Pelvic viscera- reservoir

Position- children- abdominopelvic

neck – upper border symp. pubis

adults- pelvic

neck – lower border symp. Pubis

when distended- abdominopelvic

Shape- tetrahedral

ovoid

Capacity- 120-320 ml

micturition- 280 ml

filling upto 500 ml –pain

beyond voluntary control- 800 ml

Parts - apex

base- fundus

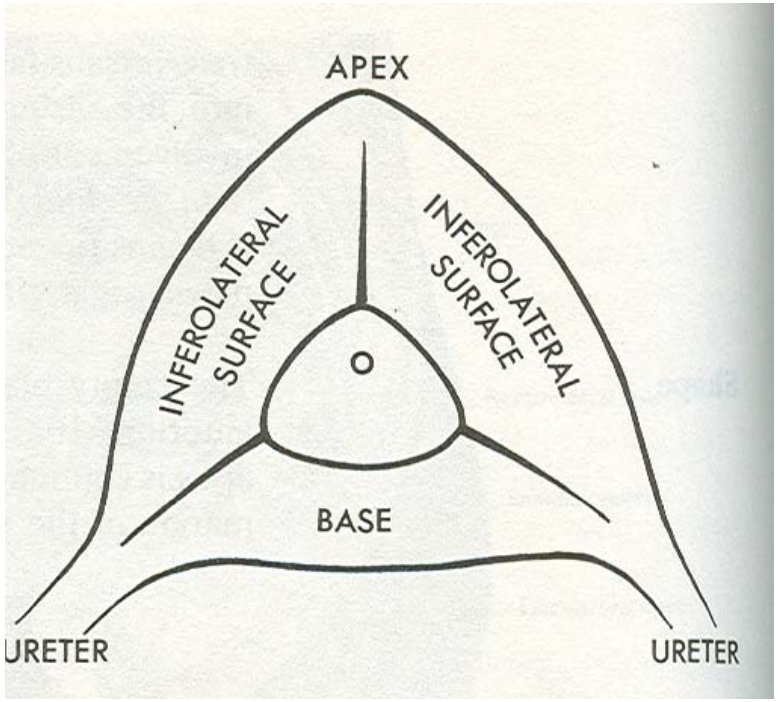
neck

Surfaces- superior , inferolateral

Borders- anterior

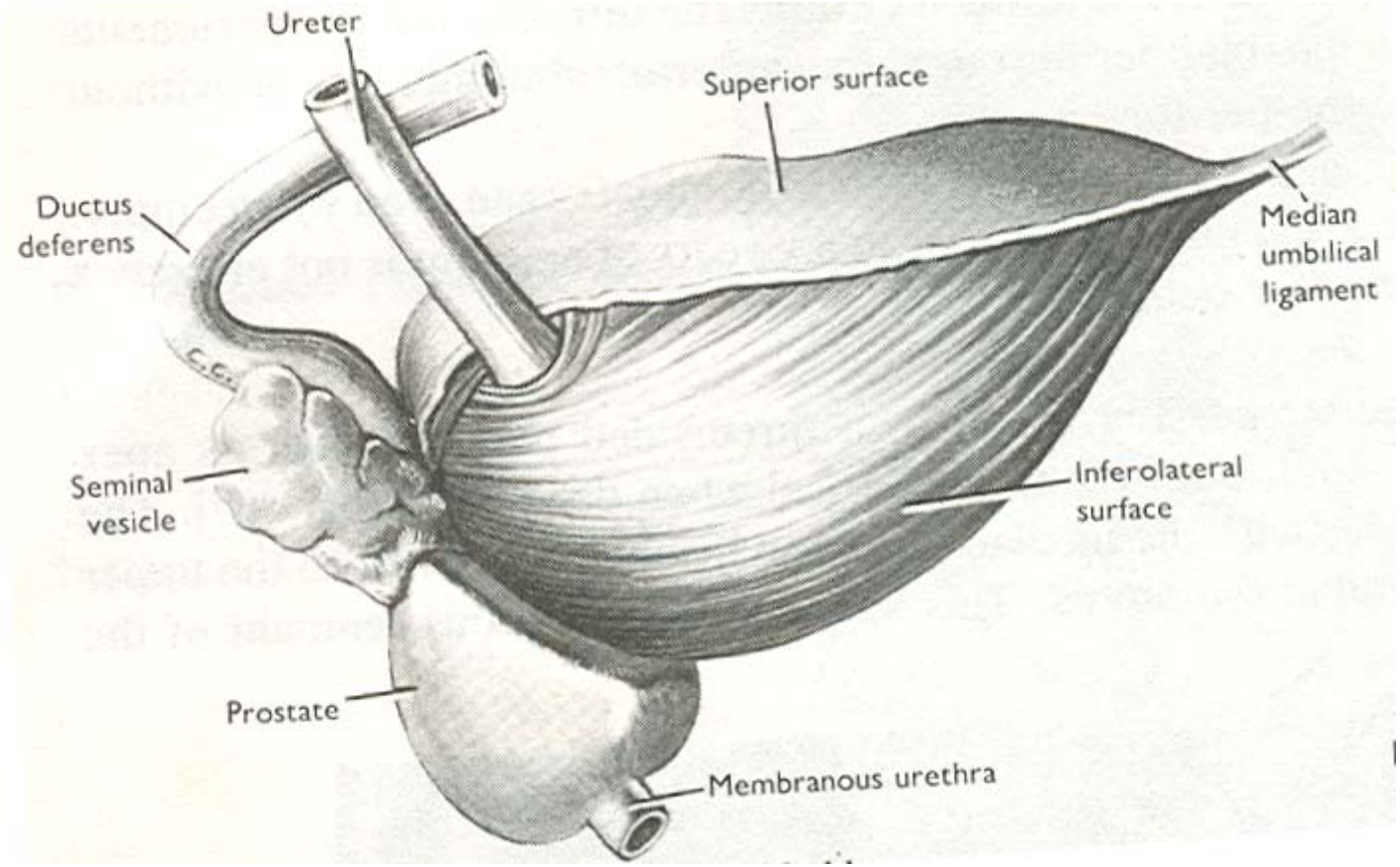
posterior

lateral



Apex- upwards and forward

median umbilical ligament (urachus)



Base- triangular , posteroinferior

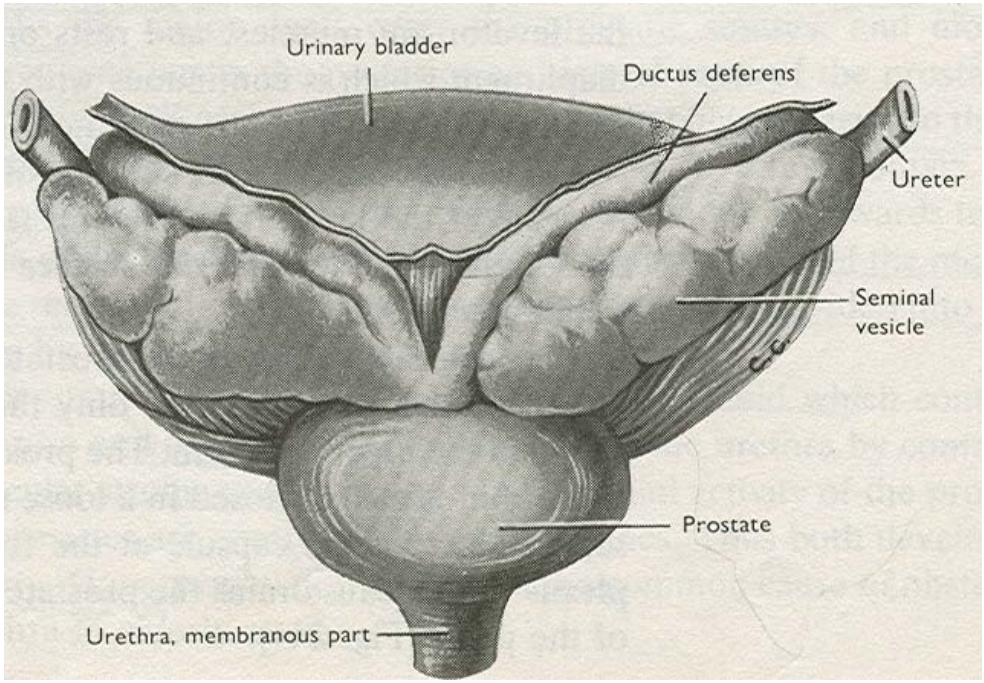
non- peritoneal

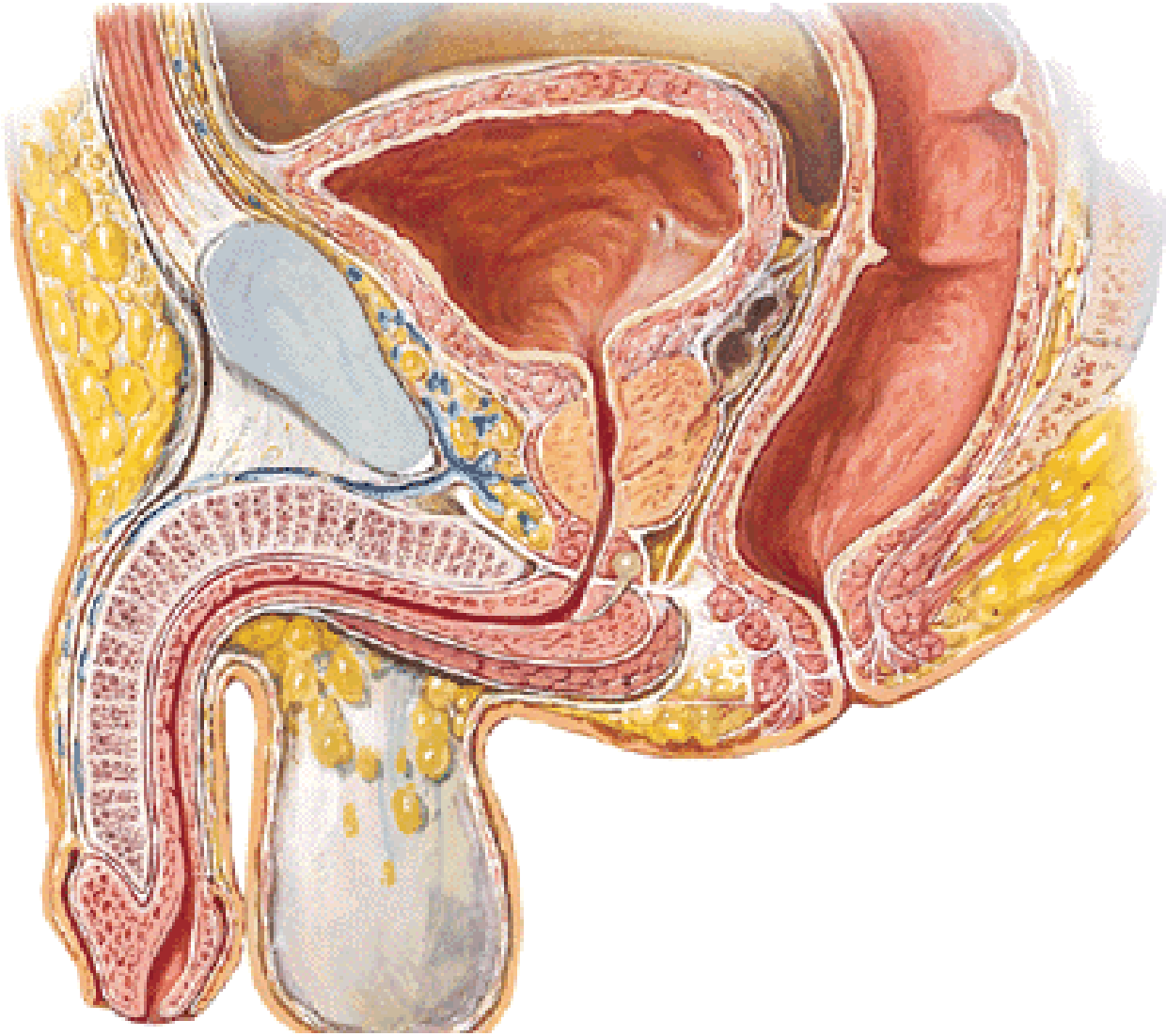
Relations in male- upper part ampulla rectum

lower part- seminal vesicles

ampulla vas deferens

rectovesical fascia

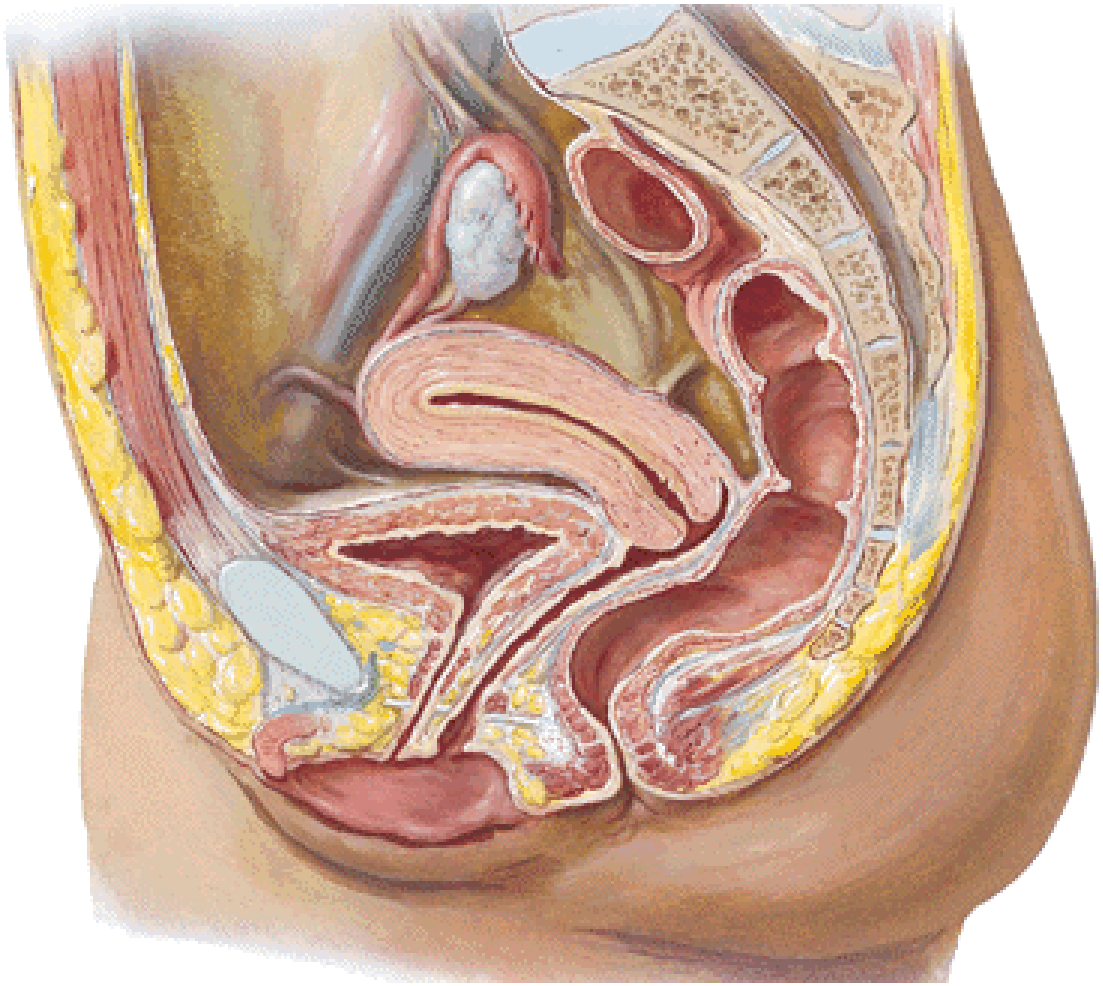




Relations of base in female

Upper part anterior vaginal wall

Supravaginal cervix



Superior surface- triangular, peritoneal

Inferolateral surface- peritoneal

Relations- pelvic surface pubis

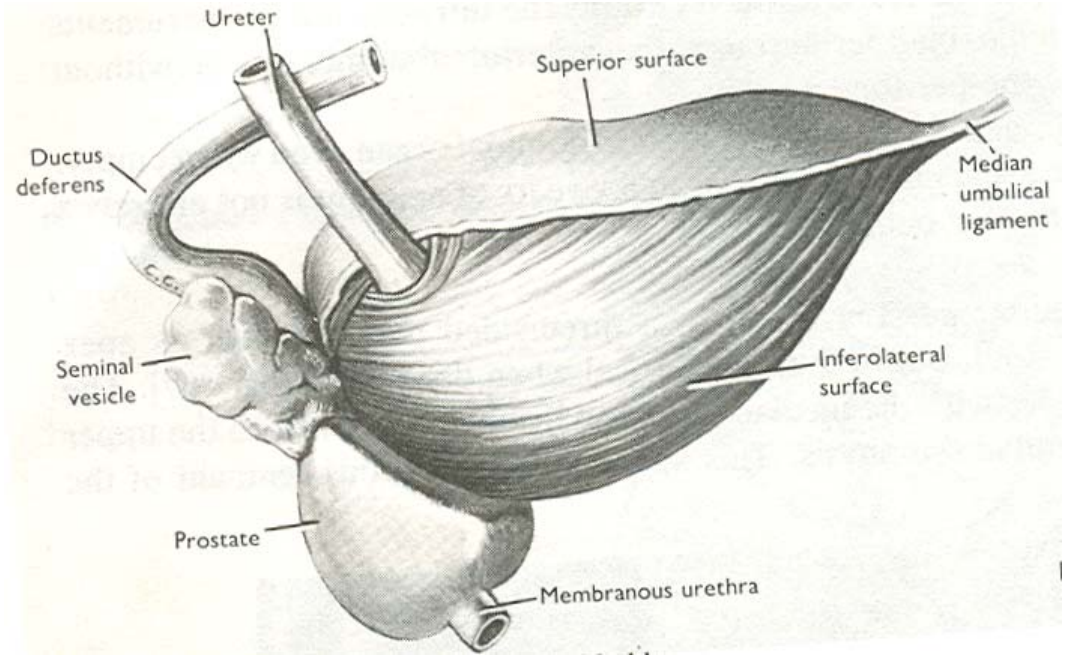
fascia over levator ani, obturator internus

retropubic fat, vesical vein plexus in potential space

Borders- lateral

anterior

posterior

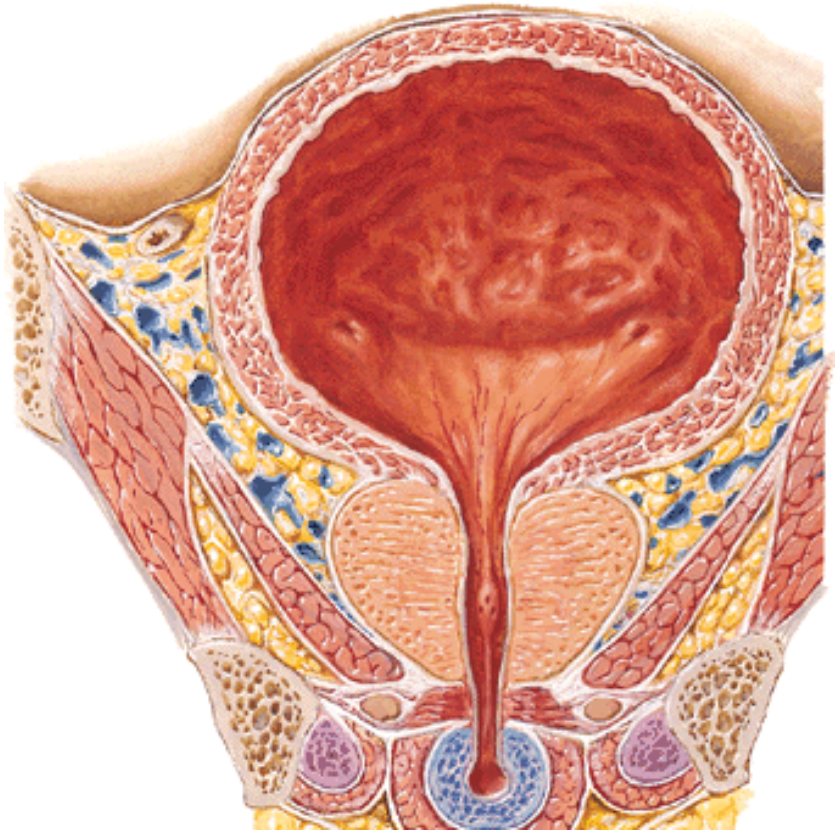


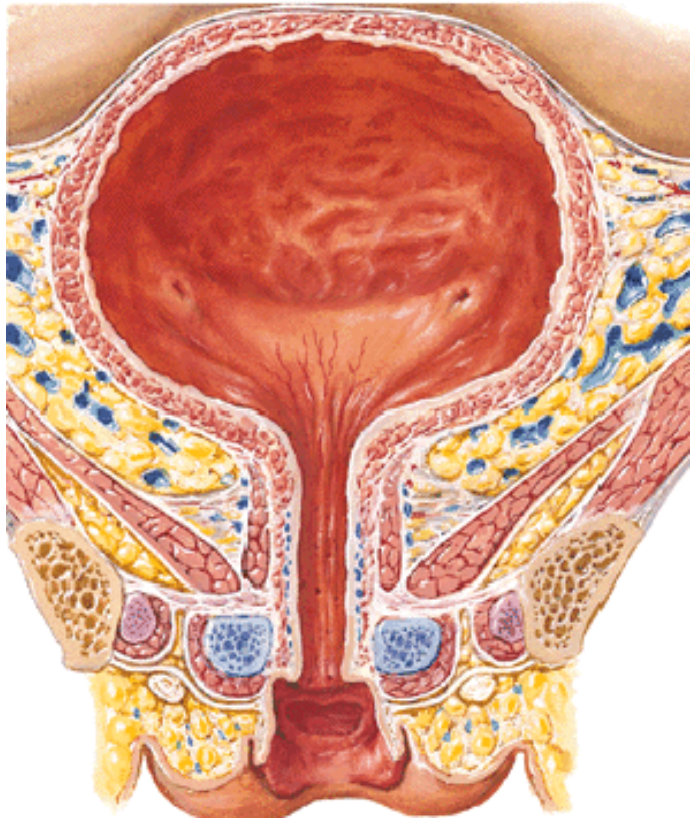
Neck- lowest point

3-4 cm behind lower border pubic symphysis

Male- base of prostate

Female- superior fascia urogenital diaphragm





LIGAMENTS OF BLADDER

True ligaments- fibromuscular

- Median umbilical ligament

- Puboprostatic or pubovesical

- Lateral ligaments

-Posterior ligaments

False ligaments- peritoneal folds

-Median and medial umbilical

- Lateral false ligament

-Sacrogenital folds

VESICAL INTERIOR

Mucosa attached loosely , folds

Over trigone- attached firmly

Trigone- posterolaterally- ureters- slit like, 2.5 cm apart

anteroinferiorly- internal urethral orifice- cresenteric uvula

Interureteric crest

Ureteric folds

STRUCTURE OF BLADDER

- Adventitia

- Muscular coat (detrusor)

Three ill defined layers- inner and outer longitudinal, middle circular

Middle layer- sphincter vesicae

In males , complete circular muscle

- Submucosa loose tissue except trigone

- Mucosa- urothelium

VASCULAR SUPPLY

Superior, inferior vesical arteries (ant. trunk internal iliac)

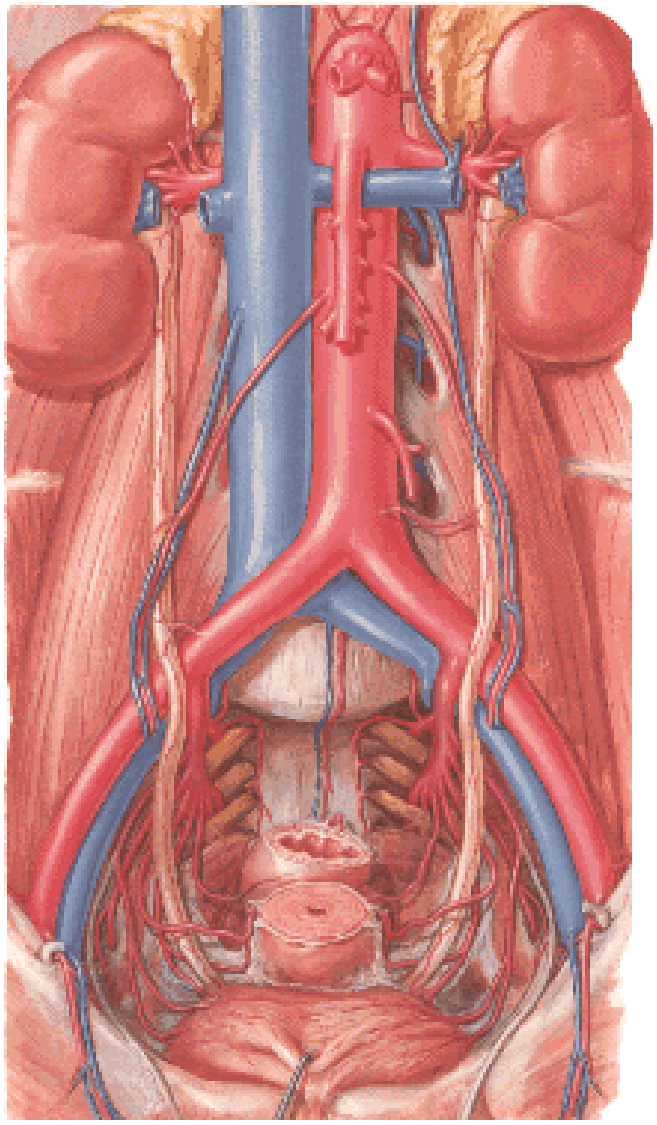
Obturator , inferior gluteal

Uterine artery in females

Veins- plexus along inferolateral surface

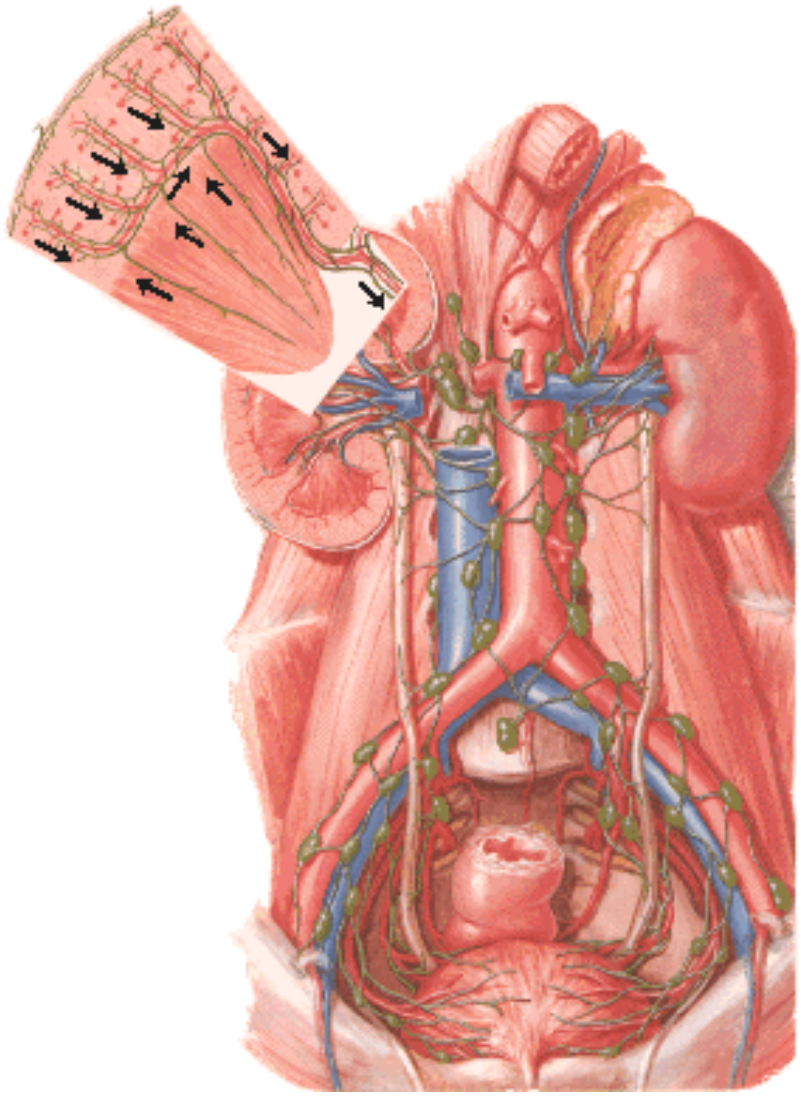
communicates with prostatic plexus

- int. iliac vein



Lymphatic drainage

External iliac nodes



Nerve supply

sympathetic T 11- L2 segments

Parasympathetic- S2- S4

APPLIED ANATOMY

cystoscopy

suprapubic cystostomy

URETERS

Thick walled tubes

25 cm length, 3 mm dia

Parts- renal pelvis, abdominal , pelvic part

Pelvis of ureter

funnel shaped

5-7 ml,

continuous at lower end of kidney

Abdominal part

beneath peritoneum

Relations-

posteriorly- psoas major

genitofemoral nerve

tips transverse processes

Right ureter

Peritoneum

Gonadal vessels

Duodenum

Superior mesen branches

Root mesentery

Terminal ileum

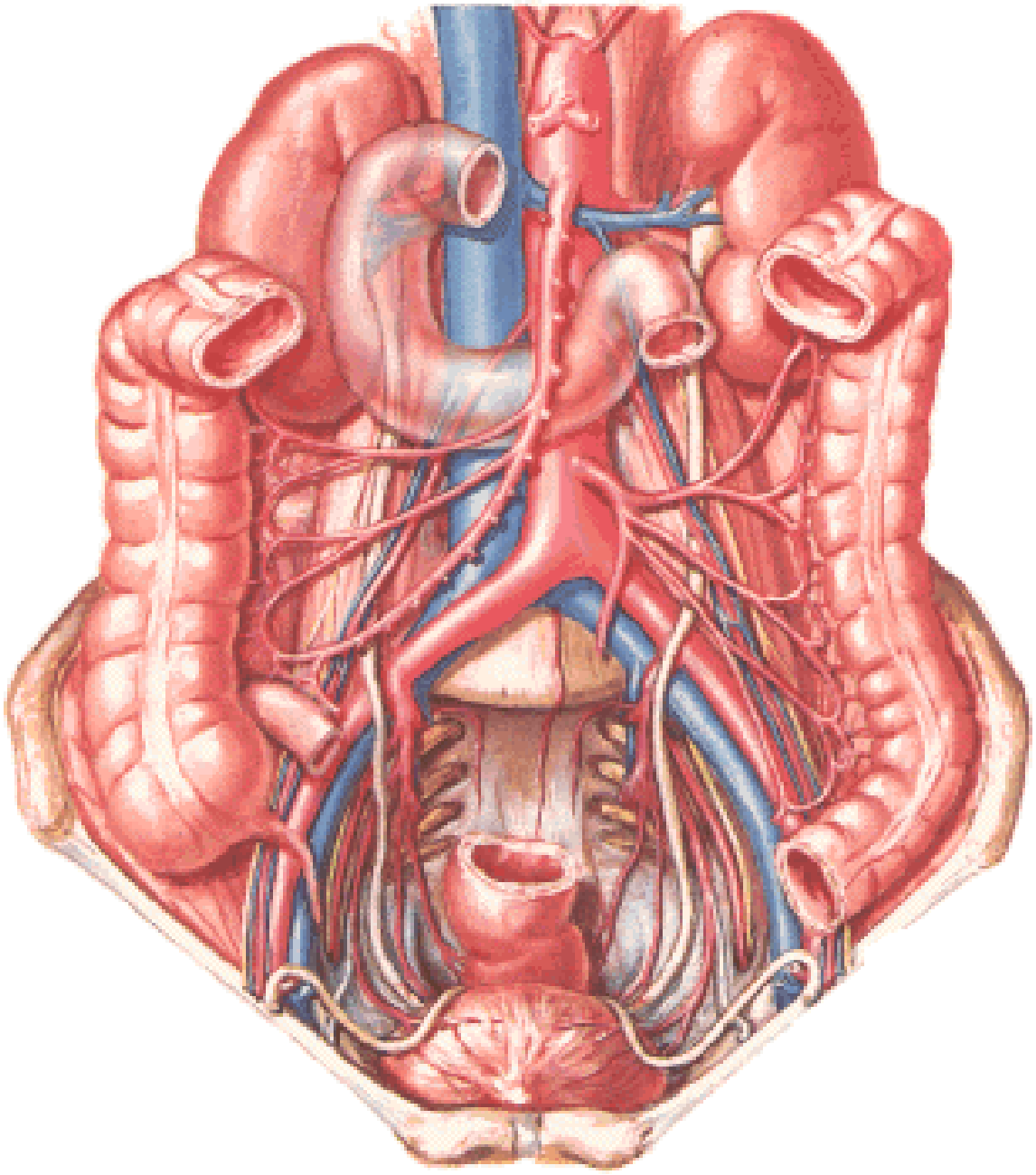
Left ureter

Peritoneum

Gonadal vessels

Inf. Mesen. Branches

Sigmoid mesocolon



Pelvic part

First or vertical part- upto ischial spine

ant.eriorly Ovary

posteriorly- internal iliac vessels

lumbosacral trunk

sacroiliac joint

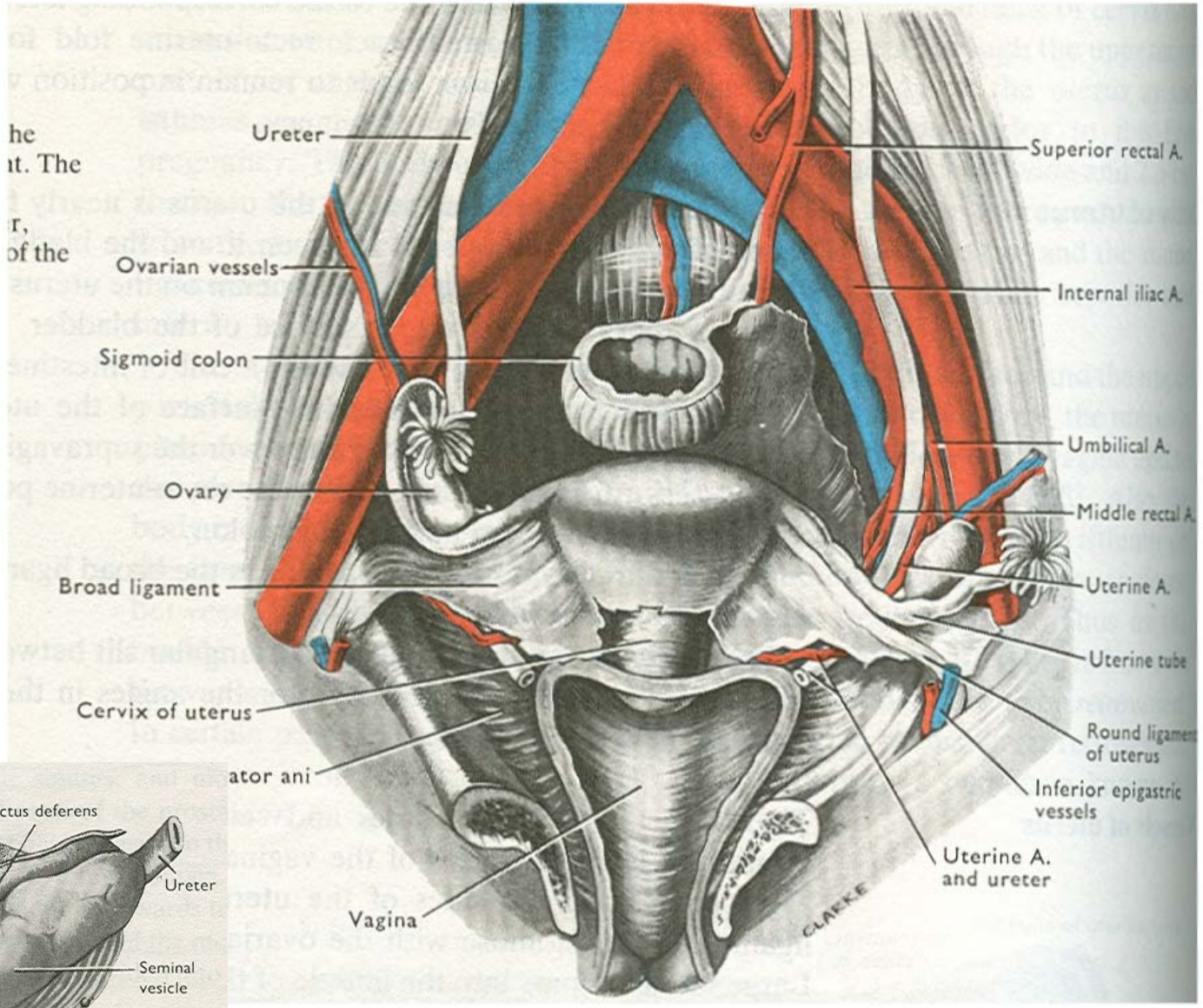
laterally- obturator nerve

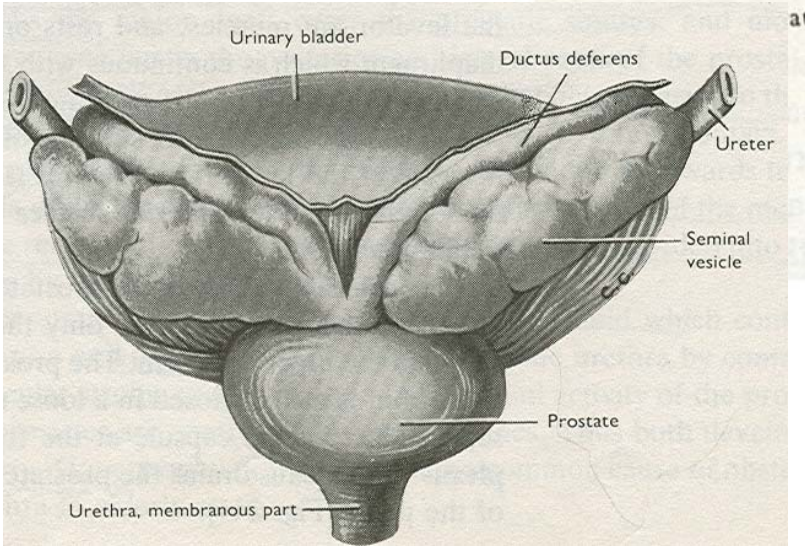
inf vesical, middle rectal

uterine, vaginal art

Second or oblique part- upto bladder

Third or intravesical part – 2 cm long


Ureter
Superior rectal A.
Ovarian vessels
Internal iliac A.
Sigmoid colon
Umbilical A.
Ovary
Middle rectal A.
Broad ligament
Uterine A.
Uterine tube
Cervix of uterus
Round ligament of uterus
ator ani
Inferior epigastric vessels
Uterine A. and ureter
Vagina
CLARKE


Urinary bladder
Ductus deferens
Ureter
Seminal vesicle
Prostate
Urethra, membranous part

Third part- ureteric fold in interior bladder

constrictions

Pelviureteric junction

Pelvic brim

Intravesical

Blood supply

Renal , gonadal, lumbar, common and internal iliac, inferior vesical, and in female by uterine and vaginal arteries

Veins drain into vena caval system

Lymphatic Drainage

a) Upper part – into para-aortic lymph nodes

b) Intermediate part – into common iliac lymph nodes

c) Lower part – into internal and external iliac lymph nodes

NERVE SUPPLY

Sympathetic nerves are derived from renal, gonadal and superior hypogastric plexuses