Blood supply to internal female genitalia:

artery	origin	distribution	Anastamoses?	Course
uterine	Internal iliac artery	Sup. large branch: uterus, inf. Small branch: cervix+ sup. Vagina	Yes, cranially with ovarian, caudally with vaginal	Medially in base of broad ligament to junction between cervix and uterus, run above ureter, ascend to anastamose
Vaginal	Uterine artery	Middle +inferior part of vagina along with pudendal artery	Yes, ant+post azygos arteries of vagina with uterine artery	Descand to vagina after branching at junction between uterus + cervix
Ovarian artery	Abdominal aorta	Ovary+ uterine tube	Yes, with uterine artery (collateral circulation between abdominal +pelvic source)	Descend along post. abdominal wall, at pelvic prim cross external iliac> enter suspensory ligament

vein	Drainage	Anastamoses?	Course
Vaginal	Vaginal venous plexus>vaginal vein> anastamose with uterine venous plexus >uterovaginal venous plexus>uterine vein>internal iliac vein	Yes, vaginal plexus with uterine plexus	Sides of vagina
Uterine	uterine venous plexus >uterovaginal venous plexus>uterine vein>internal iliac vein	Yes, vaginal plexus with uterine plexus	Pass in broad ligament
Ovarian	Pampiniform plexus of veins>ovarian vein Rt:IVC Lt:LRV	-	Plexus in broad ligament , ovarian vein in suspensory ligament

Note:

-tubal veins drain in ovarian veins+ uterovaginal venous plexus

-uterine vessels pass in cardinal ligament

Blood supply to external female genitalia:

artery	origin	distribution	Course
Internal pudendal	Internal iliac artery	Perineum +external genitalia	Leave pelvis through greater sciatic foramen hook around ischial spine then enter through lesser sciatic foramen. Pass through pudendal canal
Perineal	Internal pudendal	Superficial perineal muscles +vestibule	In superfiscial pouch beneath perineal membrane
Posterior labial	Superficial perineal branch	Labia majora +minora	Subcutaneous tissue of labia majora
Dorsal	Internal pudendal	Deep perineal pouch + clitoris	Peirce perineal membrane, pass through suspensory ligament of clitoris
external pudendal	femoral artery	mons pubis +ant. Labia majora	ant. To urogenital triangle

Note:

-pudendal artery, nerve,vein->pass in pudendal canal

-labial vein-> Internal pudendal vein

Blood supply to internal male genitalia:

artery	origin	distribution	Anastamoses?	Course
Testicular	Aorta	Testis+ epididymis	Yes, with artery of ductus deferens	Retroperitoneally->cross over ureters+ external iliac artery, pass through inguinal canal+ finally in spermatic cord
Artery of ductus deferens	Inferior vesical artery	Ductus deferens, ejaculatory duct	Yes, with testicular artery	Run subperitoneally, in spermatic cord
Prostatic artery	Inf. Vesical artery+ middle rectal artery branches of internal iliac artery	Prostate+seminal vesicle	-	On sides of prostate

vein	Drainage	Anastamoses?	Course
Testicular	From testis+epididymis >pampiniform venous plexus >testicular vein Rt:IVC Lt:LRV	8-12 anastamosing veins	Pass in spermatic cord
Prostatic venous plexus	Internal iliac artery	Sup: vesical venous plexus Post: internal vertebral venous plexus(that's why metastasis to vertebrae, skull,bone and pelvis)	Between prostatic capsule (true fibrous capsule)+prostatic sheath(facial capsule)

Blood supply to external male genitalia:

artery	origin	distribution	Course
Internal pudendal	Internal iliac artery	Perineum +external genitalia	Leave pelvis through greater sciatic foramen hook around ischial spine then enter through lesser sciatic foramen. Pass through pudendal canal
Perineal	Internal pudendal	Superficial perineal muscle +scrotum	Inf. To perineal membrane
Posterior scrotal	Superficial perineal branch	Scrotum	Subcutaneous of post. Scrotum (dartos facia?)
Dorsal artery of penis	Internal pudendal	Corpus spongiosum+spongy urethra+skin+connective tissue of penis	Pass through suspensory ligament of penis ,in dorsum of penis, on sides of deep dorsal vein
Deep artery of penis	Internal pudendal	Most erectile tissue	Within corpura cavernosa, pierce perineal membrane
External pudendal	Femoral artery	Ant. Scrotal branch supply ant. Scrotum, root of penis	Ant. Urogenital triangle
Cremasteric artery	Inferior epigastric artery	Scrotum	Run in spermatic cord

vein	Drainage	Course
Scrotal vein	External pudendal	-
Deep dorsal vein of penis(drain corpura cavernosa)	Prostatic venous plexus->internal iliac vein	Between arcuate pubic ligament+ transverse perineal ligament
superficial dorsal vein(superficial cover of penis)	Superficial external pudendal vein->greater saphenous->femoral vein	-

nerve supply to external male genitalia:

nerve	origin	Distribution
Dorsal nerve of penis(sympathetic)	Sacral splanchnic S2-S4 from pudendal nerve	Pass in deep pouch , sup. To perineal membrane, spply glans of penis+ somatic innervations to spongy urethra
Cavernous nerve(parasympathetic)	Pelvic splanchnicS2-S4-> prostatic nerve plexus	Helicine arteries(erection)
genital branch	Genitofemoral nerve[L1-L2]	Anterolateral scrotum
Ant. Scrotal	Ilioinguinal [L1]	ant. Scrotum
post. Scrotal	perineal branch of pudendal nerve	post. Scrotum
perineal branch	post. Cutaneous femoral nerve[S2-S3]	inf. Scrotum

nerve supply to external female genitalia:

nerve	origin	Distribution
pudendal nerve	S2-S4	Give rise to inf. Rectal, perineal,dorsal nerve of clitoris (actually its main nerve of perineum)
Perineal	Pudendal nerve	Deep branch->perineal muscles Superficial post. Labial branch->labia majora
Dorsal nerve of clitoris	Pudendal nerve	Glans + prepuce

NS to internal genitalia:

- Testicular nerve plexus: T10(T11) visceral afferent + sympathetic fibers surround testicular artery
- Prostatic plexus: S2-S4 pelvic splanchnic(parasympathetic), S2-S4 sacral splanchnic (sympathetic)
- Ovarian plexus
- Lower vagina+perineum=sensory +motor somatic fibers of pudendal nerveS2-S4
- Lower uerus+cevix+upper vagina= sensory +motor parasympathetic pelvic splanchnic nerve S2-S4
- Uterine body+ fundus = sensory +motor sympathetic fibers T11-L1 (lesser+least splanchnic) hypogastric plexus
- Uterovaginal nerve plexus= S2-S4 pelvic splanchnic(parasympathetic), S2-S4 sacral splanchnic (sympathetic)