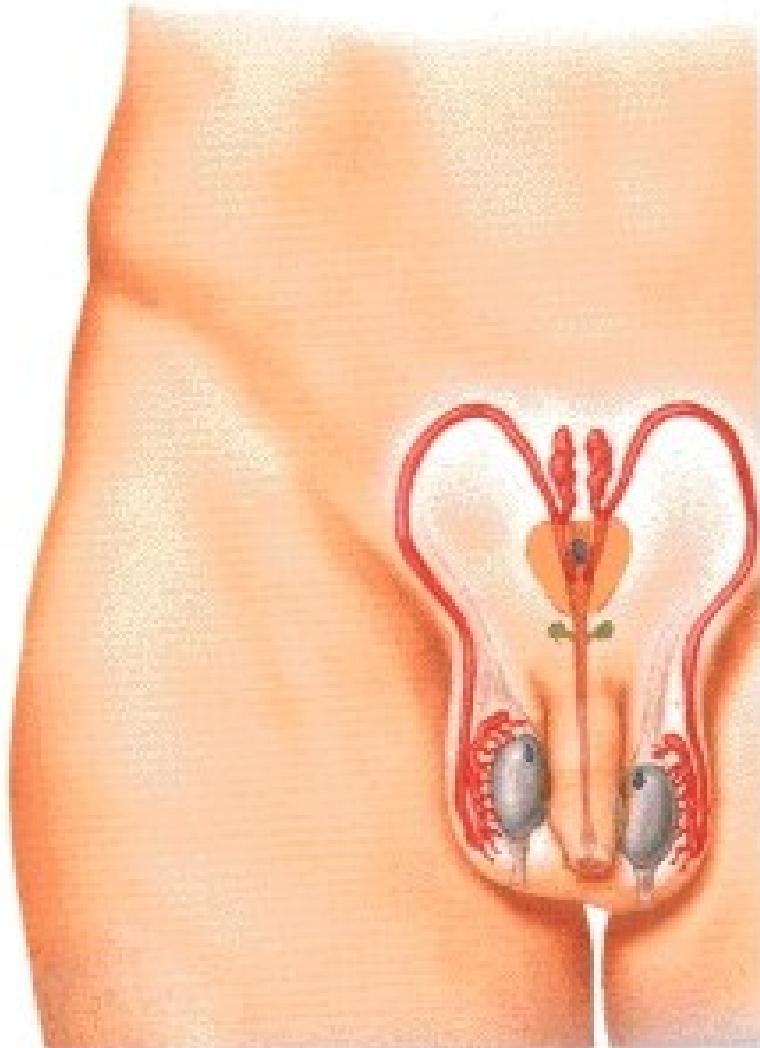
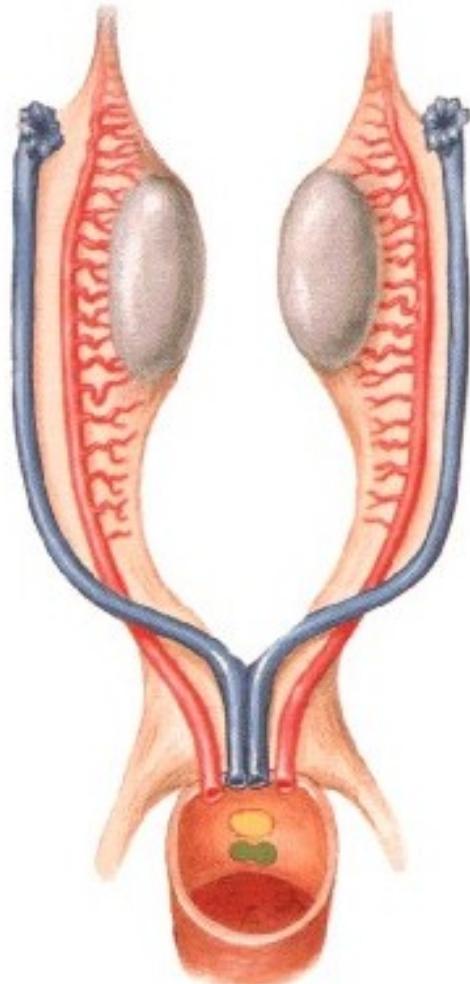
Penis

Scrotum



Development: Wolffian ducts Müllerian ducts

Undifferentiated Stage



TESTIS

Facies medialis

Facies lateralis

Extremitas superior

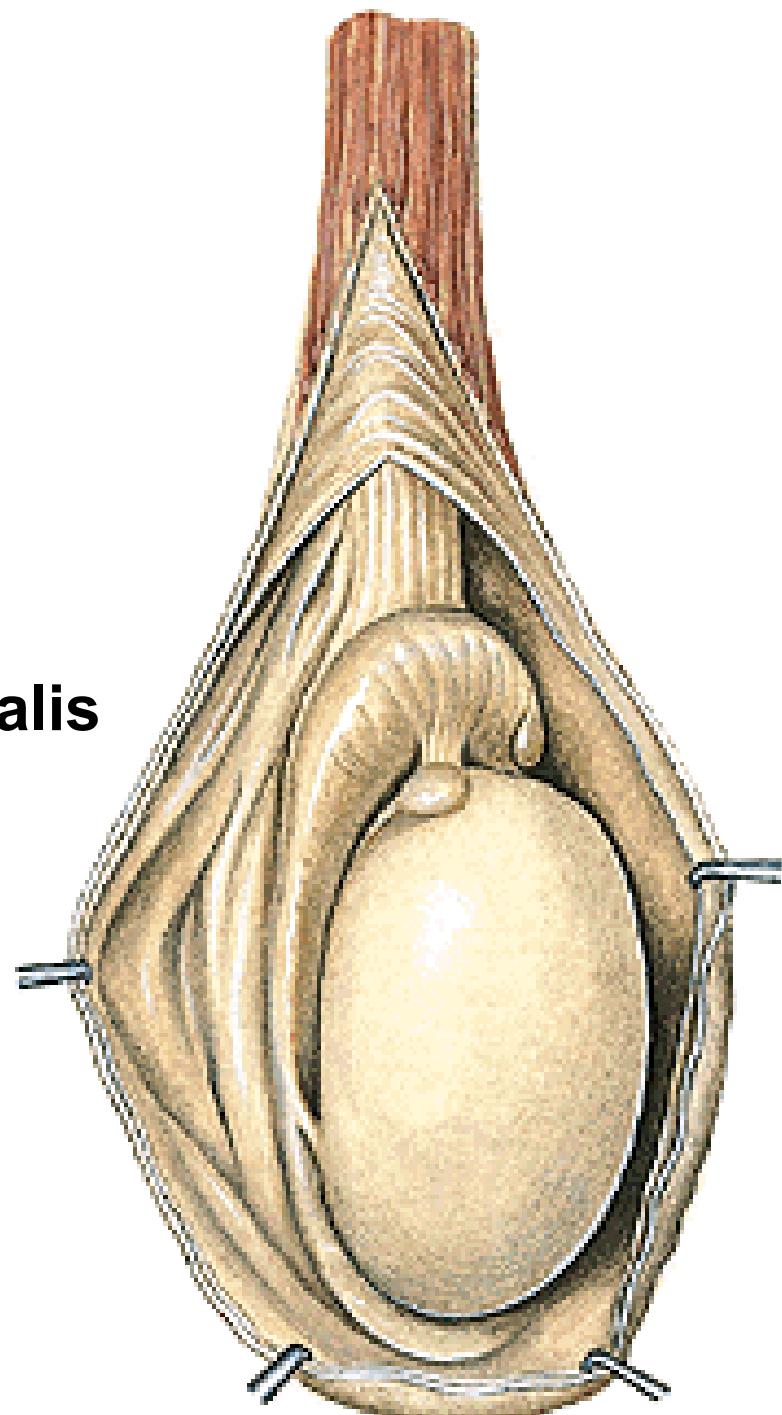
Extremitas inferior

Margo anterior

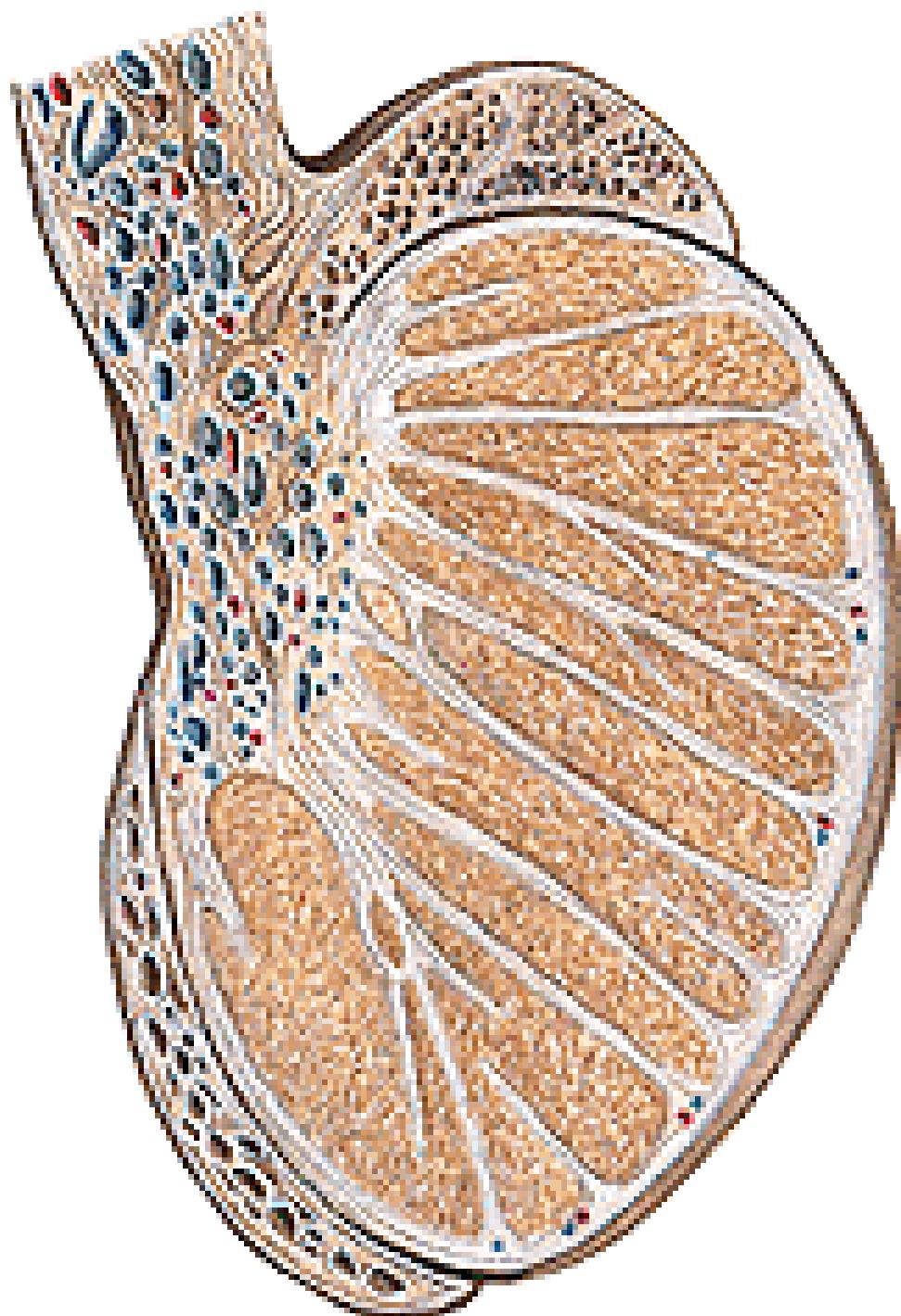
Margo posterior

Lamina visceralis tunicae vaginalis

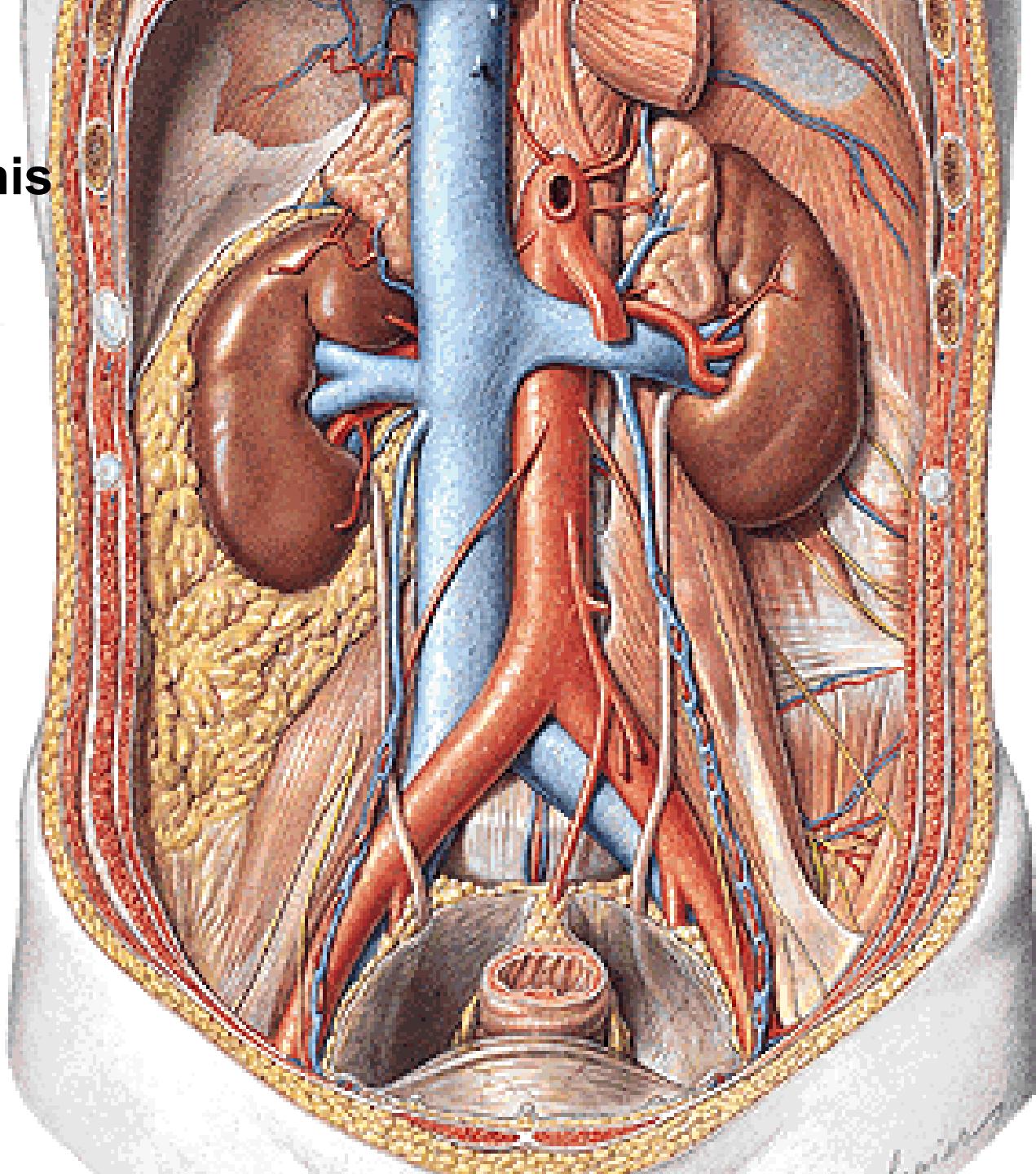
(Epiorchium)



Tunica albuginea
Mediastinum testis
Septula testis
Lobuli testis
Hilum testis
Tubuli seminiferi contorti
Spermatozoa
Supporting cells of Sertoli
Interstitial cells of Leydig
Tubuli seminiferi recti
Rete testis
Ductuli efferentes testis

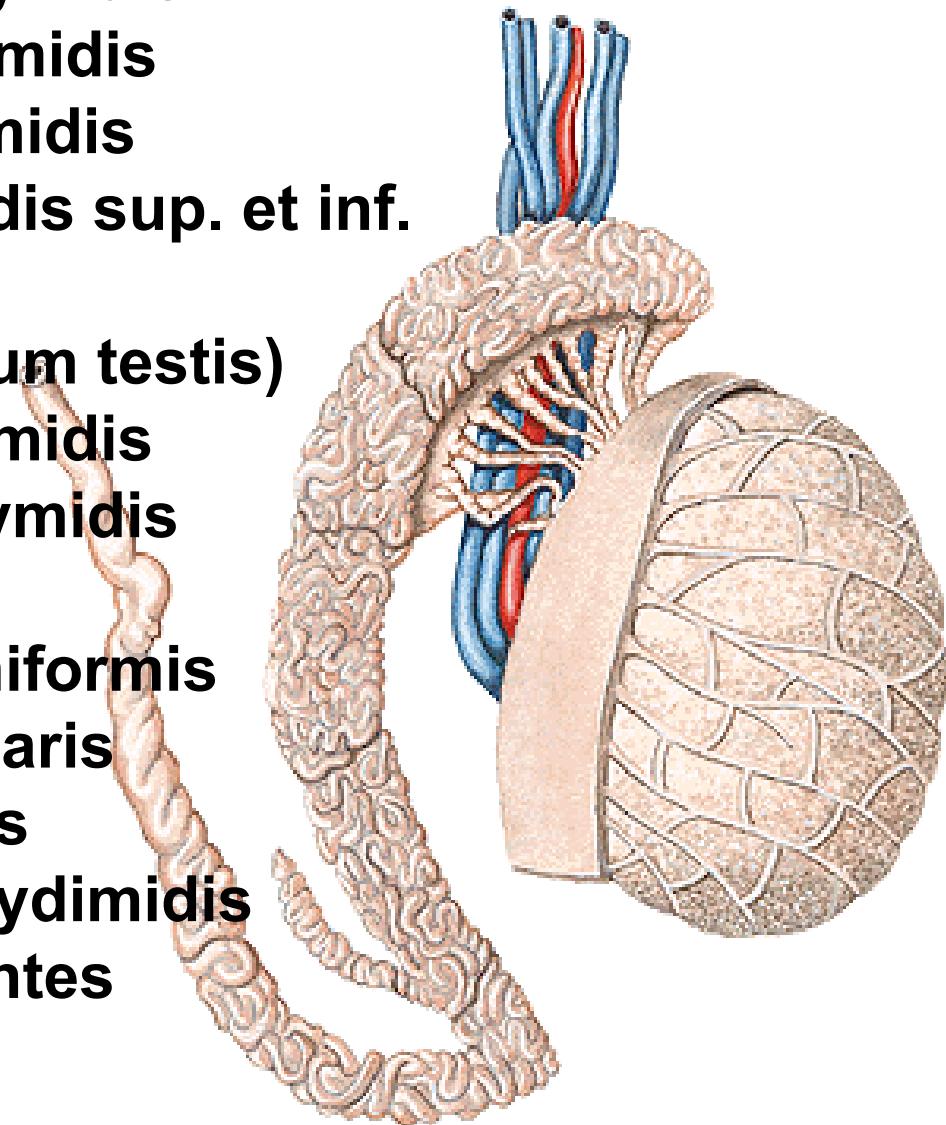
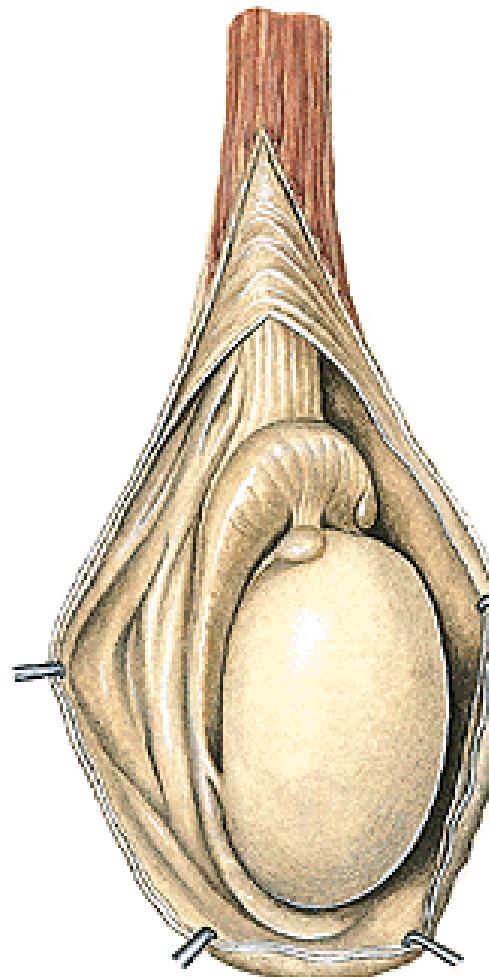


A. testicularis
Plexus pampiniformis
- vv. testiculares
NII. lumbales



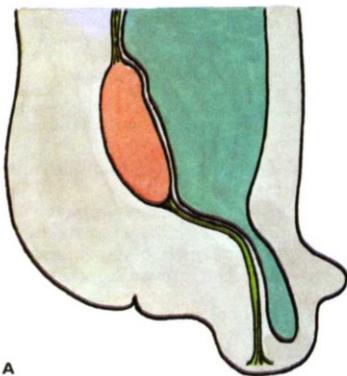
EPIDIDYMIS

Caput epididymidis
Corpus epididymidis
Cauda epididymidis
Sinus epididymidis
Lig. epididymidis sup. et inf.
Lig. scrotale
(Gubernaculum testis)
Lobuli epididymidis
Ductus epididymidis
A. testicularis
Plexus pampiniformis
Plexus testicularis
Appendix testis
Appendix epididymidis
Ductuli aberrantes

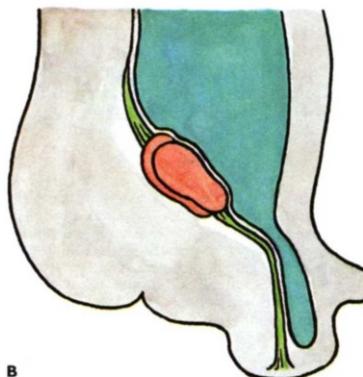


DESCENSUS TESTIUM

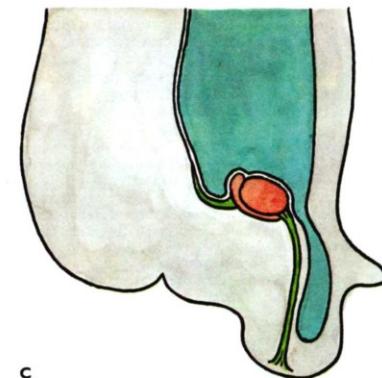
Gubernaculum testis → Lig. scrotale
Processus vaginalis → Tunica vaginalis
Lig. vaginale



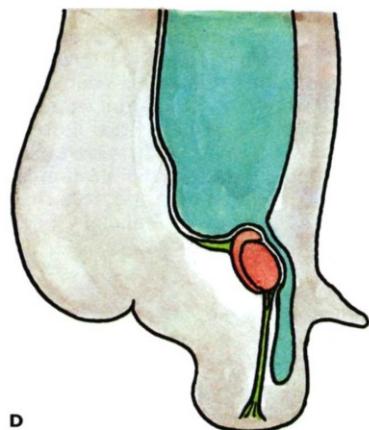
A



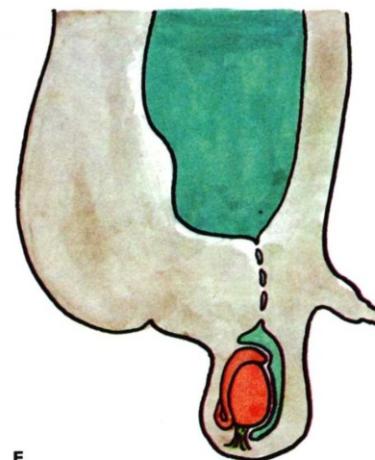
B



C



D



E

Retentio testis (cryptorchidism). Ectopia testis.

DUCTUS DEFERENS (VAS DEFERENS)

Pars epididymica

Pars funicularis

Pars inguinalis

Pars pelvina

Ampulla ductus deferentis - diverticula ampullae

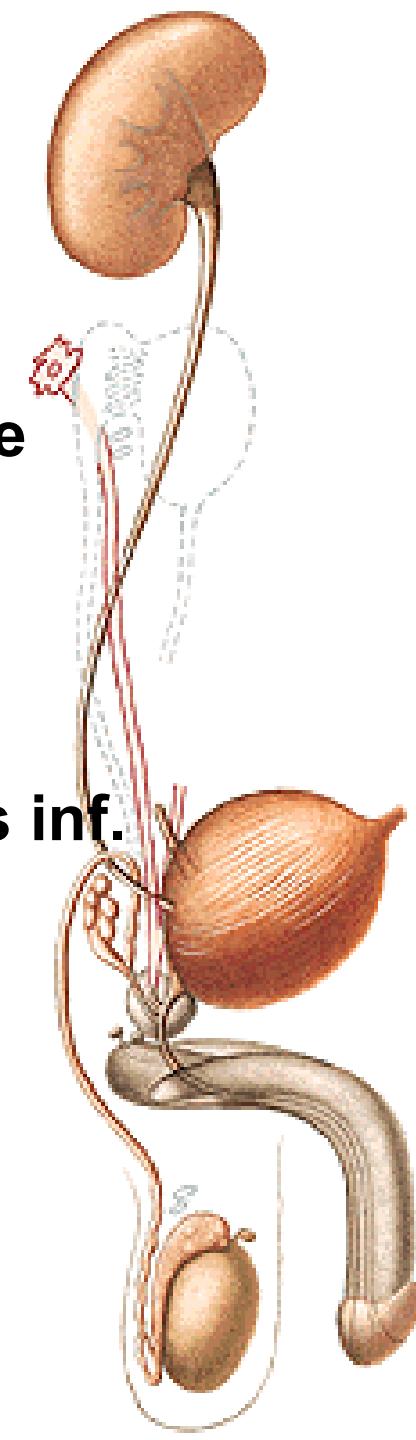
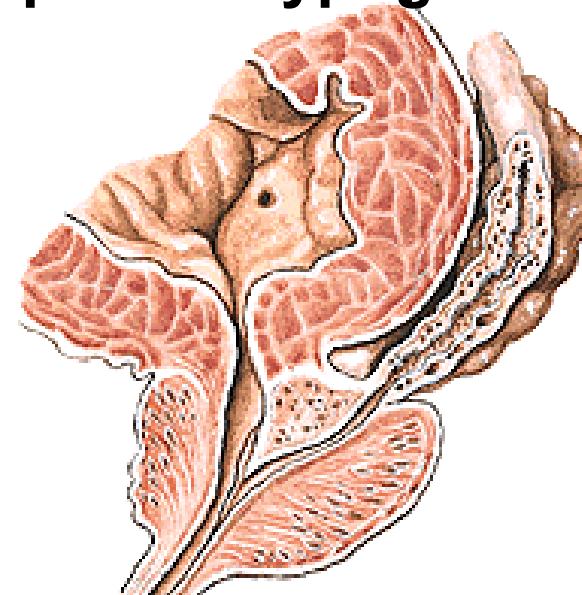
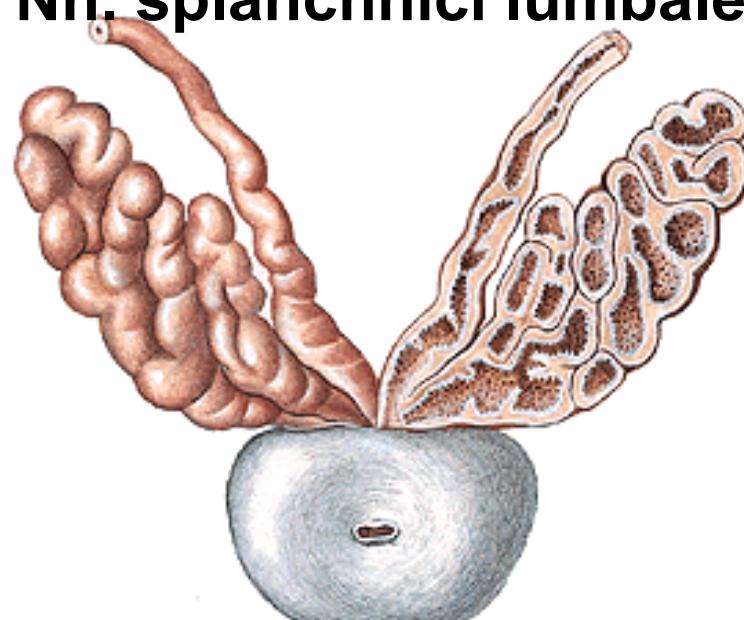
Ductus ejaculatorius – colliculus seminalis

A. ductus deferentis

Plexus pampiniformis et vesicalis

NII. iliaci int. et ext.

Nn. splanchnici lumbales, plexus hypogastricus inf.



FUNICULUS SPERMATICUS: Ductus deferens

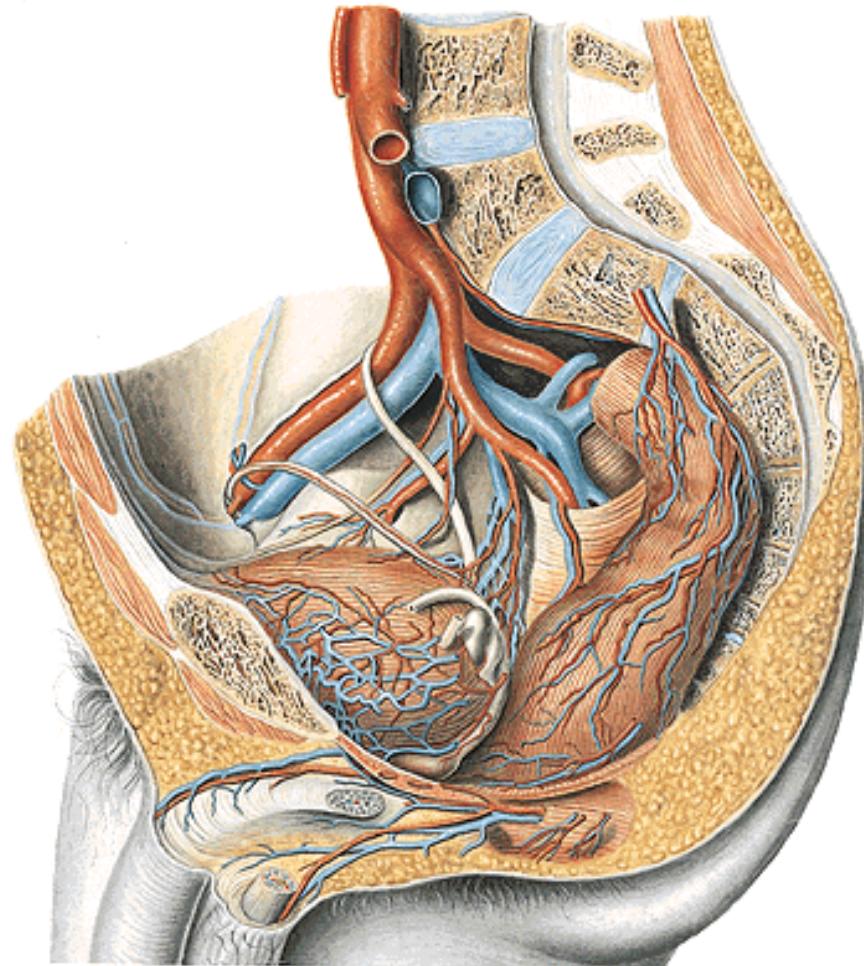
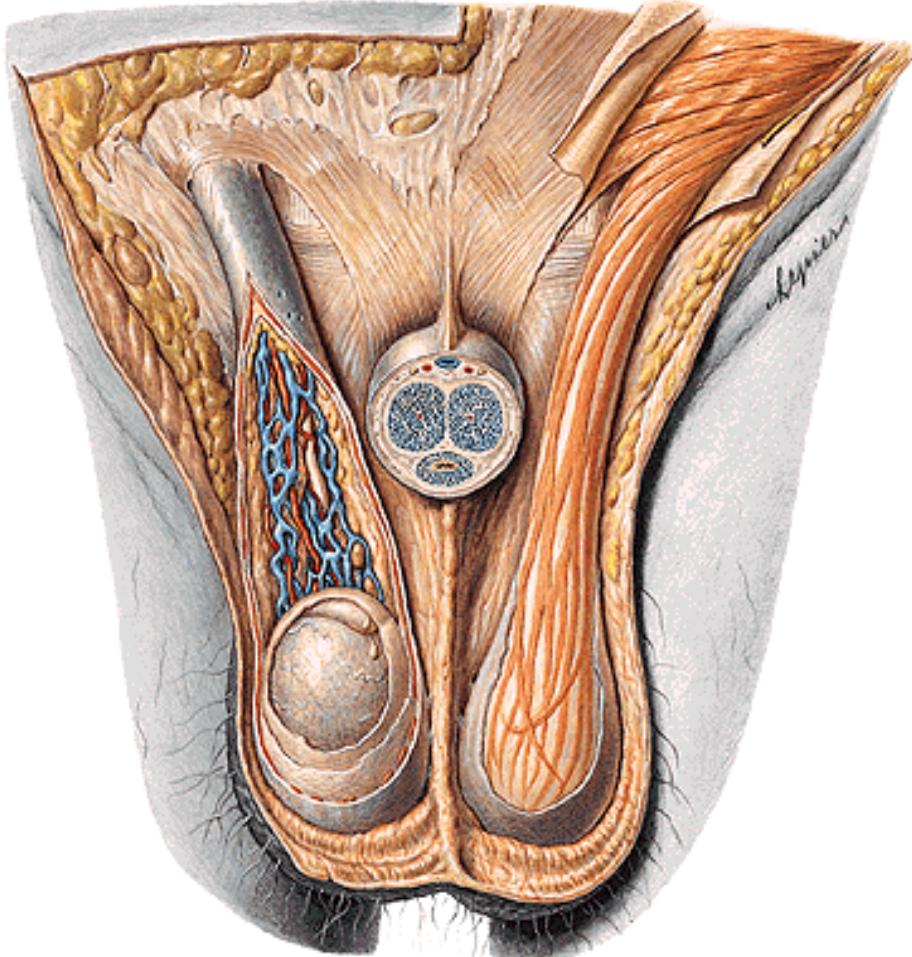
A. ductus deferentis

A. testicularis

Plexus pampiniformis

Plexus testicularis

Plexus deferentialis

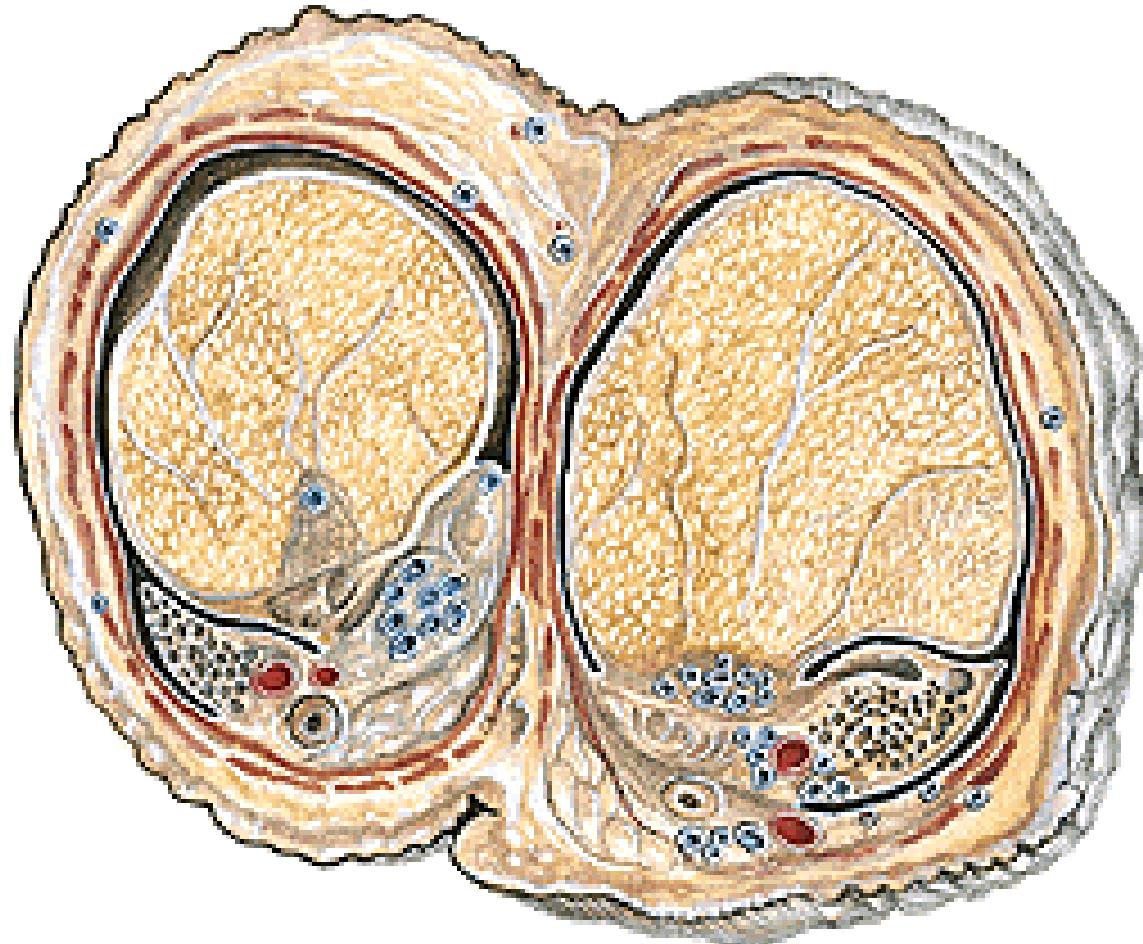


COVERINGS OF THE TESTIS, EPIDIDYMIS AND SPERMATIC CORD

Epiorchium (Lamina visceralis tunicae vaginalis)

Periorchium (Lamina parietalis tunicae vaginalis)

Cavum serosum scroti

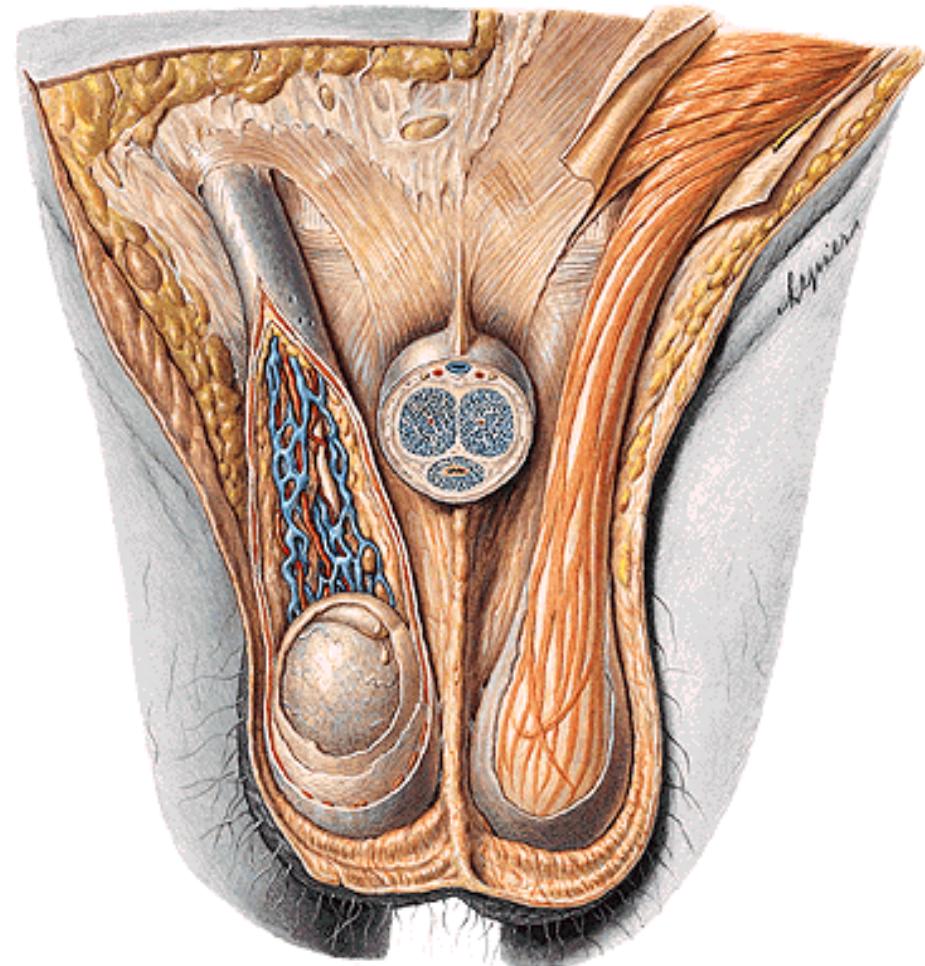
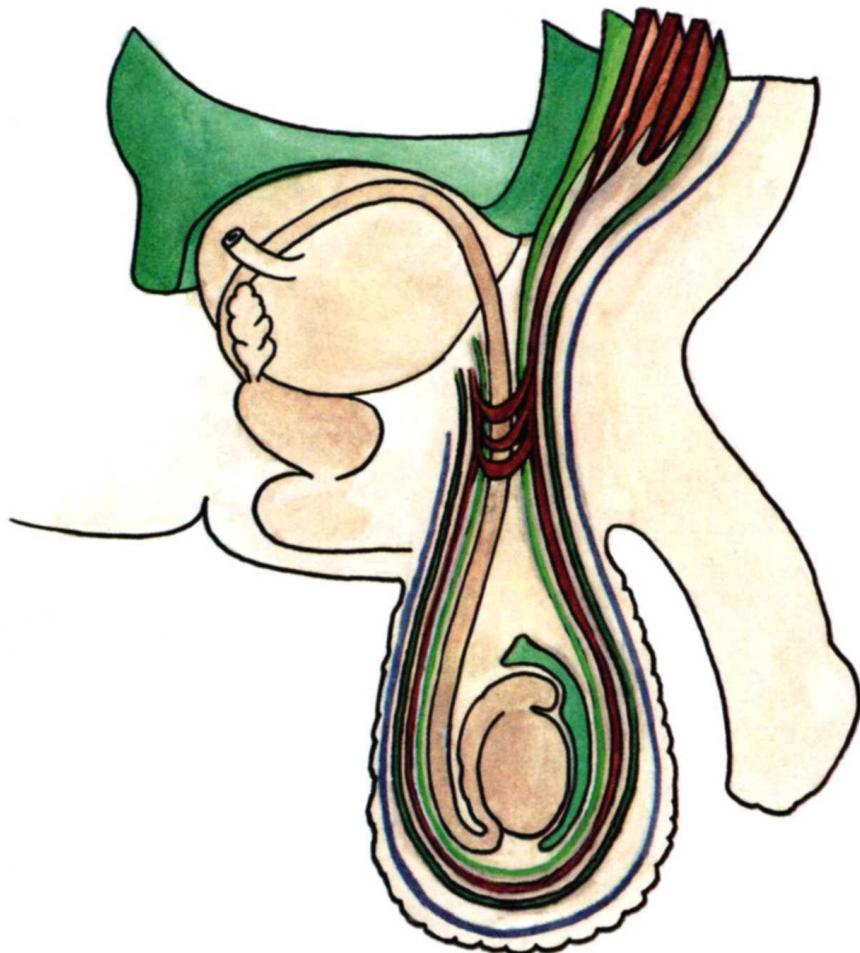


Fascia spermatica interna (Fascia transversalis)

Fascia cremasterica - M. cremaster

(M. obliquus abdominis internus, M. transversus abdominis)

Fascia spermatica externa (Fascia abdominis superficialis)



CANALIS INGUINALIS

Posterior wall:

Fascia transversalis:

Falx inguinalis

Trigonum inguinale

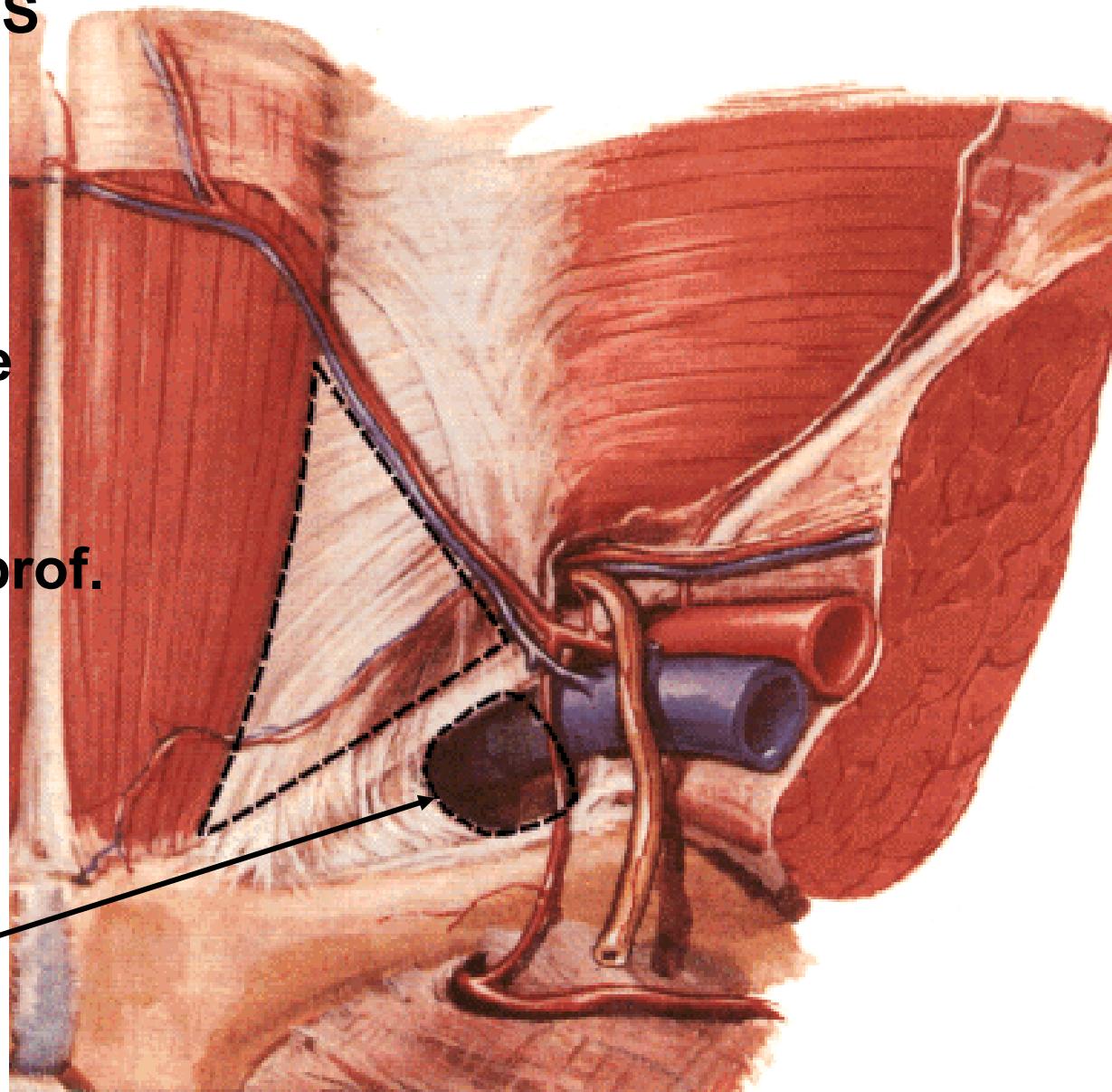
(Hesselbachi)

Lig. interfoveolare

Anulus inguinalis prof.

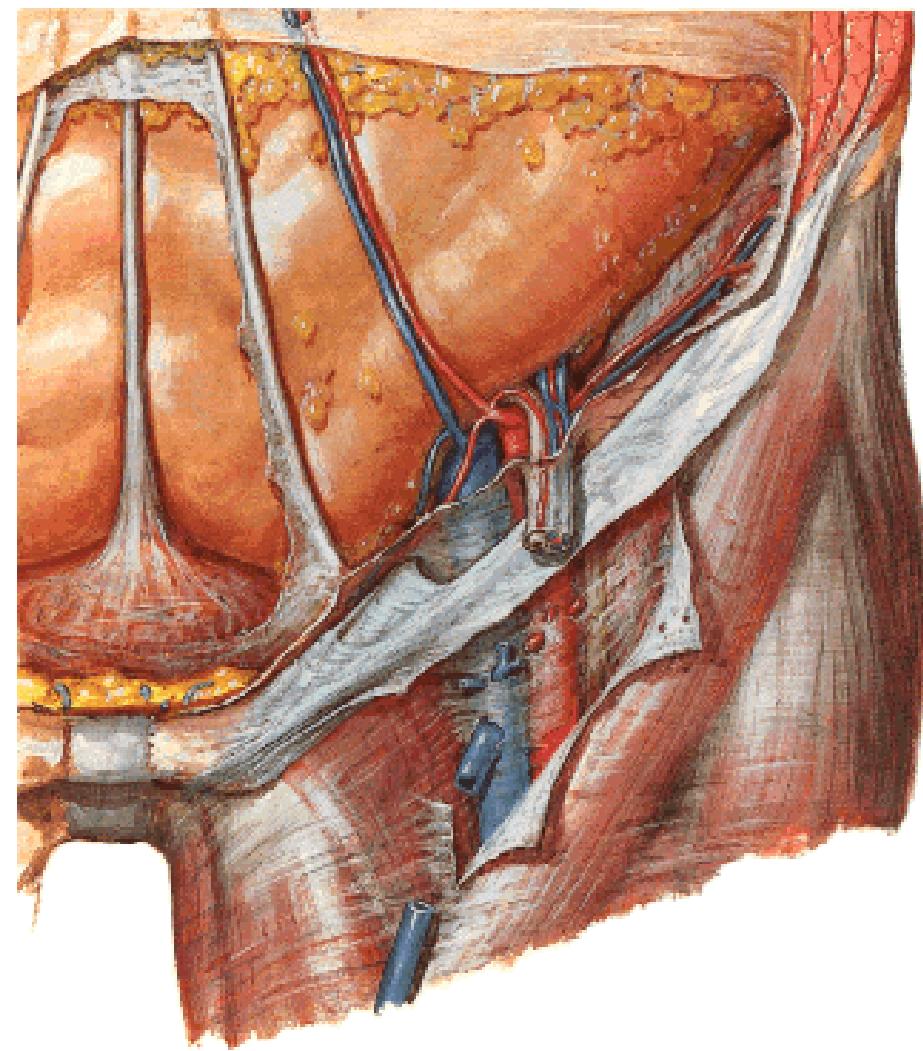
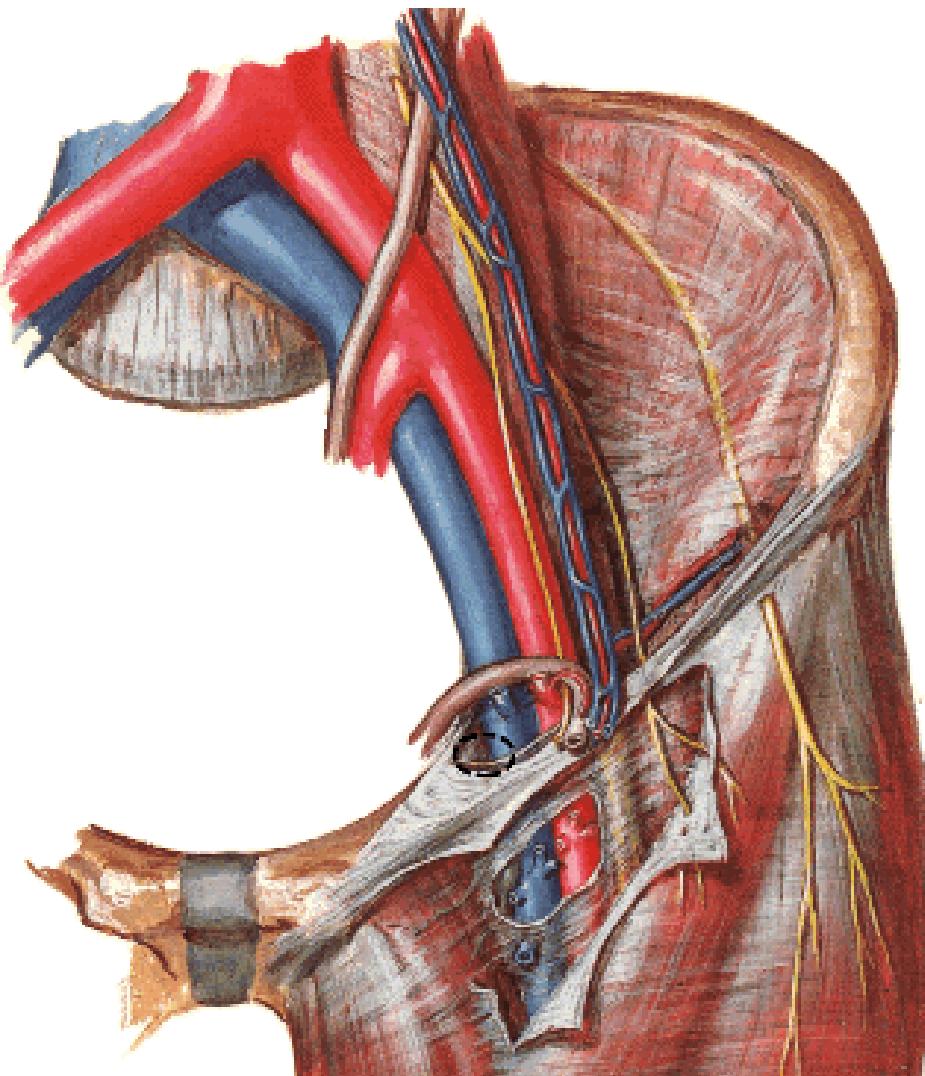
Tractus iliopubicus

Anulus femoralis



CANALIS INGUINALIS

Inferior wall:
Lig. inguinale



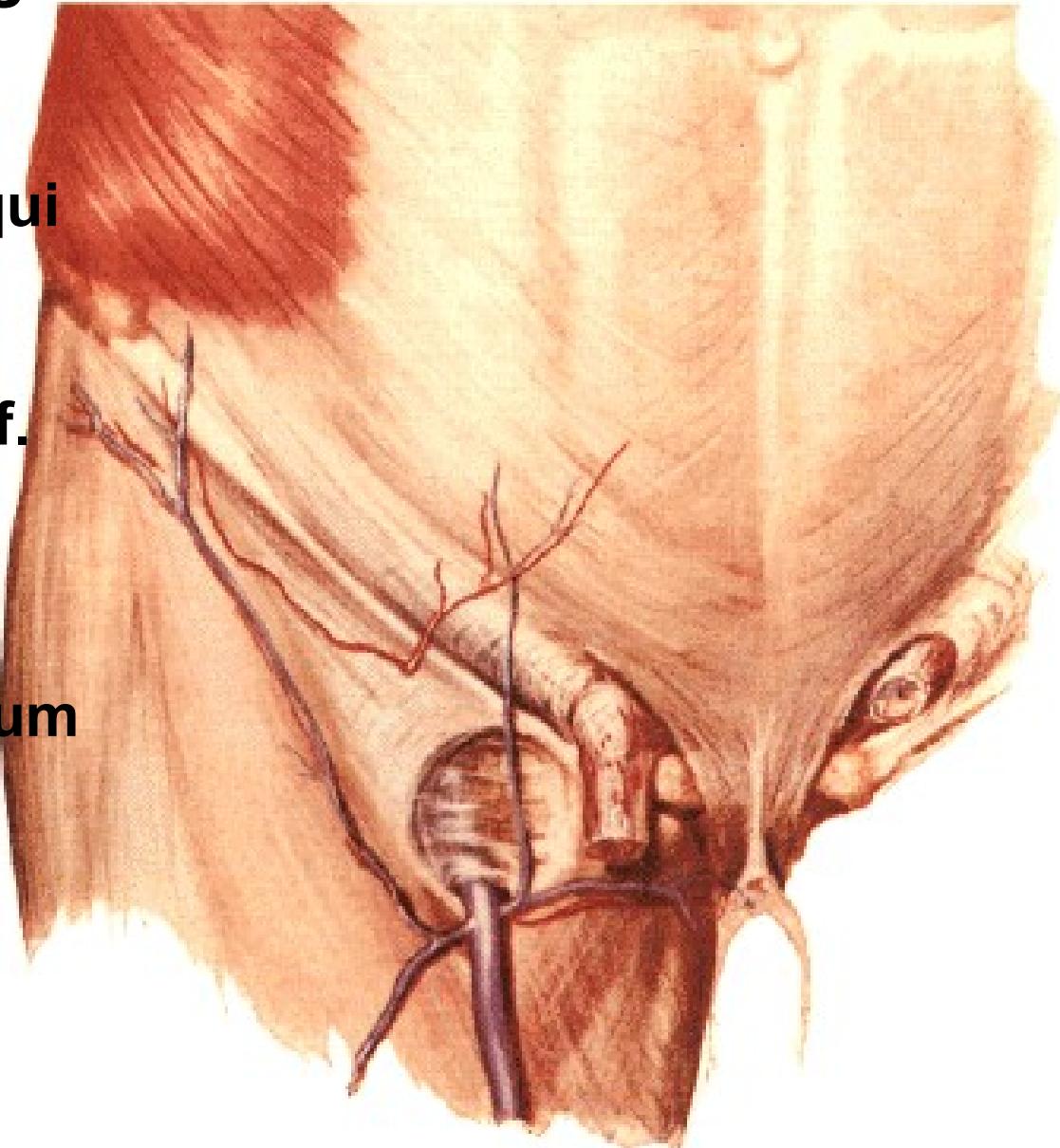
CANALIS INGUINALIS

Anterior wall:

Aponeurosis m. obliqui
externi abdominis

Anulus inguinalis spf.

- crus mediale
- crus laterale
- fibrae intercrurales
- lig. inguinale reflexum



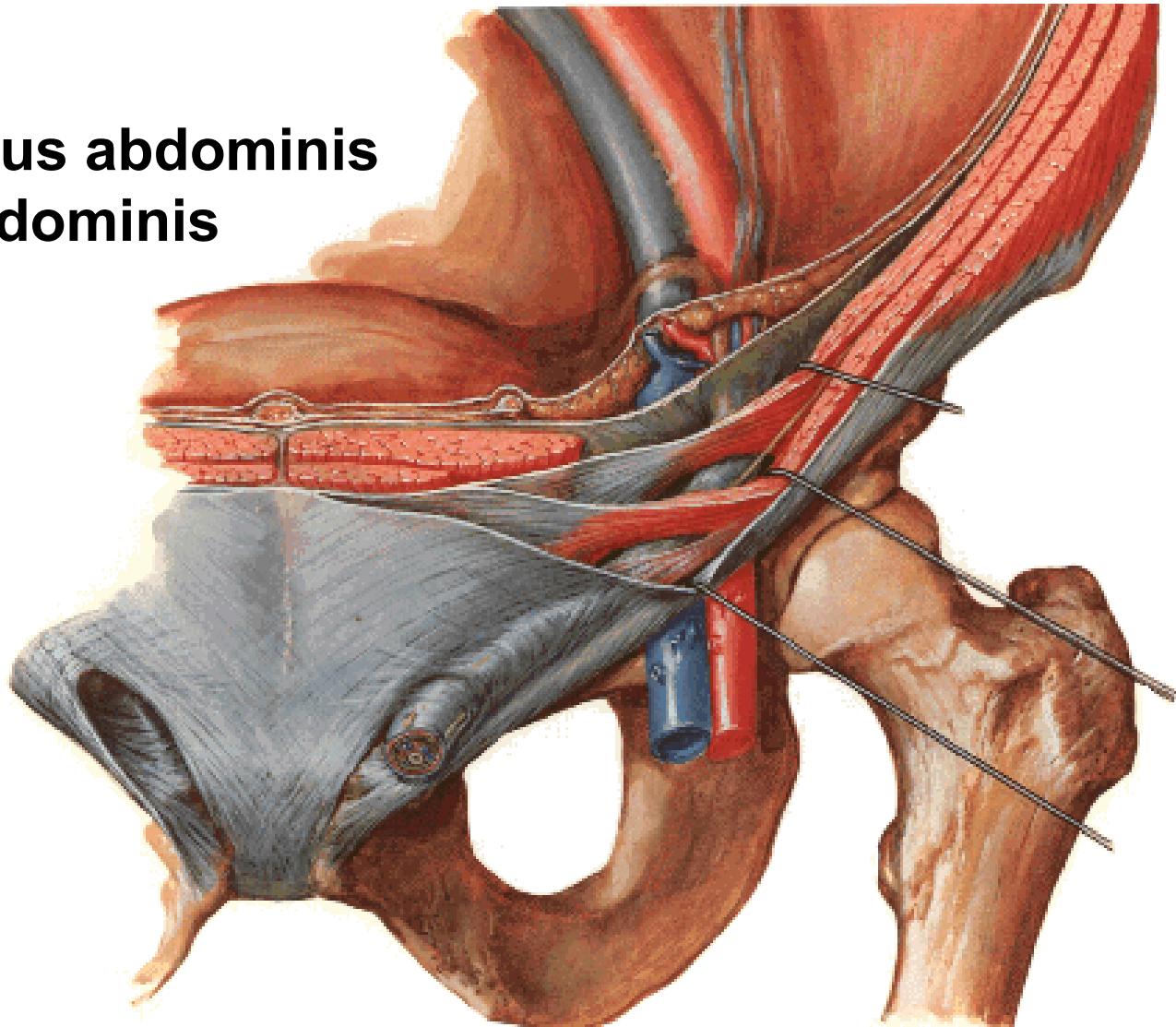
CANALIS INGUINALIS

Superior wall:

M. obliquus internus abdominis

M. transversus abdominis

- M. cremaster



Plica umbilicalis mediana
- lig. umbilicale medianum

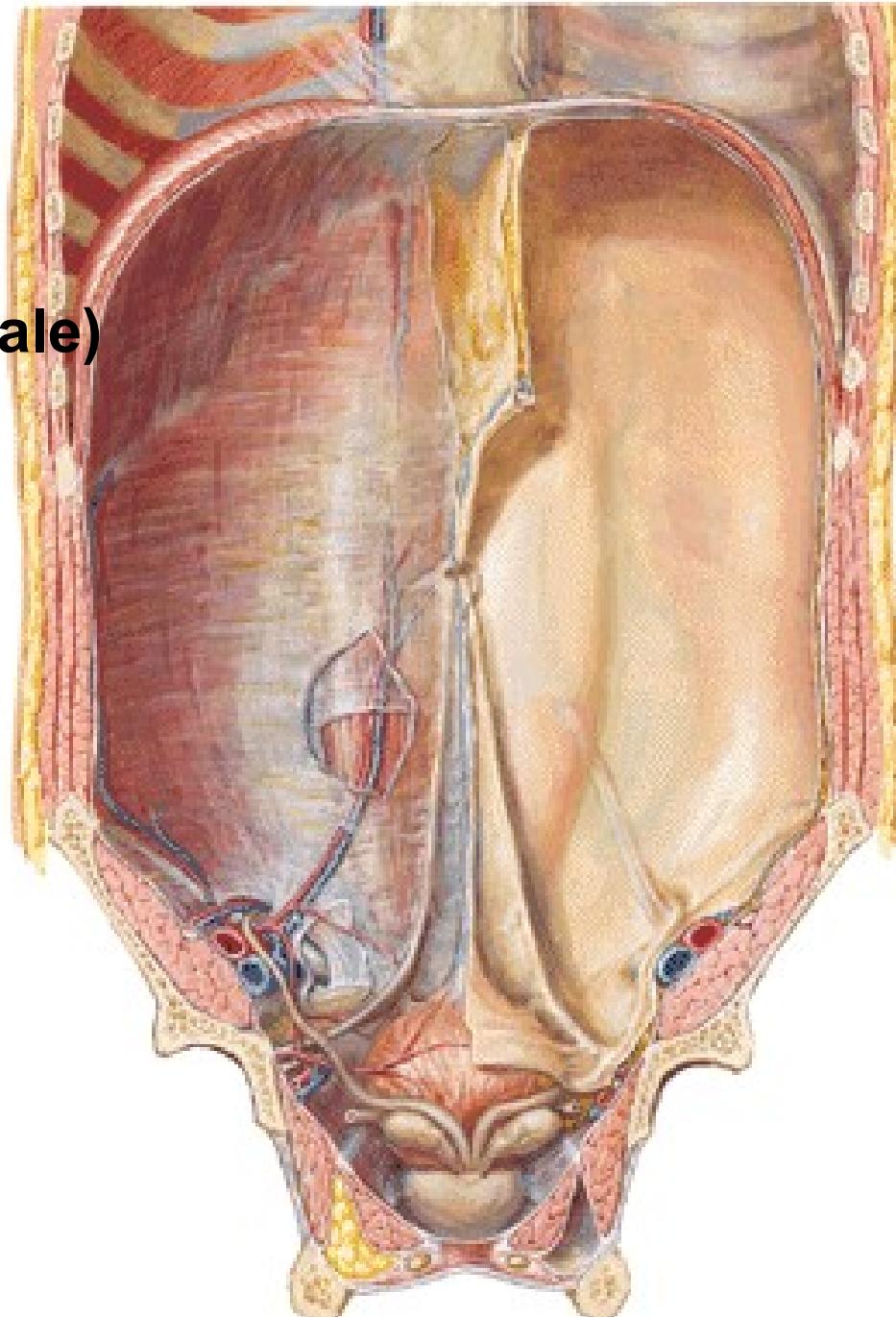
Plica umbilicalis medialis
- lig. umbilicale mediale (laterale)
(pars occlusa a. umbilicalis)

Plica umbilicalis lateralis
- vasa epigastrica inf.

Fossa supravesicalis

Fossa inguinalis medialis
(trig. Inguinale)

Fossa inguinalis lateralis
(anulus inguinalis prof.)



Fossa supravesicalis

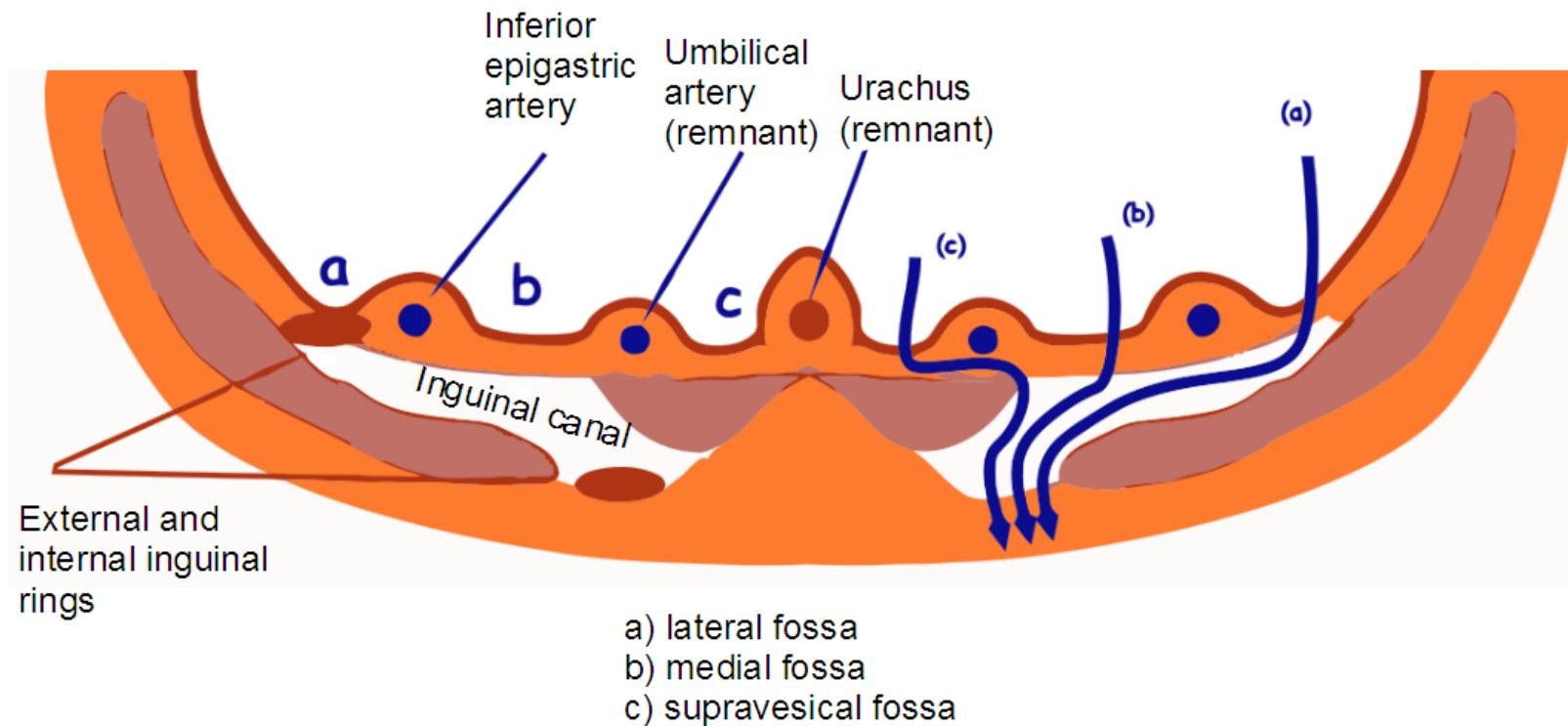
- hernia supravesicalis (c)

Fossa inguinalis medialis

- hernia inguinalis directa (b)

Fossa inguinalis lateralis

- hernia inguinalis indirecta (a)



VESICULA SEMINALIS

Ductus excretorius

Ductus ejaculatorius

PROSTATA

Basis

Apex

Facies anterior

Facies posterior

Facies inferolaterales

Lobus medius

Lobus dexter et sinister

Isthmus



Capsula propria

Plexus venosus prostaticus

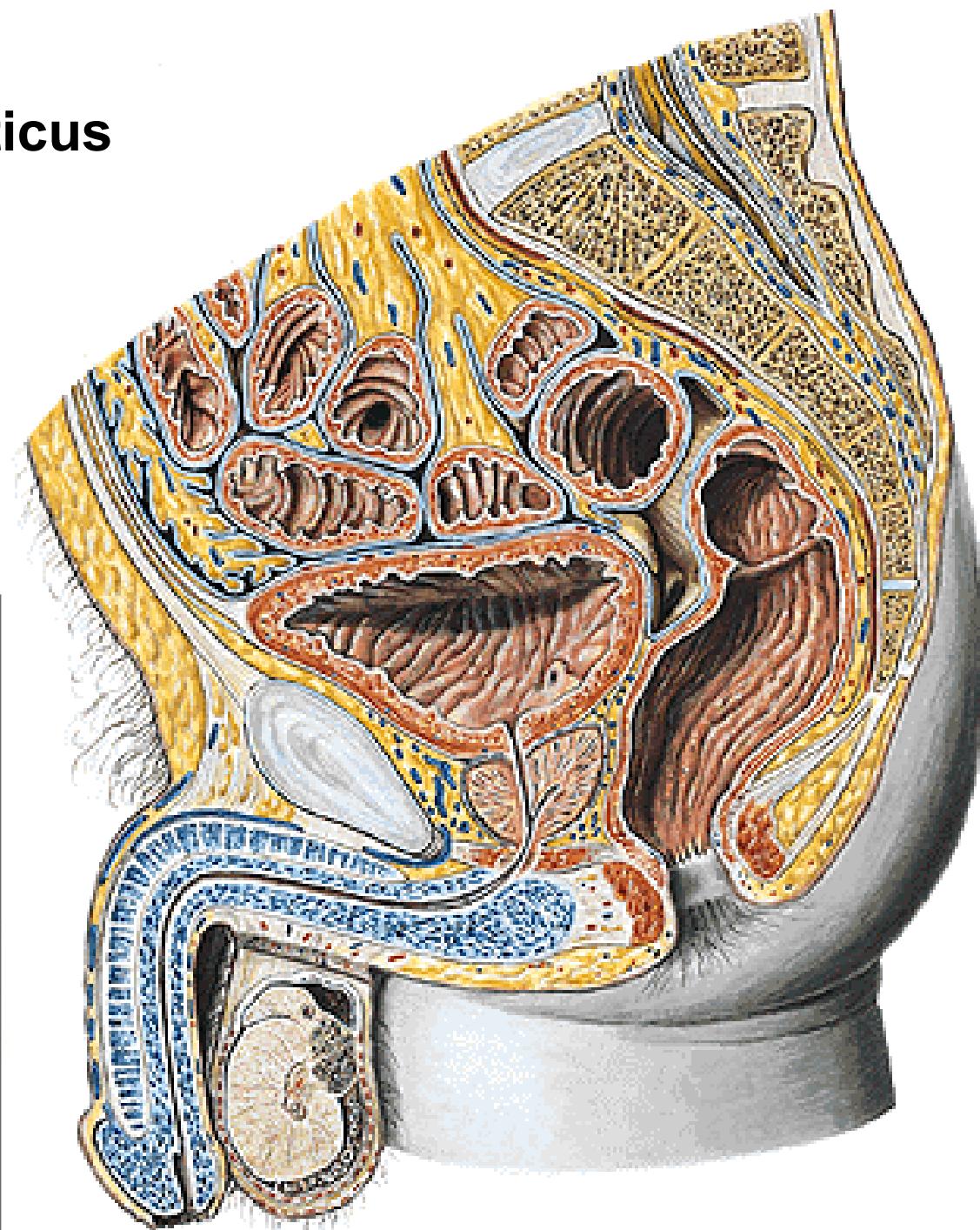
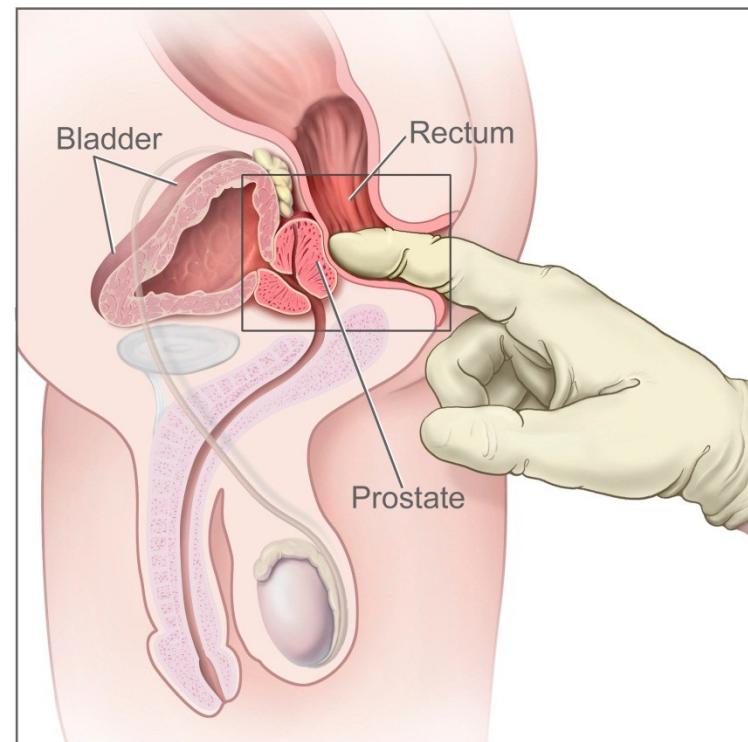
Fascia periprostatica

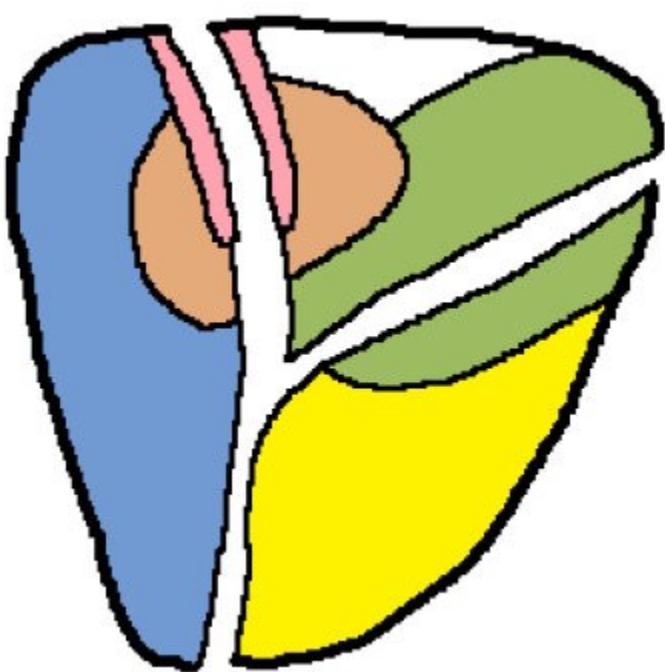
Lig. puboprostaticum

Lig. sacrogenitale

Septum rectovesicale

(Denonvilliers' fascia)





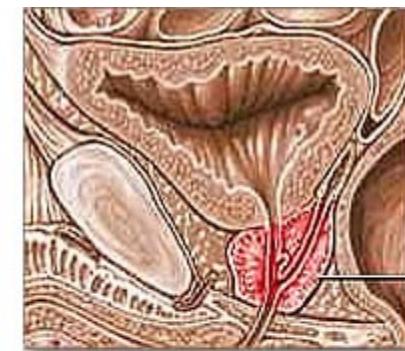
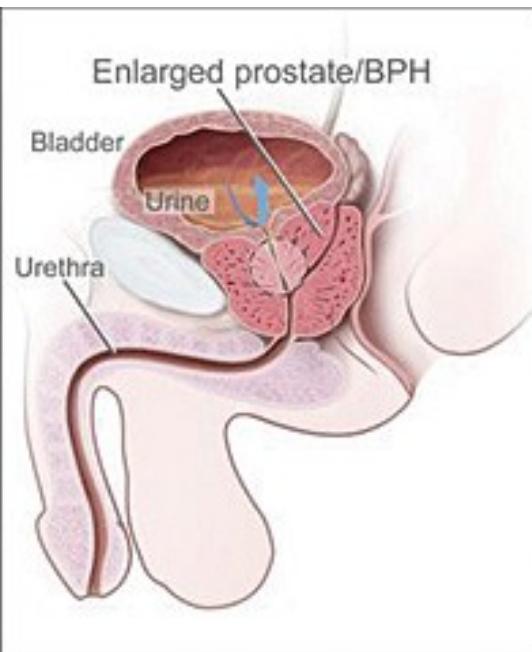
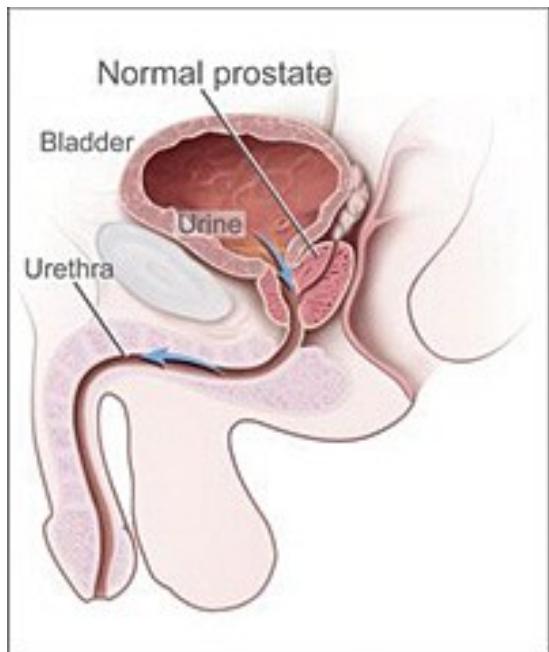
Anterior
Fibromuscular Zone

Preprostatic Sphincter

Transitional Zone

Central Zone

Peripheral Zone

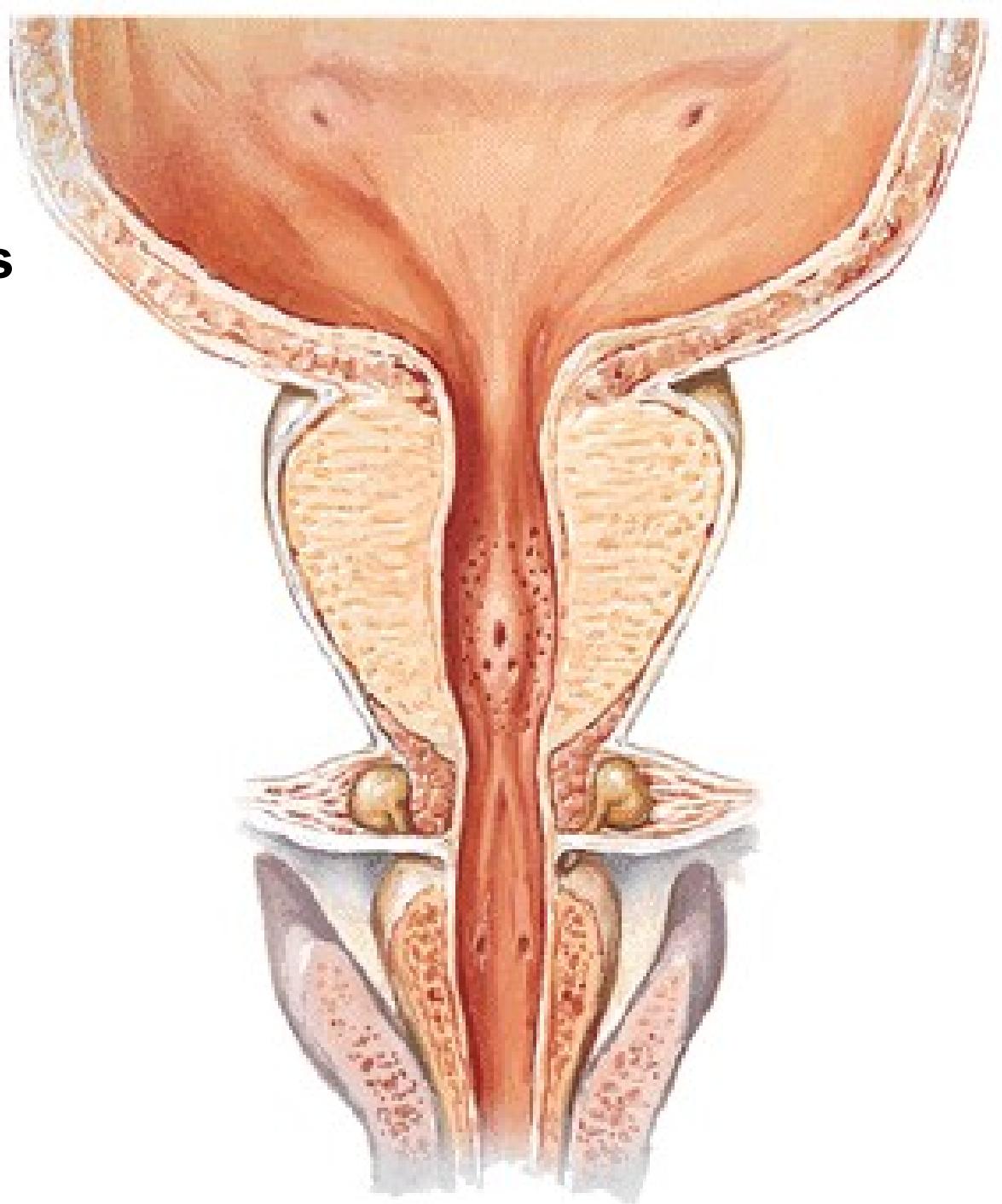


Normal
Prostate



Prostate
Cancer

Crista urethralis
Colliculus seminalis
Utriculus prostaticus
Ductus ejaculatorii
Sinus prostatici



GLANDULAE BULBOURETHRALES

Ductus gl. bulbourethralis

URETHRA MASCULINA

Ostium urethrae internum

Ostium urethrae externum

Pars intramuralis – M. sphincter vesicae

Pars prostatica

Pars membranacea – M. sphincter urethrae

Pars spongiosa – Ampulla urethrae

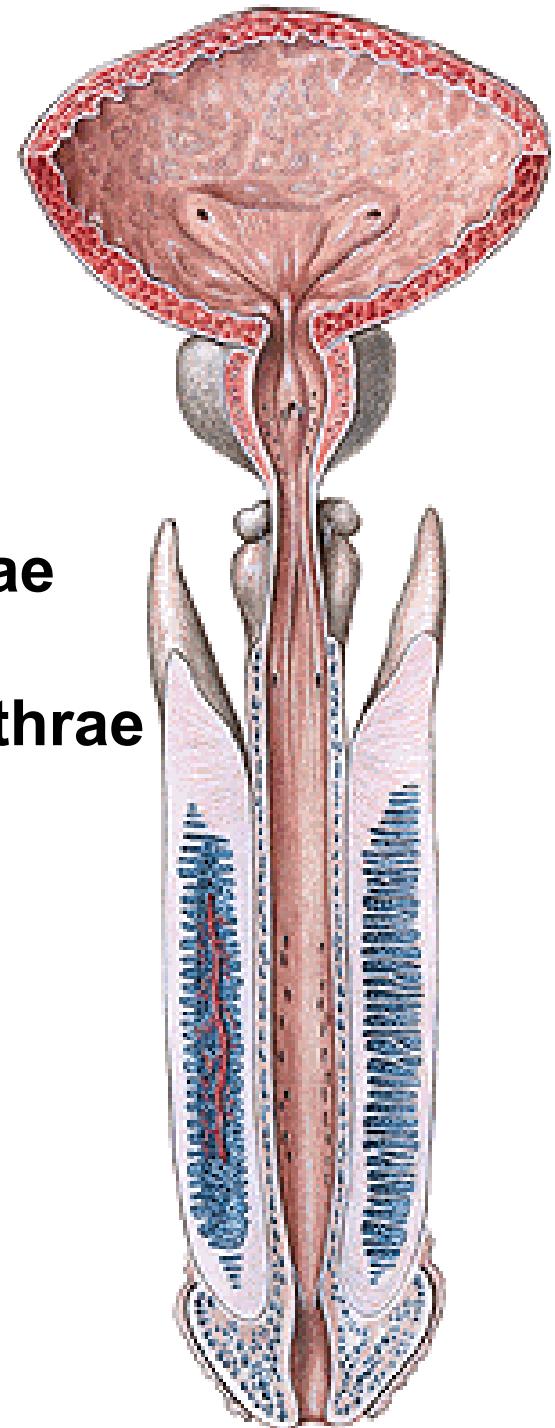
Corpus spongiosum penis

Fossa navicularis

Valvula fossae navicularis

Glandulae urethrales

Lacunae urethrales

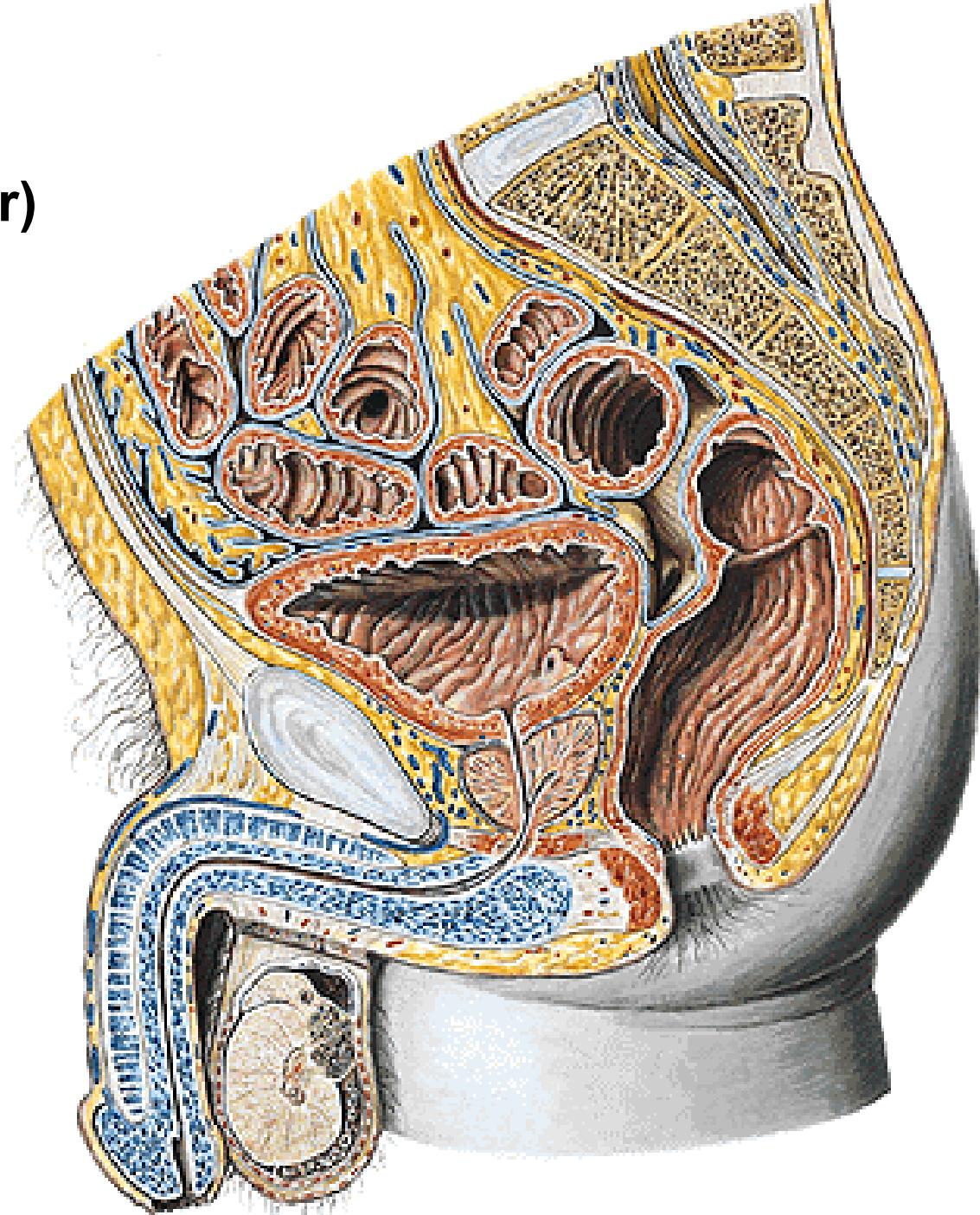


Curvatura subpubica

Curvatura praepubica

Urethra mobilis (anterior)

Urethra fixa (posterior)



EXTERNAL GENITAL ORGANS

PENIS: Radix

Corpus

Glans

Praeputium

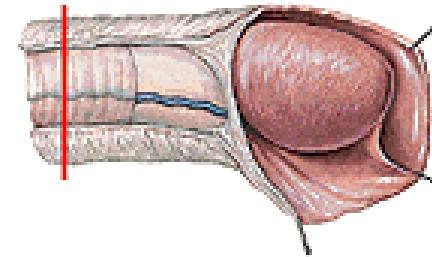
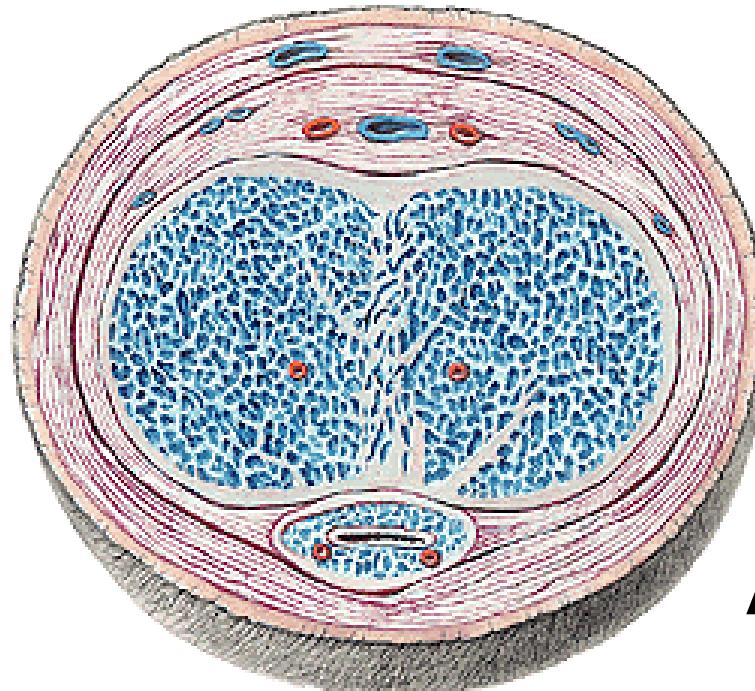
SCROTUM



PENIS

Glans penis
Collum glandis
Corona glandis
Dorsum penis
Facies urethralis
Raphe penis
Praeputium
Ostium praeputii

Glandulae praeputiales
Smegma praeputii
Frenulum praeputii
Corpus cavernosum
Corpus spongiosum
Tunica albuginea
Trabeculae
Cavernae



A. penis prof. → aa. helicinae

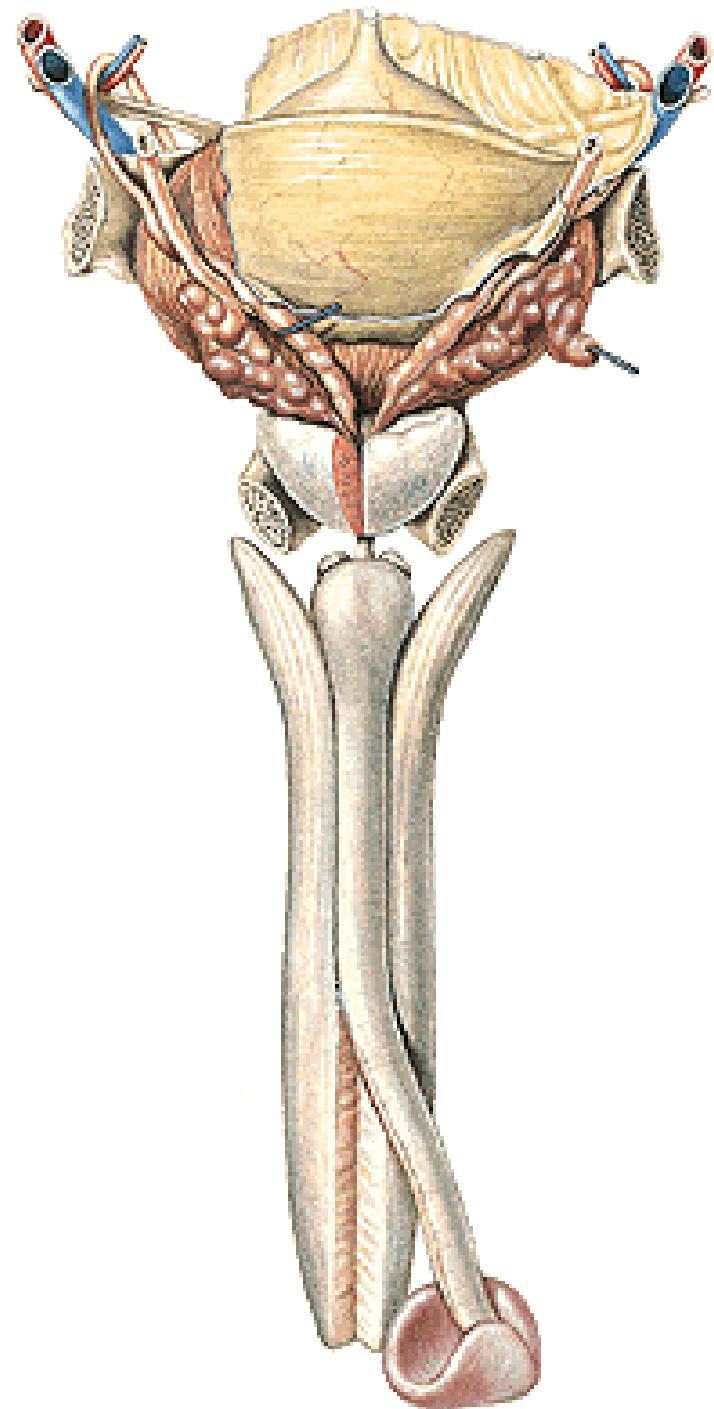
Corpus cavernosum

- crura penis - crista phalica

Corpus spongiosum

- bulbus penis

Glandulae bulbourethrales



COVERINGS OF PENIS:

Fascia penis profunda

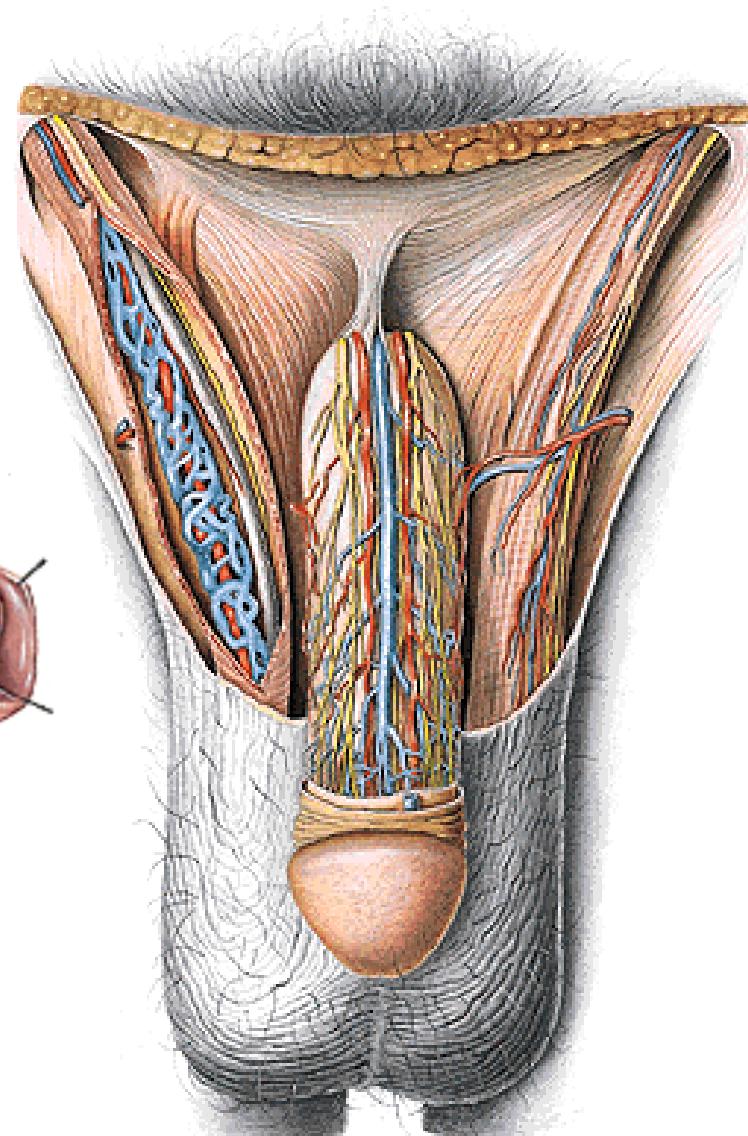
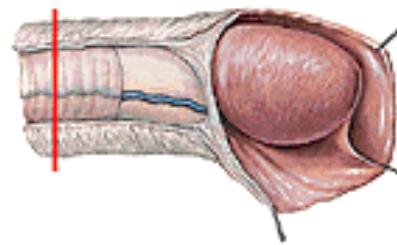
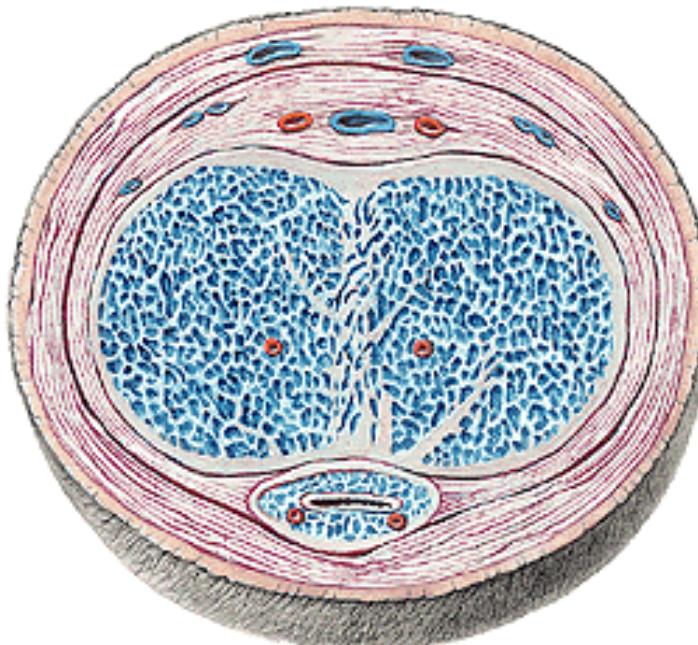
(Aa., Nn. dorsales penis, V. dorsalis penis profunda)

Fascia penis superficialis

(Vv. dorsales penis spf.)

Lig. fundiforme penis

Lig suspensorium penis



SCROTUM

Raphe scroti

Pubes

Tunica dartos scroti

Septum scroti

Cavitas scroti

A.pudenda ext.

A. pudenda int.

V. femoralis

V. pudenda int.

NII. inguinales spf.

N. genitofemoralis

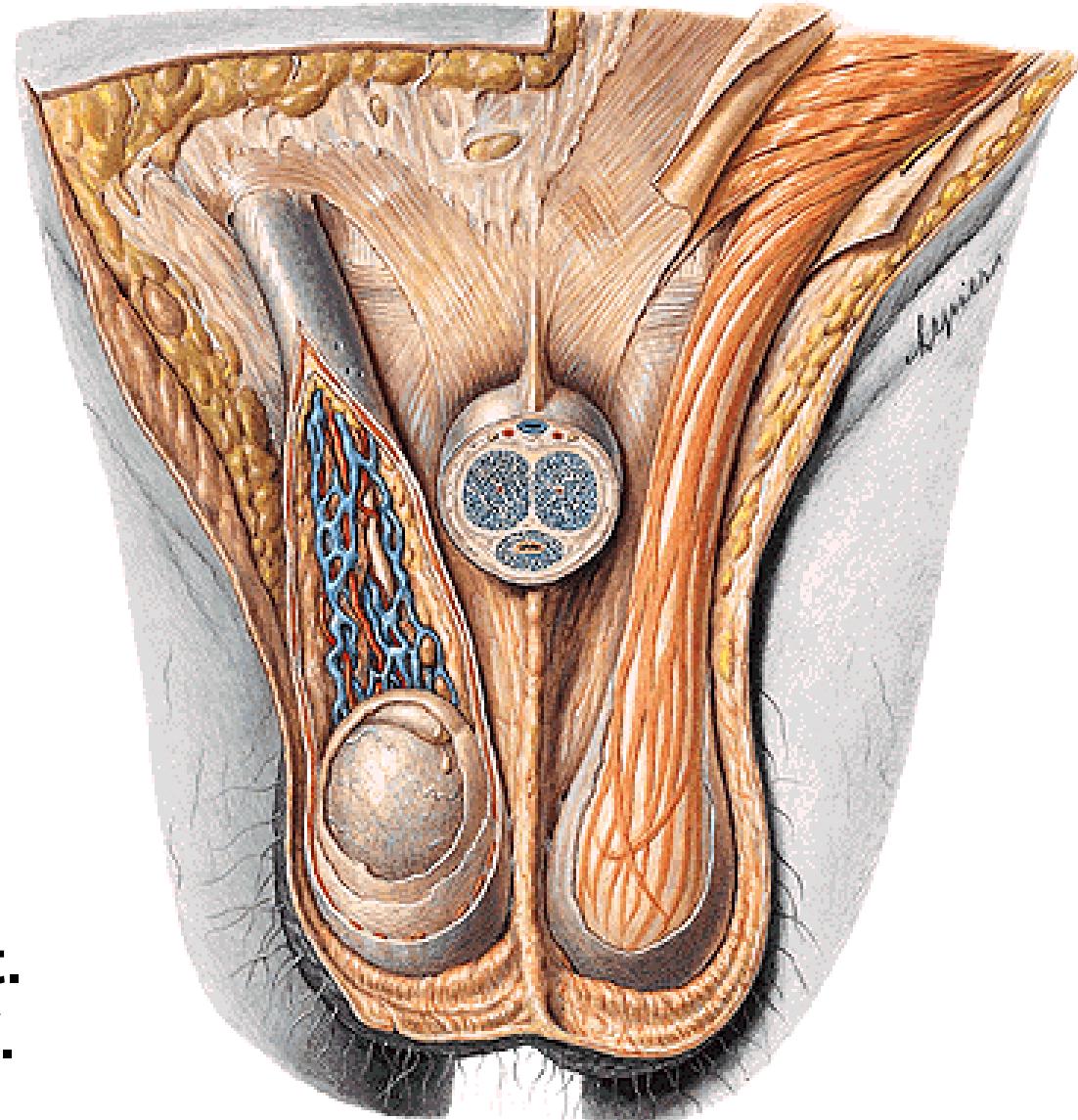
N. ilioinguinalis

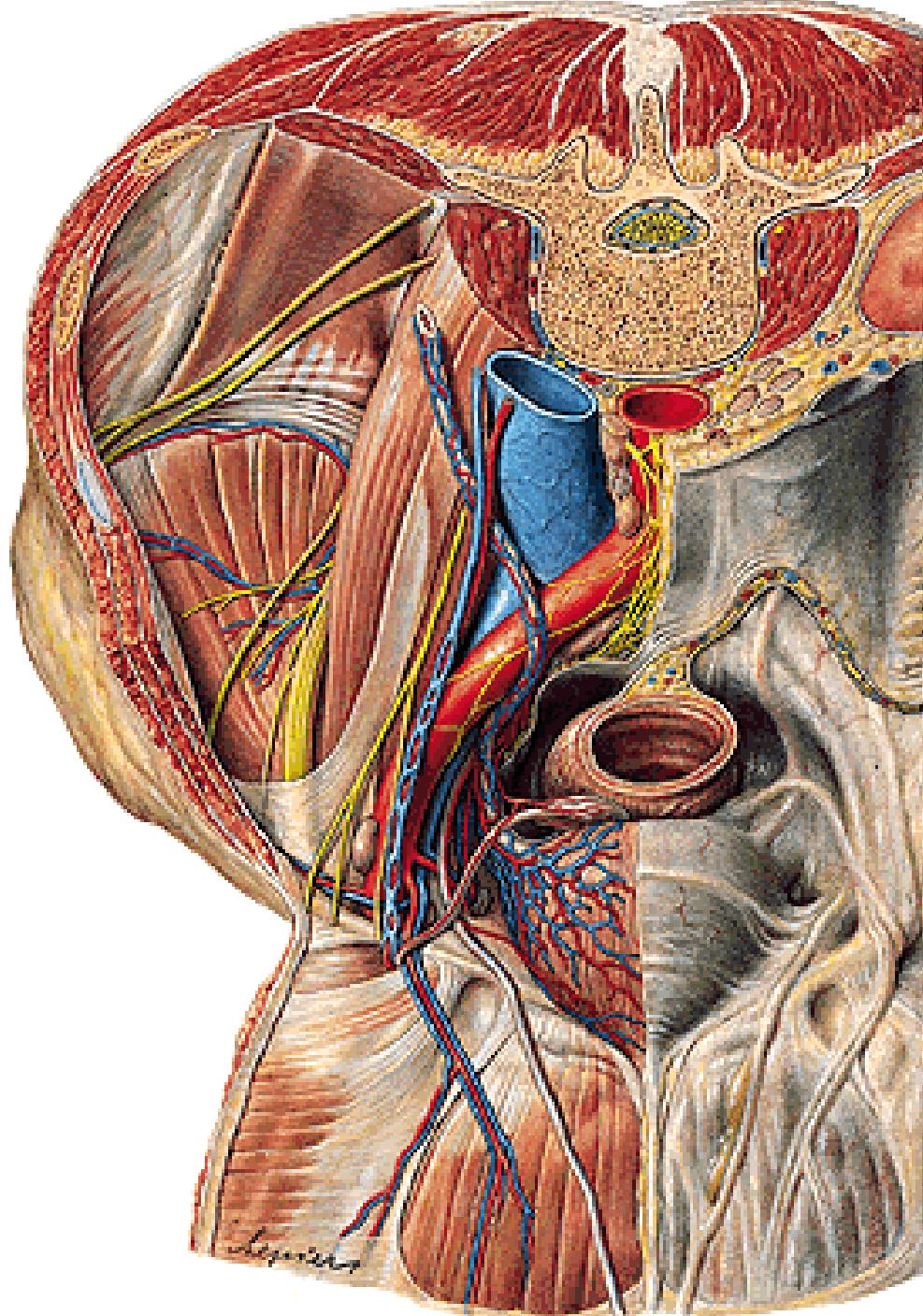
N. pudendus

N. cutaneus femoris post.

Plexus hypogastricus inf.

Hydrocele, varicocele





ANATOMICAL BASIS OF ERECTION

Parasympathetic stimulation

– relaxation of smooth muscle in cavernae and aa. helicinae, compression of venous plexuses by bulbospongious and ischiocavernous muscles → erection

Sympathetic stimulation

- contraction of smooth muscle of aa. helicinae, relaxation of bulbospongious and ischiocavernous muscles, drainage of blood into v. dorsalis penis prof. → detumescence

EJACULATION OF THE SEMEN

- 1. Emission of sperms and genital glands secretion**
- sympathetic stimulation
- 2. Expulsion of the semen from the spongy urethra (ejaculation) – parasympathetic stimulation**

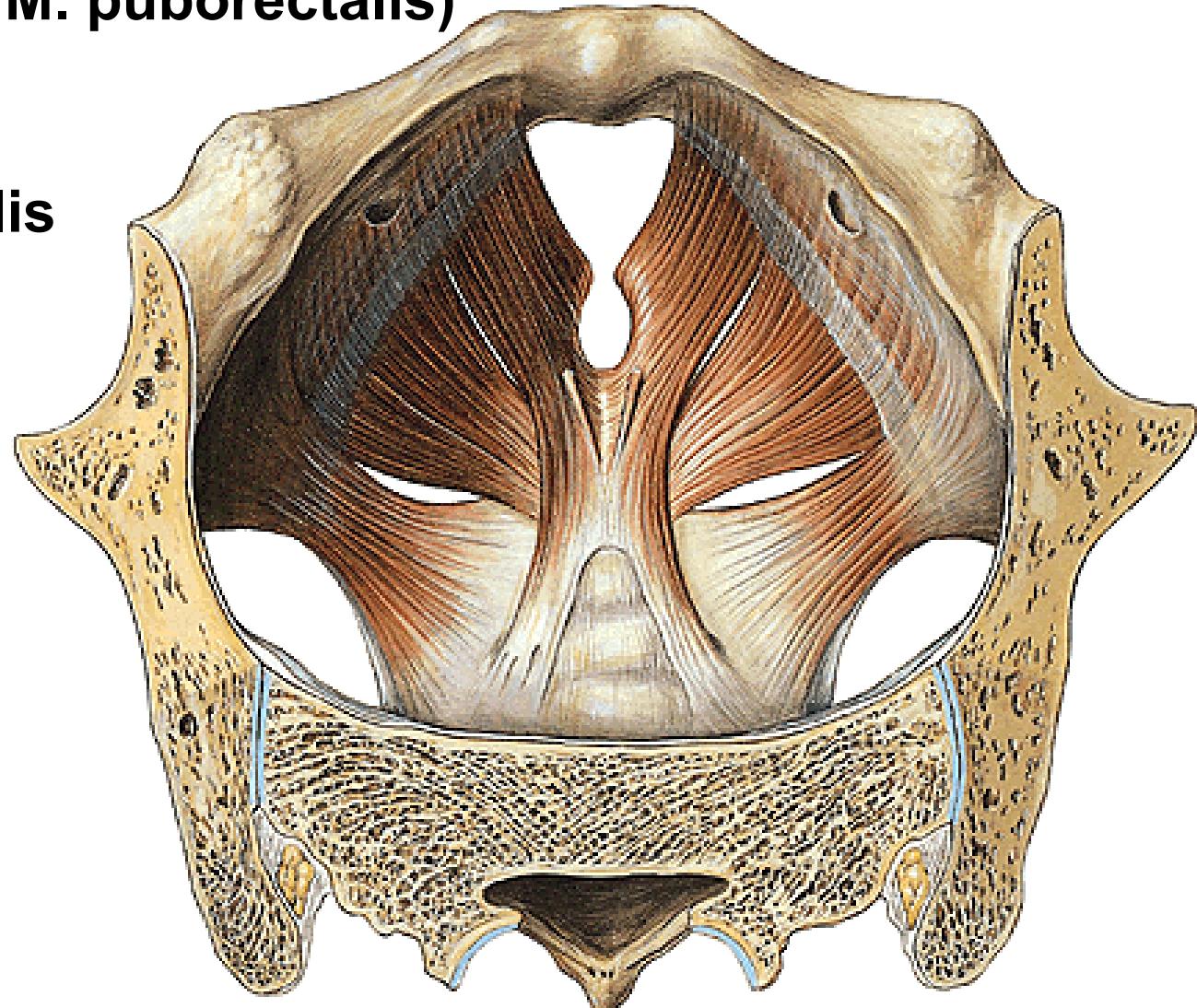
DIAPHRAGMA PELVIS

M. levator ani – pars iliaca (M. iliococcygeus)

- pars pubica (M. pubococcygeus)
- (- M. puborectalis)

M. coccygeus

Hiatus urogenitalis



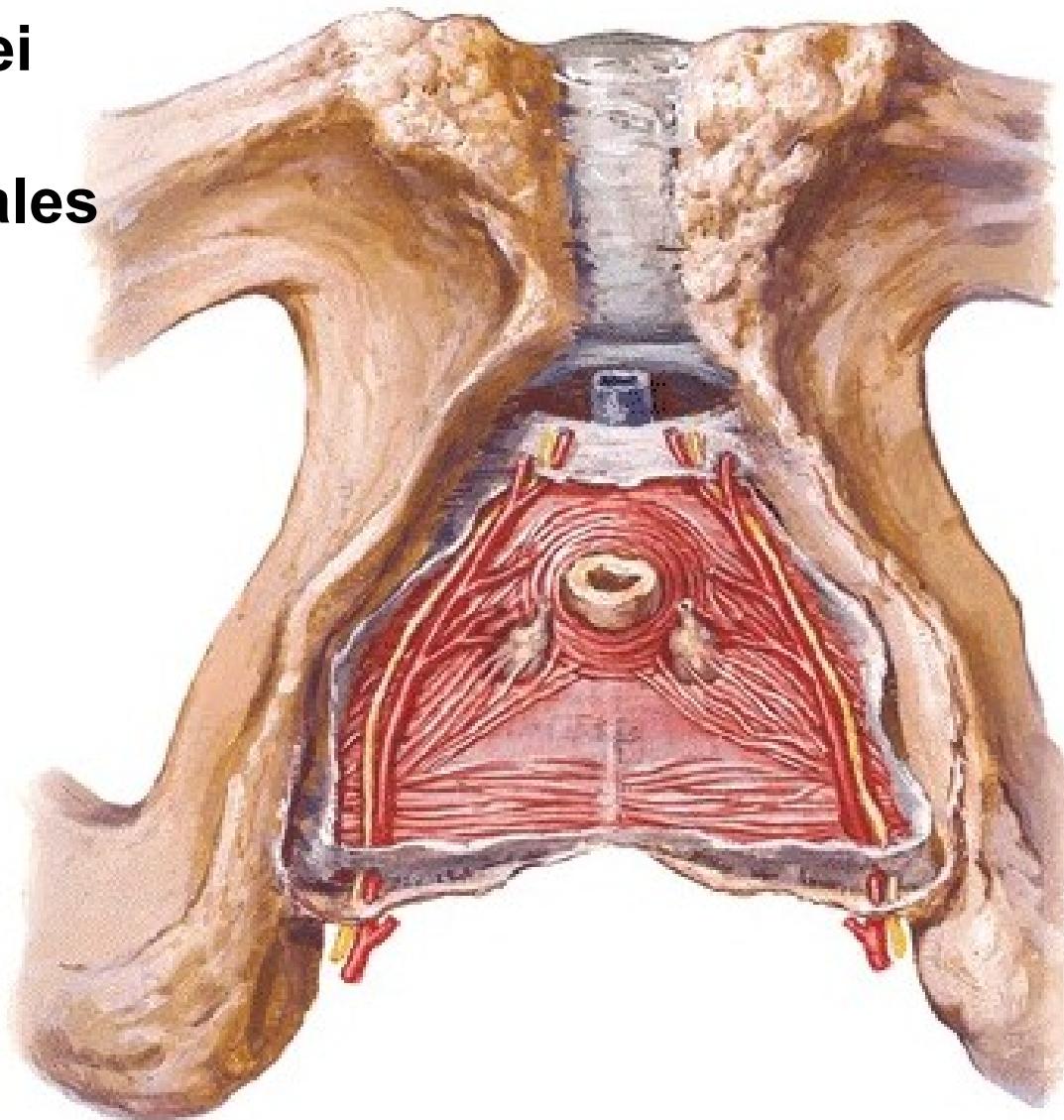
SACCUS PROF. PERINEI/DIAPHRAGMA UROGENITALE

M. transversus perinei profundus – Centrum perineale

M. sphincter urethrae

Lig. transversum perinei

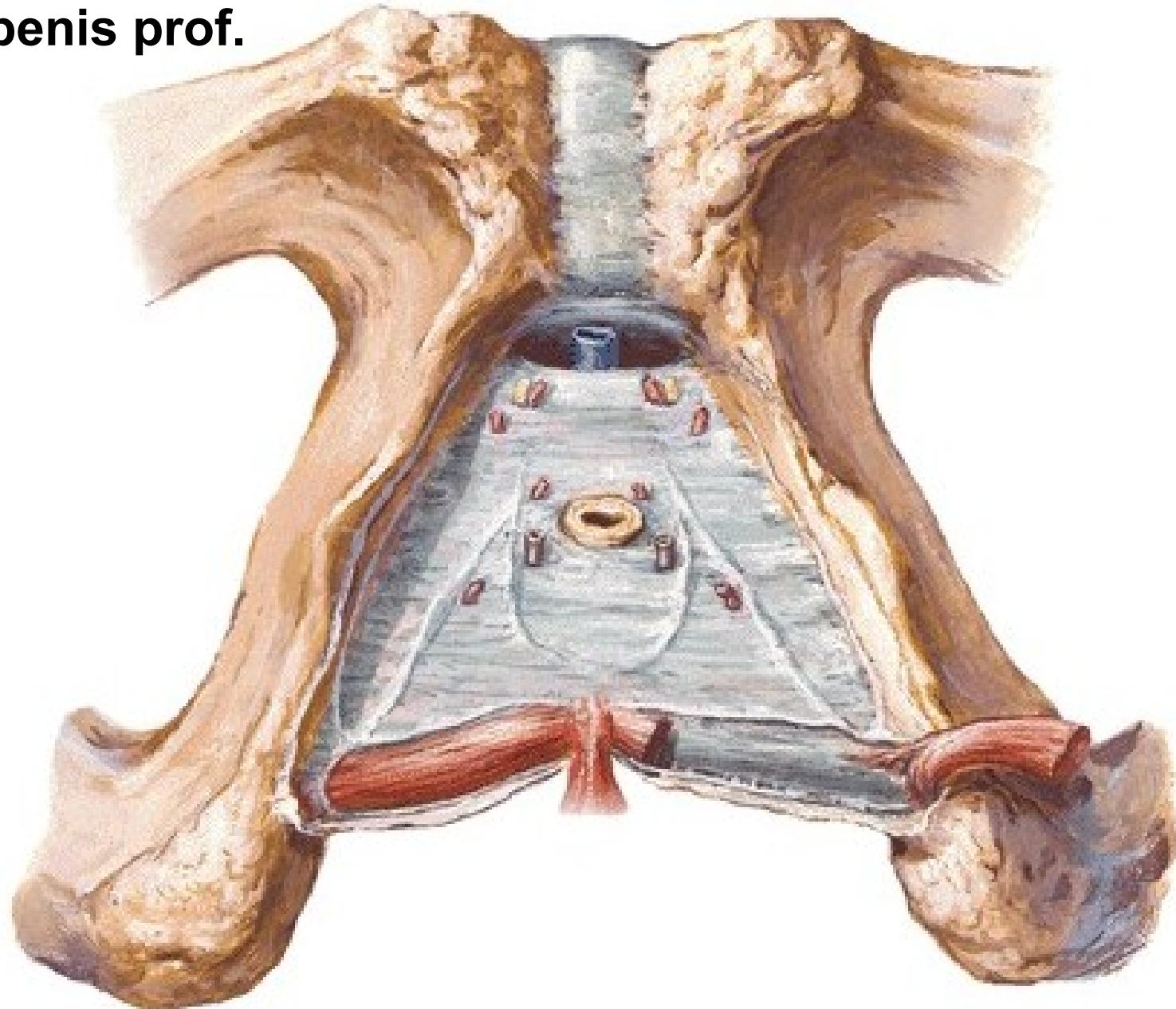
Glandulae bulbourethrales



M. transversus perinei spf.

Membrana perinei/Fascia inf. diaphragmatis urogenitalis

V. dorsalis penis prof.

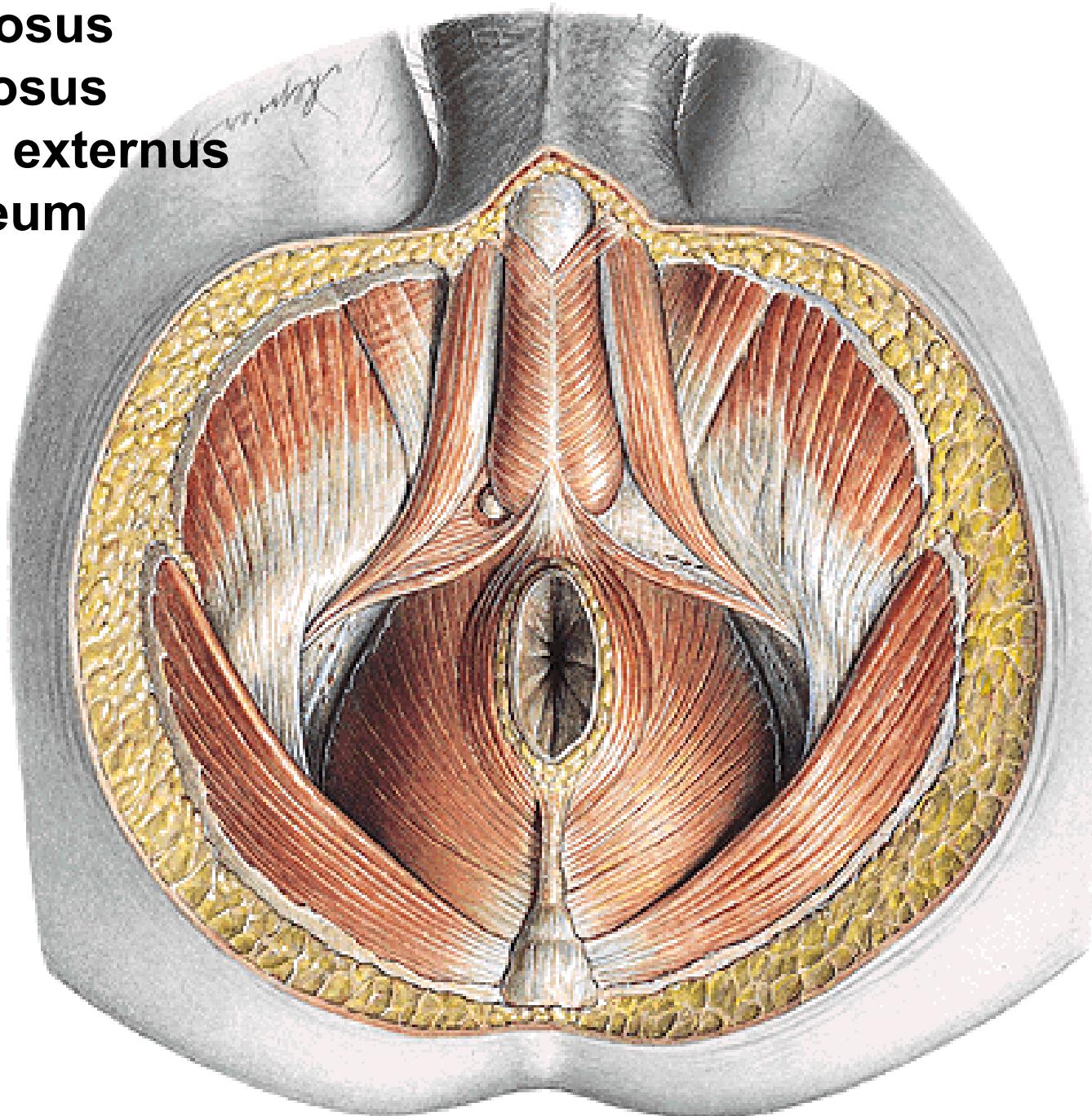


M. ischiocavernosus

M. bulbospongiosus

M. sphincter ani externus

Lig. anococcygeum



Fascia obturatoria
Canalis pudendalis
(Alcock)

Fascia sup. diaphragmatis
pelvis

Fascia inf. diaphragmatis
pelvis

Fossa ischiorectalis



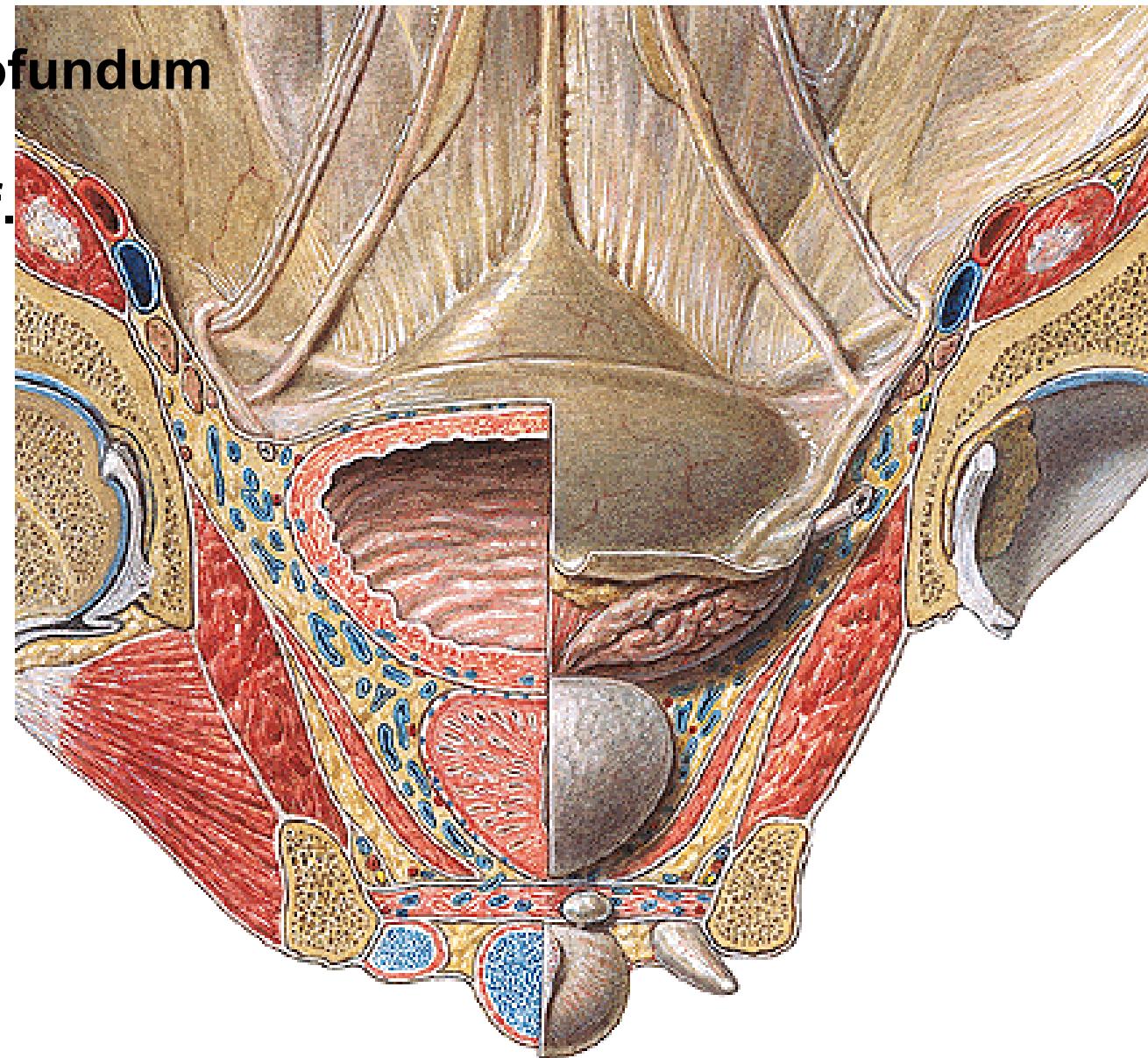
**Recessus pubicus
fossae ischio-
rectalis**

Spatium perinei profundum

Membrana perinei

Spatium perinei spf.

Fascia perinei spf.



Illustrations were copied from:
Atlas der Anatomie des Menschen/Sobotta.
Putz,R., und Pabst,R. 20. Auflage. München:
Urban & Schwarzenberg, 1993)

Netter: Interactive Atlas of Human Anatomy.
Windows Version 2.0

Čihák R: Anatomie 2 (Splanchnologia). Avicenum,
zdravotnické nakladatelství, Praha, 1988.