

## Adult Reproductive System (TS28, P3+)

Edited version of MLSupplTable5.pdf from Little et al, 2007 (PMID: 17452023).

Edits were made by GUDMAP Editorial Office in May 2008 and are highlighted in yellow.

### Adult reproductive system (TS28sm)

- male reproductive system (EMAP:29348)
  - testis (EMAP:29352)
    - surface epithelium of testis
    - interstitium of the testis (syn: interstitial tissue) (EMAP:29359)
      - Leydig cell (EMAP:29656)
      - rest of interstitium of the testis (syn: non-specific mesenchyme) (EMAP:29361)
      - seminiferous tubule (EMAP:31477)**
        - Sertoli Cell (EMAP:31479)
        - peritubular myoid cell (EMAP:31481)
        - spermatogonium (EMAP: 31483)
        - spermatocyte (EMAP: 31485)
        - spermatid (EMAP: 31487)
        - spermatozoan (EMAP: 31489)
    - mediastinum testis (EMAP:29362)
    - rete testis (EMAP:29358)
    - vasculature of testis (EMAP:29604)
      - coelomic vessel (EMAP:29606)
      - interstitial vessel (EMAP:29608)
    - tunica albuginea of testis (EMAP:29363)
    - tunica vaginalis testis (EMAP:29364)
    - cremaster muscle (EMAP:29730)
    - testicular branch of genital nerve (EMAP:29732)
  - scrotum (EMAP:29384)
    - epidermal layer of scrotum (EMAP:29734)
      - basal layer (EMAP:29736)
      - stratified layer (EMAP:29738)
    - dermal layer of scrotum (EMAP:29740)
      - hair follicle (EMAP:29742)
      - sweat gland (EMAP:29744)
    - septum of scrotum (EMAP:29746)
    - vasculature of scrotum (EMAP:30792)
  - gubernaculum (syn: caudal suspensory ligament) (EMAP:29369)
  - cystic vesicular appendage (EMAP:29386)
  - inguinal canal (EMAP:29374)
  - inguinal ring (EMAP:29392)
    - external inguinal ring (EMAP:29393)
    - internal inguinal ring (EMAP:29394)
  - efferent duct (syn: vasa efferentia) (EMAP:29385)
    - epithelial layer of efferent duct (EMAP:29748)
    - rest of efferent duct (EMAP:29750)
  - appendix epididymis (EMAP:29391)
  - appendix testis (EMAP:29395)
  - ductus deferens (syn: vas deferens) (EMAP:29377)
    - epithelium of ductus deferens (EMAP:29378)
    - muscle layer of ductus deferens (EMAP:29379)
      - circular muscle layer of ductus deferens (EMAP:30056)
      - longitudinal muscle layer of ductus deferens (EMAP:30058)
    - adventitia of ductus deferens (EMAP:29768)
    - vasculature of ductus deferens (EMAP:30794)
- epididymis (EMAP:29370)
  - caput epididymis (EMAP:29373)
    - epithelium of caput (EMAP:29762)
    - muscle layer of caput (EMAP:29764)
    - adventitia of caput (EMAP:29766)
  - cauda epididymis (EMAP:29371)

- epithelium of cauda (EMAP:29694)
- muscle layer of cauda (EMAP:29752)
- adventitia of cauda (EMAP:29754)
- corpus epididymis (EMAP:29372)
  - epithelium of corpus (EMAP:29756)
  - muscle layer of corpus (EMAP:29758)
  - adventitia of corpus (EMAP:29760)
  - vasculature of epididymis (EMAP:30796)
- seminal vesicle (syn: vesicular seminalis) (EMAP:29349)
  - epithelium of seminal vesicle (EMAP:29772)
  - muscle layer of seminal vesicle (EMAP:29774)
  - adventitia of seminal vesicle (EMAP:29776)
  - vasculature of seminal vesicle (EMAP:30798)
- ejaculatory duct (EMAP:29387)
  - epithelial layer of ejaculatory duct (EMAP:29787)
  - rest of ejaculatory duct (EMAP:29789)
  - vasculature of ejaculatory duct (EMAP:30800)
- male accessory gland (EMAP:29779)
  - bulbourethral gland (syn: Cowper's gland) (EMAP:29782)
    - epithelial component of bulbourethral gland (EMAP:29791)
    - interstitium of bulbourethral gland (EMAP:29793)
    - vasculature of bulbourethral gland (EMAP:30804)
  - prostate gland (EMAP:29785)
    - anterior prostate gland (syn: coagulating gland) (EMAP:29795)
      - anterior prostatic epithelium (EMAP:29797)
        - glandular epithelium of anterior prostate (syn: secretory epithelium) (EMAP:29799)
        - ductal epithelium of anterior prostate (EMAP:29801)
      - anterior prostatic interstitium (EMAP:29803)
        - smooth muscle of anterior prostate (EMAP:29805)
        - rest of interstitium of anterior prostate (EMAP:29807)
    - dorsal prostate gland (EMAP:29809)
      - dorsal prostatic epithelium (EMAP:29811)
        - glandular epithelium of dorsal prostate (syn: secretory epithelium) (EMAP:29813)
        - ductal epithelium of dorsal prostate (EMAP:29815)
      - dorsal prostatic interstitium (EMAP:29817)
        - smooth muscle of dorsal prostate (EMAP:29819)
        - rest of interstitium of dorsal prostate (EMAP:29821)
    - lateral prostate gland (EMAP:29823)
      - lateral prostatic epithelium (EMAP:29825)
        - glandular epithelium of lateral prostate (syn: secretory epithelium) (EMAP:29827)
        - ductal epithelium of lateral prostate (EMAP:29829)
      - lateral prostatic interstitium (EMAP:29831)
        - smooth muscle of lateral prostate (EMAP:29833)
        - rest of interstitium of lateral prostate (EMAP:29835)
    - ventral prostate gland (EMAP:29837)
      - ventral prostatic epithelium (EMAP:29839)
        - glandular epithelium of ventral prostate (syn: secretory epithelium) (EMAP:29841)
        - ductal epithelium of ventral prostate (EMAP:29843)
      - ventral prostatic interstitium (EMAP:29845)
        - smooth muscle of ventral prostate (EMAP:29847)
        - rest of interstitium of ventral prostate (EMAP:29849)
    - vasculature of prostate gland (EMAP:30806)
- penis (EMAP:29380)
  - crus penis (EMAP:29381)
    - os penis (EMAP:29770)
    - corpus spongiosum (EMAP:29851)
      - epithelial layer of crus penis (EMAP:29853)
      - rest of crus penis (EMAP:29855)
  - glans penis (EMAP:29383)
    - corpus spongiosum (EMAP:29857)
      - epithelial layer of glans penis (EMAP:29859)
      - rest of glans penis (EMAP:29861)
  - prepuce of penis (EMAP:29382)

- vasculature of penis (EMAP:30808)
- mesorchium (EMAP:30063)
- female reproductive system (EMAP:29396)
  - ovary (EMAP:29419)
    - surface epithelium of ovary (syn: coelomic epithelium) (EMAP:30527)
    - tunica albuginea of ovary (syn: ovarian capsule) (EMAP:30526)
    - mesenchymal stroma of ovary (EMAP:29423)
      - cortical component of mesenchymal stroma of ovary (EMAP:29424)
      - medullary component of mesenchymal stroma of ovary (EMAP:29425)
    - primary follicle (EMAP:29427)
      - primary oocyte of primary follicle (EMAP:29429)
      - follicle cell of primary follicle (syn: granulosa cell of primary follicle) (EMAP:29428)
    - primordial follicle (EMAP:30756)
      - oocyte of primordial follicle (EMAP:30758)
      - follicle (EMAP:31249)
    - secondary follicle (EMAP:29863)
      - oocyte of secondary follicle (EMAP:29865)
      - follicle cell of secondary follicle (syn: granulosa cell of secondary follicle) (EMAP:29867)
        - cumulus of secondary follicle (EMAP:29869)
        - mural of secondary follicle (EMAP:29871)
      - theca of secondary follicle (EMAP:29873)
        - ) (secondary follicles don't have an antrum)
    - tertiary follicle (syn: antral follicle) (EMAP:30764)
      - oocyte of tertiary follicle (EMAP:30766)
      - follicle cell of tertiary follicle (syn: granulosa cell of tertiary follicle) (EMAP:30768)
        - cumulus of tertiary follicle (EMAP:30774)
        - mural of tertiary follicle (EMAP:30776)
      - theca of tertiary follicle (EMAP:30770)
      - antrum of tertiary follicle (EMAP:30772)
    - pre-ovulatory follicle (syn: Graafian follicle) (EMAP:30778)
      - oocyte of mature follicle (EMAP:30780)
      - germinal cell of mature follicle (syn: granulosa cell of mature follicle) (EMAP:30782)
        - cumulus of mature follicle (EMAP:30784)
        - mural of mature follicle (EMAP:30786)
      - theca of mature follicle (EMAP:30788)
      - antrum of mature follicle (EMAP:30790)
    - atretic follicle (EMAP:29875)
      - oocyte of atretic follicle (EMAP:29877)
      - apoptotic germinal cell (syn: apoptotic granulosa cell) (EMAP:29879)
      - theca of atretic follicle
    - ruptured follicle (syn: ovulated follicle) (EMAP:29881)
      - theca of ruptured follicle (EMAP:29883)
      - germinal cell of ruptured follicle (syn: granulosa of ruptured follicle) (EMAP:29885)
  - corpus luteum (EMAP:29887)
  - corpus albicans (EMAP:29896)
  - vasculature of the ovary (EMAP:29632)
    - rete ovarii of ovary (EMAP:29422)
- mesovarium (EMAP:29400)
- suspensory ligament of ovary (EMAP:29418)
- cystic vesicular appendage (EMAP:29404)
- Mullerian tubercle (EMAP:29399)
- oviduct (EMAP:29430)
  - infundibulum (EMAP:29898)
    - epithelial layer of infundibulum (EMAP:29900) (EMAP:29902)
    - muscle layer of infundibulum
      - longitudinal muscle layer of infundibulum
      - circular muscle layer of infundibulum

- serosa of infundibulum (EMAP:29904)
- rest of oviduct (EMAP:29906)
  - epithelial layer of rest of oviduct (EMAP:29908)
  - muscle layer of rest of oviduct (EMAP:30050)
    - longitudinal muscle layer of rest of oviduct (EMAP:30054)
    - circular muscle layer of rest of oviduct (EMAP:30052)
  - serosa of rest of oviduct (EMAP:29914)
- vasculature of oviduct (EMAP:30810)
- uterus (EMAP:29916)
  - endometrium (EMAP:29918)
    - uterine gland (EMAP:29920)
    - rest of endometrium (EMAP:29922)
  - myometrium (EMAP:29924)
  - adventitia of uterus (EMAP:29926)
  - cervix uteri (EMAP:29928)
    - epithelial layer of cervix uteri (EMAP:29930)
    - muscle layer of cervix uteri (EMAP:29932)
    - adventitia of cervix uteri (EMAP:29934)
  - vasculature of uterus (EMAP:30812)
- vagina (EMAP:29408)
  - lower part of vagina (EMAP:29409)
    - epithelial layer of lower part of vagina (EMAP:29410)
      - gland of lower vaginal epithelium (EMAP:29936)
      - rest of epithelial layer of lower vaginal epithelium (EMAP:29938)
    - muscular layer of lower part of vagina (EMAP:29411)
    - adventitia of lower part of vagina (EMAP:29940)
  - upper part of vagina (EMAP:29412)
    - epithelial layer of upper part of vagina (EMAP:29413)
      - gland of upper vaginal epithelium (EMAP:29942)
      - rest of epithelial layer of upper vaginal epithelium (EMAP:29944)
    - muscular layer of upper part of vagina (EMAP:29414)
    - adventitia of upper part of vagina (EMAP:29946)
  - vasculature of vagina (EMAP:30814)
- clitoris (syn:genital tubercle of female) (EMAP:30820)
  - crus of clitoris (EMAP:30822)
    - os clitoris (EMAP:30824)
    - epithelial layer of crus of clitoris (EMAP:30826)
    - mesenchymal layer of crus of clitoris (EMAP:30828)
  - glans clitoris (EMAP:30830)
    - surface epithelium of glans clitoris (EMAP:30832)
    - mesenchymal layer of glans clitoris (EMAP:30834)
  - vasculature of clitoris (EMAP:30836)
- inguinal canal of female (EMAP:29434)
- inguinal ring of female (EMAP:29415)
  - external (syn: superficial) (EMAP:29416)
  - internal (syn: deep) (EMAP:29417)
- labia (EMAP:30838)
  - epithelial layer of labia (EMAP:30840)
  - mesenchymal layer of labia (EMAP:30842)
  - gland of labia (EMAP:30844)
  - vasculature of labia (EMAP:30846)

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**GROUP TERMS:**

**male external genitalia (GROUP) (EMAP: 30983)**

- penis (EMAP:29380)
  - crus penis (EMAP:29381)
    - os penis (EMAP:29770)
    - corpus spongiosum (EMAP:29851)
    - epithelial layer of crus penis (EMAP:29853)
    - rest of crus penis (EMAP:29855)

- glans penis (EMAP:29383)
  - corpus spongiosum (EMAP:29857)
  - epithelial layer of glans penis (EMAP:29859)
  - rest of glans penis (EMAP:29861)
- prepuce (EMAP:29382)
- vasculature of penis (EMAP:30808)
- scrotum (EMAP:29384)
  - epidermal layer of scrotum (EMAP:29734)
    - basal layer (EMAP:29736)
    - stratified layer (EMAP:29738)
  - dermal layer of scrotum (EMAP:29740)
    - hair follicle (EMAP:29742)
    - sweat gland (EMAP:29744)
  - septum of scrotum (EMAP:29746)
  - vasculature of scrotum (EMAP:30792)

**female external genitalia (GROUP) (EMAP: 30990)**

- clitoris (genital tubercle of female) (EMAP: 30820)
  - crus of clitoris (EMAP: 30822)
    - epithelial layer of crus of clitoris (EMAP: 30826)
    - mesenchymal layer of crus of clitoris (EMAP: 30828)
    - os clitoris (EMAP: 30824)
  - glans clitoris (EMAP: 30830)
    - mesenchymal layer of glans clitoris (EMAP: 30834)
    - surface epithelium of glans clitoris (EMAP: 30832)
  - vasculators of clitoris (EMAP: 30836)
- labia (EMAP: 30838)
  - epithelial layer of labia (EMAP: 30840)
  - gland of labia (EMAP: 30844)
  - mesenchymal layer of labia (EMAP: 30842)
  - vasculature of labia (EMAP: 30846)

**epithelium of vagina (GROUP) (EMAP: 30996)**

- epithelial layer of lower part of vagina (EMAP: 29410)
  - gland (EMAP: 29936)
  - rest of epithelial layer (EMAP: 29938)
- epithelial layer of upper part of vagina (EMAP: 29413)
  - gland (EMAP: 29942)
  - rest of epithelial layer (EMAP: 29944)

**muscular layer of vagina (GROUP) (EMAP: 31002)**

- muscular layer of lower part of vagina (EMAP: 29411)
- muscular part of upper part of vagina (EMAP: 29414)

**adventitia of vagina (GROUP) (EMAP:31004)**

- adventitia of lower part of vagina (EMAP: 29940)
- adventitia of upper part of vagina (EMAP: 29946)

**epithelium of epididymis (GROUP) (EMAP: 30446)**

- epithelium of caput of epididymis (EMAP: 29762)
- epithelium of cauda of epididymis (EMAP: 29694)
- epithelium of corpus of epididymis (EMAP: 29756)

**muscle layer of epididymis (GROUP) (EMAP: 30448)**

- muscle layer of caput of epididymis (EMAP:29764)
- muscle layer of cauda of epididymis (EMAP: 29752)
- muscle layer of corpus of epididymis (EMAP: 29758)

**adventitia of epididymis (GROUP) (EMAP: 30444)**

- adventitia of caput of epididymis (EMAP:29766)

adventitia of cauda of epididymis (EMAP: 29754)  
adventitia of corpus of epididymis (EMAP: 29760)