Perinatology
Diagnostic Assessment

Amniocentesis
- Removal of amniotic fluid with needle extraction
- Analyze fluid
- Spectrophotometric studies - used to diagnosis Rh incompatibility
- Sex chromatin patterns - dx sex linked diseases
- Cell cultures - errors of metabolism

Ultrasoundography
- Sex identification
- Structural abnormalities
- Size re: gestation
- Presentation

Rh Factors
- Rh factors - molecules present on plasma membrane of red blood cells
- Promote immune response
- Present in most but not all people
- Rh+ - blood cells carry Rh factor
- Rh- -blood cells lack Rh factor

Rh incompatibility
- Mom/child have difference in presence of Rh factor
- I.e., Rh- Mom, Rh+ fetus
- First time around, usually no problem (antibodies formed in mom)
- Second time, antibodies in Mom provoke strong immune response in fetus
- Result = anemia in fetus and newborn
- Condition = erythroblastosis fetalis

Erythroblastosis fetalis
- Destruction of red blood cells
- Breakdown products of these cells = bilirubin
- Substance deposited in brain
- Cerebral damage or death

Rx
- Transfusions of Rh- blood to fetus in utero
- Transfusion to newborn
- Preventive - administration of anti-Rh antibodies to Mom immediately after birth of each Rh+ baby

Postnatal Growth and Development

Head
Year One - marked growth of cranium
2 years, brain and cranium tripled in volume
10 years, cranium achieved 90% of growth
after 1st year, facial skeleton grows faster than cranium

10  📕 Mandible
  growth influences whole facial form
  growth at condylar cartilages
  differences in growth directions
  most - growth in height of ramus - lowers

11  📕 Upper face
  most rapid, first three years
  grows at suture sites of facial bones
  maxilla lowered and forward
  5th year - palate 5/6ths of final size
  mature palate - 10 years

12  📕 Soft Palate
  length increases to 2 years
  average length = 27.13 mm
  in infant, same plane as hp
  in adult, parallel with posterior pharyngeal wall

13  📕 Nose
  nasal septum grows downward and forward
  growth occurs at suture sites
  growth ends in adulthood

14  📕 Significance
  important to management procedures
  surgery affects growth patterns
  anticipate relationship between structures