

Learning Guide: Growth and Development

Study Guidance: Students should understand basic cell division and reproduction, and the hereditary and environmental factors (e.g., tobacco smoke, lead exposure) that may affect the fetus, infant and child. Students should have a concept of growth and development as a continuous process at the macro and cellular level from conception to death. Students should be familiar with the basic concepts of development and growth in infancy, childhood, adolescence and adulthood. Students should be vaguely aware of growth and development as being influenced by many factors including those that are ecological, evolutionary, and environmental.

Be able to discuss the following:

Mitosis versus Meiosis

Growth and development factors in the prenatal period of life

Assisted reproduction (egg and sperm donation, in vitro fertilization)

Birth defects, varying risk factors (e.g., genetics, environmental) and prevention

Development as a biological process

Influence of environmental factors, chemical and physical factors on growth and development

Biological and molecular components of life long development

Be able to define, identify, and differentiate the terms found in the lectures and the glossary with respect to cardiovascular diseases. Here are just some examples.

Cystic Fibrosis

Sickle Cell Anemia

Tay Sachs

Hemophilia

In-Vitro Fertilization

Fetus

Conception

Prenatal

Genetic Disorder

Prematurity

Infancy

Childhood

Genetic Traits

Somatic Cell

Translation

Transcription

Codon

Fertilization

Spina Bifida

Rubella

Syphilis

Diabetes Mellitus

New Ballard Scale

Apgar Scores

Failure to Thrive

Required Readings: None

Additional Readings and Information Used for Lectures and Glossary

1) Growth and Development Through the Lifespan: by Kathleen M Thies
Chapter 11, 12, 13, 17, 25, 26, 44 (Chapters are only 2-4 pages long)

- 2) http://www.collegeboard.com/student/testing/clep/ex_hgd.html
- 3) <http://www.ext.vt.edu/pubs/family/350-053/350-053.html>
- 4) <http://www.cdh.org/HealthInformation.aspx?pageId=P02217>: Central Dupag Hospital
- 5) <http://faculty.tcc.fl.edu/hss/mcguffr/Glossary%20of%20Key%20Terms%20in%20Human%20Development.doc>: Unknown Developer
- 6) <http://www.magicfoundation.org/www/docs/12.801/>: Magic Foundation
- 7) http://www.ucmp.berkeley.edu/glossary/glossary_4.html: UCMP glossary