FEMALE REPRODUCTIVE SYSTEM

Revised 12 April 2016
Martini’s 6th: 1065-1093, Martini’s 7th: 1048-1068, 8th: 1060-1081, 9th: 1049-1062
Martini 10th: 1068-1093. SM:772 from Ganong, and Elson, It’s Your Body

Internal Anatomy (p 1069& 1017, 1074):
- Ovaries (p 1072)
  - ovarian ligament: ties ovary to uterus
  - Fimbria (“Fingers”) catch release egg
  - Fallopian Tube: oviduct, lined with ciliated columnar epithelium, smooth muscle surrounding
  - round ligament: ties ovaries to uterus
  - broad ligament: fold of peritoneum loops over fallopian tube
- Uterus ("leather bag")
  - Fundus ("bottom")
  - Cervix ("Neck") of the uterus
  - Endometrium: internal lining of uterus, shed once a month
  - Myometrium: smooth muscle, oxytocin triggers contractions

External genitalia, collectively known as vulva ("wrapper") or pudendum ("ashamed") (p 1080):
- Mons pubis: ("mountain hairy") mound of fatty tissue over pubic symphysis covered with hair after puberty
- Labia majora: ("lips big") rounded folds extend back from mons pubis
  - outer surfaces: pigmented, covered with hair
  - Inner surfaces: smooth, glabrous, moist due to large sebaceous glands
- Labia minora: ("lips little") anteriorly surround clitoris, highly vascular, lack hair posteriorly surround vestibule into which open the vagina and urethra, non-keratinized
- Bartholin's gland: open into vestibule (homologous to bulbourethral in male)
- Skene's (paraurethral) glands also secrete lubricant
- Hood or Prepuce: homolog to foreskin in male.
- Clitoris: ("little key") elongated, mostly covered by prepuce, located at ant. junct. of labia minora. Homologous to corpus spongiosum in male, it is erectile, highly sensitive to stimulation, contributes to sexual arousal
  - urethra: opens below clitoris, between labia minora
  - vagina: ("sheath"), mucous stratified squamous, Lactobacillus produces lactic acid, $\hat{p}H = 3.5 - 4.5$
- Bulb of the vestibule: erectile tissue deep to labia. Homologous to corpus cavernosa in male. acts to narrow vaginal opening, squeeze penis.

Perineum: ("around anus") draw to show four points: pubic symphysis, two ischial tuberosities, coccyx

OVARIAN CYCLE: P 1084-1085 (see next set of lecture notes.)

cycle 1: Ant Pit makes FSH, causes follicles to develop,
make theca interna makes androgen, granulosal cells convert it to estrogen
estrogen inhibits Ant Pit from making FSH
less developed follicles degenerate, lead follicle grows to Graafian follicle, incr estrogen
high estrogen causes Ant Pit to release Luteinizing Hormone

cycle 2: Luteinizing Hormone causes Graafian follicle to rupture (ovulation), fill with blood yellow cells colonize blood clot, form corpus luteum which secretes estrogen and progesterone progesterone inhibits release of luteinizing hormone by Ant Pit.

1st day: day menst begins. dev. primordial follicles enlarge, 6th-day all but one degenerate
14th day: Graafian follicle ruptures, ovum picked up by fimbria, corpus luteum forms, secretes estrogens and progesterone

Corpus albicans scars over. Endometrium enlarges under stim by estrogens, progesterone causes endo to secrete Progesterone withdrawal, endo shrinks.