Reproductive Systems (Ch. 14 & 15)
Medical Terminology

I. Male reproductive system – Fig. 14-1
   A. Scrotum & testes (sing. = testis) or orch/o-; didy-
      1. divided sac
      2. testes contain microscopic tubules that produce sperm (spermatozoon; pl. = spermatozoa)
      3. testosterone produced by different cells between tubules
      4. testes develop in pelvic cavity, descend into scrotum ~ 7th month of development
         cryptorchidism (cryptorchism) = failure to descend
         (hidden)
   B. perineum: clinically from posterior scrotum → anus
      ↓“anus”
   C. Duct system

       Testis
       ↓
       Epididymis – C-shaped, single coiled tubule “upon” & posterior to testis
       ↓
       Ductus (vas) deferens – runs with testicular A & V as spermatic cord through inguinal
       canal in body wall
       ↓
       Ejaculatory duct – connects vas deferens to urethra
       ↓
       Urethra – through prostate, then penis
       ↓
       External urethral orifice (meatus)

   D. Accessory glands -- Produce bulk of seminal fluid [ + sperm = semen]
      1. seminal vesicles
         --2 glands posterior to bladder
         --produces most of semen
      2. prostate [note spelling!]
         --single gland inferior to bladder
         --surrounds urethra
      3. bulbourethral (Cowper’s) glands
         --inferior to prostate

   E. Penis
      1. 3 elongated masses of erectile tissue
      2. tip = glans penis = balan/o-
         “acorn”
         --covered by prepuce (“foreskin”) – removed by circumcision

   F. Clinical
      1. protrusions (-cele) → Fig.14-3
         hydrocele = fluid
         spermatocoele = cystic mass w/sperm in epididymis
         blood vessels = varicocele
2. vasectomy vs. vasovasostomy (reversal)

3. aspermia vs. azoospermia
   ↓
   absence of living sperm
   ↓
   seminal fluid in semen
   ↓
   normal after vasectomy

4. benign prostatic hypertrophy vs. benign prostatic hyperplasia vs. prostatic cancer (BPH)
   ↓
   Increase in cell size
   ↓
   -if severe, treated by TURP (Fig. 14-10)
   Transurethral resection of the prostate

   DRE (digital rectal exam) – can palpate enlargement

5. testicular cancer is based on germ cells of origin
   seminoma vs. nonseminoma
   ↓
   most common, more aggressive
   easily treatable

6. Major sexually transmitted diseases/infections (STDs/STIs)
   3 bacterial:
   i. chlamydia: usually asymptomatic, most common STD
   ii. gonorrhea: (“seed discharge”)
   iii. syphilis: asymptomatic, or chancre (bloodless ulcer), or “great imitator”

   4 viral:
   i. hepatitis B
   ii. herpes simplex virus type 2 (HSV-2) “genital herpes”: lies dormant and can recur repeatedly throughout life
   iii. HIV
   iv. human papilloma virus (HPV) – 20 million (?) currently infected (50-90%?): flat genital warts on mucus membranes, cauliflower-like on skin (condyloma acuminatum)
      -Gardasil vaccine provides partial protection

7. Operative/Therapeutic terms (where’s the Cialis and Viagra?)
   brachytherapy – implantation of radioactive “seeds” near prostate
   "short"

   circumcision
   “around” "cut"
II. Female reproductive system – Fig. 15-1

gynecology = study of female reproductive system
“woman”

A. external genitalia = vulva (covering) or episi/o
   1. labium majus & labium minus [text Latin is wrong]  
      pl. = labia majora & labia minora
   2. enclose reproductive & urinary openings in vestibule (space between labia minora)
   3. clitoris is erectile tissue anteriorly (fix leader line on Fig. 15-1)

B. perineum: clinically vulva→anus  
   episiotomy = incision to facilitate birth

C. ovary = “oophor/o” → pronounced “o – off – or”  
   1. produces ova = released in ovulation
   2. each ovum is surrounded by follicular cells that produce estrogen & progesterone

D. uterine (fallopian) tubes = “salping/o”  
   1. fringed end (fimbriae) – capture ovum
   2. lined with ciliated epithelium to create current for capture and transport

   adnexa = collective term for ovaries and uterine tubes
   or
   right & left uterine appendages

E. uterus (= metr-, hyster-) “womb”  
   1. gross anatomy
      ➢ fundus = “base” between entrance of uterine tubes
      ➢ cervix = “neck”  
         o internal os [correct text] → opening between cervix & uterus
         o external os → opening between cervix & vagina  
            - location for Papanicolaou (Pap) smear to detect cervical cancer
   2. hollow, muscular organ
      • myometrium = muscular layer
      • endometrium = partially shed in menstruation “month”
   3. displacement of the uterus → Fig. 15-5  
      anteflexion = excessive forward bend of body/cervix angle
      retroflexion vs. retroversion  
      ↓ backward bend “tipping” of entire uterus,
      of body/cervix normal angle

E. uterus (= metr-, hyster-) “womb”  
   4. “pelvic floor relaxation” is failure of supportive ligaments → Know Fig. 15-7
      - 5 types, may combine
      - common complication after pregnancy
      - colporrhaphy A & P repair: which?

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F. vagina ("sheath") = “colp/o”, “birth canal” commonly
1. introitus = vaginal orifice
   - covered partially by hymen at birth
2. Bartholin (greater vestibular) glands – secrete lubricant
3. relatively common site of fistula
   --vesicovaginal
   --rectovaginal
   --urethrovaginal

G. mammary glands = mast/o-, mamm/o → Fig. 15-2
mammary gland ≠ breast
mammary papilla = “nipple”
areola = pigmented area around nipple (helps infant locate?)

1. modified sweat glands (should be covered with Integumentary system!)
   produce milk = lactation
2. size variation in non-pregnant women due to adipose tissue, not a reflection of
   nursing capacity
3. presence of more than two breasts/nipples [polymastia/polythelia (supernumerary
   nipples)] is a reflection of our evolutionary heritage

H. Clinical
1. removal of ovary and uterine tube = salpingo-oophorectomy
   --uterus = hysterectomy
   --“everything” = total hysterectomy & bilateral salpingo-oophorectomy

2. salpingitis vs. salpingostomy et. al. → watch pronunciation
   “-ji”          “go-“

3. breast cancer is most common female cancer
   -- biopsy types (7): Fig. 15-10 & pp. 725-726
   -- surgical procedures: Fig. 15-17
   o Note spelling: mastectomy

4. cervical neoplasia/dysplasia = “cervical cancer”
   • potential (cervical intraepithelial neoplasia [CIN] – 3 grades)
     vs.
     localized malignant (carcinoma in situ [CIS])
   • highly treatable
     cryosurgery (Fig. 15-14)
   or
     loop electrosurgical excision procedure (LEEP)/large-loop excision of the
     transformation zone (LLETZ) → (Fig. 15-16)

5. Major sexually transmitted diseases (STDs) → same as male
gonorrhea: leading cause of pelvic inflammatory disease (PID)
III. Pregnancy → Fig. 15-4
A. Terms
   fertilized ovum → 8\textsuperscript{th} week → 40\textsuperscript{th} week → Birth
   ↓  ↓  ↓
   embryo    fetus
   ↓
greatest chance of congenital abnormalities
   • thus, estimated date of confinement/delivery (EDC/EDD) is normally 280 days (40 weeks) from last menstrual period (LMP)

B. Placenta = “flat cake”
   1. maternal (endometrium) + embryo/fetal tissue (chorion)
   2. major source of nutrition/waste removal/gas exchange from 8\textsuperscript{th} week on
   3. placenta previa refers to malposition near cervical canal (Fig. 15-20)
   4. abruptio placenta = premature detachment of a normally situated placenta

C. Fetal membranes (4)
   1. amnion (amniotic sac)
      • floats embryo/fetus in clear amniotic fluid
      • tested via amniocentesis (Fig. 15-21)
      • polyhydramnios
   2. chorion → major contributor to placenta
      • tested via chorionic villus sampling (CVS)

D. Obstetrics = “midwife”
   - field of medicine dealing with pregnancy
   - OB-GYN, but not always both

      gravi\textit{da} = “\textit{pregnant woman}”, so nulligravida & primigravida
      \textit{para} = “\textit{to bear}”, i.e. live birth, so nullipara, primipara, & multipara
      (Don’t confuse with “alongside”)

E. Clinical
   1. Preeclampsia/pregnancy-induced hypertension (PIH)
      vs.
      eclampsia → convulsions/coma
      • AKA “toxemia of pregnancy” – not literally: unknown cause
   2. Abortion (AB) – 6 categories
      • spontaneous abortion (SAB) = “miscarriage” + 4 variations
      • therapeutic abortion (TAB) = to protect the health of the mother
   3. D & E – dilation and evacuation (removal of conceptus)
      vs.
      D & C – dilation and curettage: sometimes used as a synonym, but also performed as a biopsy or to control bleeding, remove polyp