Developmental Growth Patterns (p. 90)

- Cephalocaudal: From the top down
- Proximodistal: From the middle outward

Body weight changes after birth: babies lose 5-7% of their body weight shortly after birth. Then they grow QUICKLY! @ 2yrs.: 1/5 of adult weight and almost 1/2 of adult height (p. 91)

neurotransmitters: enables communication in neural synapses; chemical substances released in the brain (p. 100)

hormones: powerful chemicals secreted by the endocrine glands and carried in the bloodstream (p. 93)

puberty: scientists are attempting to identify specific genes linked to pubertal development - but many environmental factors influence developmental timing - weight, nutrition, health, stress, etc... (p. 92-92) (coming earlier/menopause later)

physical decline in older age: increased weight, decreased height, wrinkles, age spots, grey hair, loss of muscle/bone/strength, lungs = less elastic, increased cholesterol, thickening of arteries, metabolic problems, menopause (p. 98)

Brain structures and what each area controls/development of different areas: draw a picture, make a model - whatever will help you to remember the areas of the brain and their function. Also - prefrontal cortex - not developed until 25+ years old. Controls reasoning/decision-making/self-control. The amygdala controls emotions such as anger and develops earlier. (p. 99-100)

Blooming and Pruning: “Use it or lose it” Connections that are used strengthen and survive & unused ones find a new path or disappear. (p. 102)

Sisters of Notre Dame - Alzheimer’s Research (p. 108)

infant sleep patterns: newborns sleep 16-17 hours/day; by 6 months, more like adult pattern of sleep @ night/awake during the day. Nighttime waking is most common problem. (p. 109)

SIDS: highest cause of infant death in the US. Approx. 3000/year. Highest risk @ 2-4 months old. “Back to sleep” also, note risk factors p. 111

teens/adults and sleep patterns: Sleep debt - Edina School District...
life expectancy (p. 114-115) 120-125 years old
Ave. US = 77.9 years
Japan = 82 years
AA in US = 73.6
Women = 80.4
Males = 75.4

Theories of aging
- cellular clock - cells divide only 75-80 times (telomerase can help) Telomerase inhibitors may inhibit the dividing/reproducing cancer cells (p. 117)
- free radical - cells metabolize - energy = unstable Oxygen molecules ricocheting around. (p. 118)
- mitochondrial - due to decay of mitochondria (p. 118)
- hormonal stress - depressed resistance to stress & illness as you age (p. 118)

leading cause of death in children/adults in the US
Children: Accidents 75+ years: Cardiovascular
Middle Aged Adults: Cancer (p. 125)

chronic vs. acute disorders
Chronic: Slow onset/long duration
Acute: Sudden/severe

childhood & adult obesity Serious health problem - BMI - eating disorders (starts on p. 134)

drug use (p. 145) Statistics & teens - big problem with older adults - “invisible epidemic” and increased issues with prescription medications

exercise (starts p. 140)

infant reflexes (p. 154) Moro Reflex; rooting

gross and fine motor skills (p. 155; p. 160)
large muscle activities vs. small muscle activities

sensation & perception (p. 163)
Sensation - activation of sensory receptors (“I smell something.”)
Perception - interpretation of information (“I smell BACON!”)
eye conditions (starts on page 167)
  glaucoma
  macular degeneration
  cataracts
  dark adaption
  depth perception
  presbyopia

intermodal perception - integrating information from 2 or more sensory modalities - most perception is intermodal.

hearing/otitis media