Female Reproductive System

- Internal Organs:
  - Ovaries
  - Fallopian tubes
  - Uterus
  - Vagina
Female Reproductive System

- External genitalia
  - Labia minora
  - Labia majora
  - Clitoris
  - Bartholin glands
  - Mons pubis
  - Pubic bone
Purpose of Female Reproductive Organs

• Designed to produce ova
• Produce female sex hormones
• Favorable environment for a developing fetus
Ovaries

- Almond-shaped glands located in the pelvic cavity one on each side
  - Graafian follicles
    - Contain ovum
  - Ovulation
    - Graafian follicle ruptures to release ovum
Ovulation

- [Link](http://www.youtube.com/watch?v=nLmg4wSHdxQ)
- [Link](http://news.bbc.co.uk/2/hi/health/7447942.stm)
Fallopian Tubes

- Two tubes
- Extend out from uterus
- Fimbriae-finger like projections
- Where fertilization happens
Uterus

- Contains & nourishes the embryo
- Hollow muscle
- Inverted-pear shaped
- 3 parts
  - Fundus
  - Body
  - cervix
Vagina

- Muscular tube
- Extends from cervix to exterior
Mammary Glands

- Present in both sexes
- Function only in females
- Secrete milk – lactation
- Adipose tissue enlarges the size
- 15-20 lobules
- Lactiferous duct
- Nipple
- Areola
Medical Word Elements Related to Female Anatomy

- Cervic/o
- Colp/o, Vagin/o
- Hyster/o, uter/o
- Mamm/o, mast/o
- Oophor/o, ovari/o
- Perine/o
- Salping/o
Obstetrics

• Branch of medicine that manages the health of a woman and her fetus during pregnancy, childbirth and postpartum
Menarche

- The initial menstrual period, occurs at puberty around age 12
Dysmenorrhea

- Menstrual pain and tension
- Treated with estrogen
Metrorrhagia

• Irregular uterine bleeding between menstrual periods
• Most significant form of menstrual disorders
  – Symptomatic of disease, both benign and malignant tumors
Menorrhagia or Hypermenorrhea

- Profuse of prolonged bleeding during regular menstruation
Premenstrual Syndrome (PMS)

- A disorder with a range of symptoms
  - Headaches
  - Fatigue
  - Mood changes
  - Anxiety
  - Depression
  - Uncontrolled crying spells
  - Water retention
Premenstrual Syndrome (PMS)

- Occurs several days before the onset of menstruation and ends once menses begins
- Most will seek medical assistance due to mood
Pregnancy

- Lasts 9 months
- 0-3 months = embryo
- 3-9 mo = fetus
Fertilization

• The union of a humanoid egg and sperm

• http://www.babycenter.com/2_inside-pregnancy-fertilization_10354435.bc
Gestation

- Length of time from conception to birth
Labor

• 3 stages
  – Stage of dilation
  – Stage of expulsion
  – Placental stage
Cervical Effacement & Dilation
(Borramiento y Dilatación Cervical)

**Effacement** - the gradual thinning, shortening and drawing up of the cervix measured in percentages from 0 to 100%.

**Borramiento** - el adelgazamiento, acortamiento y encogimiento gradual del cuello uterino medido en porcentajes del 0 al 100%.

**Dilation** - the gradual opening of the cervix measured in centimeters from 0 to 10 cm.

**Dilatación** - La apertura gradual del cuello uterino medida en centímetros de 0 a 10 cm.
Viable

• Capable of sustaining life; denotes a fetus sufficiently developed to live outside of the uterus

• 500g 24 weeks
Abortion

• Termination of pregnancy before the embryo or fetus is capable of surviving outside of the uterus
Abruptio placentae

- Premature separation of a normally situated placenta
Placenta Previa

• Condition in which the placenta is attached near the cervix and ruptures prematurely
Amnion

- Membrane, continuous with and covering the fetal side of the placenta, that forms the outer surface of the umbilical cord
Amniocentesis

- Transabdominal puncture of the amniotic sac with ultrasound guidance
- Needle removes amniotic fluid
  - Fetal lung maturity
  - Chromosome analysis
Chorionic Villus Sampling (CVS)

• Sampling of placental tissues for prenatal diagnosis of potential genetic defects

• [http://www.youtube.com/watch?v=gE27feoZVk](http://www.youtube.com/watch?v=gE27feoZVk)
Ultrasound US

- Process by which high-frequency sound waves produce and display an image from reflected “echoes” on a monitor.
Cerclage

- Suturing the cervix to prevent it from dilating prematurely during pregnancy
- Decrease chance of abortion
- Removed prior to delivery
Cesarean Birth

- Incision of the abdomen and uterus to remove the fetus
- C-section
Dilation and Curettage (D&C)

- Widening of the cervical canal with a dilator and scraping of the uterine endometrium with a curette
Episiotomy

- Incision of the perineum from the vaginal orifice
- Facilitate childbirth
Dystocia

- Difficult labor, which may be produced by the large size of the fetus or the small size of the pelvic outlet
Gestational Terms

• Gravida- pregnant woman
• Multigravida – been pregnant more than once
• Multipara – delivered more than one viable infant
• Para- given birth to one or more infants
pelvimetry

- Measurement of pelvic dimensions
- Determine babies fit through the pelvis
Cephalopelvic Disproportion

- Babies head is too large to fit through the mother’s pelvis
- Failure to Progress
Shoulder Dystocia

- The anterior shoulder of the infant cannot pass below the pubic symphysis
Medical Word Elements Related to Female Reproduction

• Men/o
• Nat/o
• -arche
• -gravida
• -para
• -tocia
• Ante-

• Dys-
• Endo-
• Multi-
• Post-
• Primi-
Corpus Luteum

- Ovarian scar tissue that results from ruptured follicle
- Produces progesterone after ovulation
Oligomenorrhea

- Scanty or infrequent menstrual flow
Retroversion

• Turning or state of being turned back, especially an entire organ, such as the uterus
Dyspareunia

- Occurrence of pain during sexual intercourse
Endocervicitis

- Inflammation of the mucous lining of the cervix
- Chronic
- Caused by infection
Fibroids

• Benign uterine tumors composed of muscle and fibrous tissue
Contraceptive Diaphragm

- Contraceptive device
- Hemisphere of thin rubber bonded to a flexible ring
- Used with spermicidal jelly
- Cover cervix
Hormonal Contraception

• Use of hormones to suppress ovulation and prevent contraception
Intrauterine Device

- Plastic or metal object placed inside the uterus to prevent implantation of a fertilized egg
Infertility

• Inability or diminished ability to produce offspring
Sterility

• Inability of the female to become pregnant or the male to impregnate the female
Pelvic Inflammatory Disease (PID)

- Inflammation of the uterus, fallopian tubes, ovaries
- Caused by bacterial infections
- Ascending infection
Pelvic Inflammatory Disease (PID)

• Causes
  – Gonorrhea and chlamydia, other STD’s

• Effects
  – Abortion, infertility
  – Scarring & fetal septicemia
**Vaginitis**

- Localized infections and inflammations confined to the vagina
  - Viruses, bacteria, yeast
Vaginitis

• Symptoms
  – Genital itching, painful intercourse, foul-smelling discharge, urethritis

• Common causes
  – Candidiasis and trichomoniasis
Sexually Transmitted Disease (STD)

- Also called Venereal Disease
- Contracted through sexual activity with an infected partner
- 20 different STD’s
- Regarded as an epidemic
Sexually Transmitted Disease (STD)

• **Gonorrhea**: a bacteria
  – Effects: mucosal surface of genitourinary tract, rectum and pharynx
  – Asymptomatic, oophoritis, salpingitis, urethritis, dysuria, cystitis
  – Greenish yellow cervical discharge
Sexually Transmitted Disease (STD)

- **Gonorrhea**: a bacteria
Sexually Transmitted Disease (STD)

- **Syphilis**: Bacterial
  - Chronic multiple systemic disease
  - Phases
    - Primary sore
    - Variety of symptoms
    - Latent phase
Sexually Transmitted Disease (STD)

• **Syphilis**: Bacterial
  – Symptoms
    • Blindness, insanity,
    • eventual death
Sexually Transmitted Disease (STD)

• **Chlamydia**: bacterial
  – Most prevalent and damaging
  – Mucopurulent discharge and cervicitis
  – Lead to PID
Sexually Transmitted Disease (STD)

- **Chlamydia**: bacterial
  - Many cases are asymptomatic causing the disease to remain untreated
  - Irreversible damage to the reproductive structures
Sexually Transmitted Disease (STD)

• **Genital Herpes:** Viral
  – Red, blisterlike, painful lesions
  – HSV-2
  – Oral herpes HSV-1
Genital Herpes: Viral
- Fluid in blisters is infectious
- Viral shedding - present on skin
- Can be transmitted to baby – possible death
Sexually Transmitted Disease (STD)

• **Trichomoniasis**: protozoan
  – Vaginitis, urethritis, cystitis
  – Frothy, yellow-green vaginal discharge with strong odor
Sexually Transmitted Disease (STD)

- **Genital Warts:** viral
  - Human papillomavirus (HPV)
  - 100 identified types – 30 spread through sexual contact
Sexually Transmitted Disease (STD)

• **Genital Warts:** viral
  – Linked to 80% of invasive cervical cancer
  – Increases chances of penile, vaginal, cervical, and anal cancer
Cervical Cancer

• Cancer of the cervix
  – Women between 40-49
  – Influences:
    • First coitus as a young age, large # of sex partners, infection with STD’s, frequent intercourse with men whose previous partners had cervical cancer
Cervical Cancer

• Cancer of the cervix
  – Pap test- cytological examination – detect abnormal cells sloughed from the cervix and vagina
Colposcopy

- Visual examination of the vagina and cervix with an optical magnifying instrument (colposcope)
Gynecology

• Branch of medicine concerned with diseases of the female reproductive organs and the breast
Laparoscopy

- Visual examination of the abdominal cavity with a laparoscope through one or more small incisions in the abdominal wall
Papanicolau (Pap) test

- Cytological study used to detect abnormal cells sloughed from the cervix and vagina
Lactation

- Production and release of milk by mammary glands
Mammography

• Radiographic examination of the breast to screen for breast cancer
Lumpectomy

- Excision of a small primary breast tumor and some of the normal tissue that surrounds it
Mammoplasty

• Surgical reconstruction of the breast(s) to change the size, shape, or position
  – Augmentation – enlargement
  – Reduction – decreasing size
Mastectomy

- Excision of the entire breast
Transverse Rectus Abdominis Muscle (TRAM) Flap

- Surgical creation of a breast using skin and fat from the lower half of the abdomen
Female Reproductive Disorders

• Caused by
  – Infection
  – Injury
  – Hormonal dysfunction
Menopause

• Cessation of ovarian activity
• Diminished hormone production
• Occurs around age 50
• Diagnosed after amenorrhea persisting for 1 year
Effects of Menopause

- Vaginal Atrophy: vaginal drying and thinning
- Hot flashes
- Hormone Replacement Therapy (HRT): Treat menopause symptoms
Endometriosis

- Presence of functional endometrial tissue in areas outside the uterus
  - Implants, lesions, growths
  - Pelvic area or abdominopelvic cavity
  - Responds to
    - hormone fluctuations
Endometrial Biopsy

• Removal of a sample of uterine endometrium for microscopic study
Medical Word Parts

- Lact/o
- Gynec/o
Guest Speaker Bonus

- Mittleshmirts
  - German word, means pain from ovulation