Pregnancy and Prenatal Development
Pregnancy Symptoms and Discomforts

- Monthly period stops
- Possible sweating due to higher body temperature
- Frequent urination or leaking
- Gain of 20-30 pounds
- Hair may become thick and healthy
- Breasts become larger and may be tender
- Appetite increases
- Possible stretch marks on stomach
- Possible varicose veins
- Increased fatigue
- Lower back pain
- Trouble sleeping
- Possible swelling feet and hands
- Nausea
Fetal Development Stages

- **Zygote Stage** – Lasts 2 weeks
  - Sperm unites with ovum (egg)

- **Embryo Stage** – Lasts 6 weeks
  - All major body systems begin to develop:
    - Central nervous system, brain, blood vessels, stomach, heart
    - Eyes, lungs arms legs, hands, feet

- **Fetus Stage** – Lasts 7 months
  - Fetus grows and matures
  - Rapid growth of body, head, arms, legs
  - Organs develop for breathing, digestions, blood circulation
  - Nerves and muscles develop
  - Heart pumps blood through veins and arteries
2nd Month- Embryo (1st Trimester)

- Photo taken after surgery for an ectopic pregnancy – shows development of baby at only 6 weeks after conception
- Major organs have begun to form
- Hair follicles and nipples form, knees and elbows visible
- Eyes have retina and lens
- Major muscle system is developed
- End of 2nd month (8 weeks) begins the fetal stage of development

Photograph by University of Minnesota Medical Photographer, Robert Wolfe. 1972
3rd Month – Fetus (1st Trimester)

- Nostrils, mouth, lips, teeth buds, and eyelids form
- Fingers and toes almost complete
- Heartbeat can be heard with a stethoscope
- All organs are present though immature
- Red blood cells are produced in the liver
4th Month – Fetus (2nd Trimester)

- Skin is slightly less transparent
- Fine hair covers entire body
- Fetus can such thumb, swallow, hiccup, move around
- Facial features become clearer
- Brain fully developed
- Bones becoming harder
- Gender is evident, testosterone is produced in male testes
- Can feel pain
5th Month – Fetus (2nd Trimester)

- Hair, eyelashes, eyebrows appear
- Teeth continue to develop
- Organs are maturing
- Hands able to grip
- Fetus becomes more active
- “Quickening” begins (mother feels fetus moving)
6th Month – Fetus (2nd Trimester)

- Eyes open and close
- Muscles in arms and legs strengthen
- Fat deposits begin to appear beneath wrinkly skin
- Breath movement begins
- Has hand and startle reflex
- Footprints and fingerprints are forming
7th Month – Fetus (3rd Trimester)

- Fetus is covered with downy hair called lanugo
- Nervous, circulatory, and other systems mature
- Protective waxy substance (vernix) covers skin
- Periods of fetal activities are followed by periods of rest and quiet
8th Month – Fetus (3rd Trimester)

- Fetus hears sounds and may be startled by sudden noise
- Fetus usually moves into a head-down position
9th Month – Fetus (3rd Trimester)

- Increase of fat under skin makes fetus look less wrinkled
- Fetal movement decreases with less room to move
- Fetus gains disease-fighting antibodies from mother’s blood
- Fetus descends lower into pelvis, ready for birth

http://www.youtube.com/watch?v=jvanNDQhYI
Things to Avoid During Pregnancy

- Smoking
- Alcohol
- Hair Products – permanents, hair color
- Lead
- Work-related hazards
- Paint
- Household cleansers
- Caffeine
- Medications
- Undercooked meat (Toxoplasmosis)
- Contact with cat feces (Toxoplasmosis)
Heredity and Genetic Diseases

- Heredity: Transfer of traits from parent to child
- Gene: A heredity unit that determines a particular physical or mental trait
- Genetic diseases: Occurs when certain genes are abnormal, causing disease or disabilities
- More than 200 genetic disorders
Two Examples of Common Genetic Diseases

• Down Syndrome
  – Extra chromosome present in all or some cells
  – Most commonly occurring genetic disease
  – Up to 50% have congenital heart defects

• Neuromuscular diseases
  – Most common are muscular dystrophy and Amyotrophic Lateral Sclerosis (ALS)
  – Some signs appear at birth, others later
Pregnancy Complications

• Preeclampsia/Toxemia
  – A type of high blood pressure
  – Checked for every doctor visit

• Gestational diabetes
  – Typically disappears after delivery
  – Diagnosed by routine glucose screening test during 6\textsuperscript{th} or 7\textsuperscript{th} month

• Post-partum depression
End Notes

• Resources:
  – Wpclinic.org
  – YouTube