

Late Adulthood and Disease

OBJECTIVE / RATIONALE

The physiological and physical changes due to aging increase susceptibility to disease. The student will analyze the relationship between aging and disease.

TEKS 121.15 4D, 6D, 7B

TAKS ELA 1, 4
Social Studies 5
Science 1, 2

National Science Education Standards A9-12; C9-12; F9-12; G9-12
National Health Care Skills Standards .01, .07

KEY POINTS

I. Physical Changes of Aging

A. Integumentary System

1. Decreased glandular activity
2. Dryness, thinning, scaling
3. Loss of fat and elasticity
4. Loss of hair and color

B. Respiratory System

1. Decreased lung elasticity
2. Decreased expansion of the rib cage
3. Decreased functioning of respiratory muscles

C. Circulatory System

1. Decrease in blood flow
2. Decreased arterial elasticity and narrowing of arteries
3. Decrease in pulse and increase in Blood Pressure
4. Decrease in cardiac output

D. Musculoskeletal System

1. Loss of calcium in the bones and bones are more brittle
2. Loss of muscle strength, size, and tone
3. Postural changes
4. Decreased joint flexibility

E. Endocrine System

1. Decreased glandular activity

F. Nervous System

1. Changes in number of nerve cells and in brain mass
2. Increase in reaction time
3. Changes in memory
4. Decreased sensitivity of receptors

G. Digestive System

1. Difficulty chewing - due to loss of teeth
 2. Decreased functioning capacity of the liver
 3. Constipation
 4. Slower digestion
- H. Urinary System
1. Bladder holds less urine
 2. Incontinence
- J. Reproductive System
1. Decreased sperm production
 2. Menopausal state
- K. Immune System
1. Decreased immunity
- II. Diseases Commonly Associated with Late Adulthood
- A. Skin Lesions - Bed Sores - Decubitus ulcers
 - B. Upper Respiratory Infection
 - C. COPD
 - D. Blood Vessel Disorders
 - E. Heart Disease
 - F. Arthritis
 - G. Stroke
 - H. Aphasia
 - I. Parkinson's Disease
 - J. Alzheimer's
 - K. Deafness
 - L. Cataracts
 - M. Osteoporosis

ACTIVITIES

- I. Research a case study relating to the aging process. Create and present a multimedia presentation.
- II. Pick an organ system and describe the effect aging has on that system and include diseases that affect that system.

MATERIALS / RESOURCES

www.swmed.edu/stars
Population Reference Bureau - Washington DC
World Health Organization
American Enterprise Institute – Washington DC

ASSESSMENT

Multimedia Rubric

ACCOMMODATIONS

For reinforcement, the student will interview a person in their 90's to determine the physical and physiological changes that have occurred since age 50.

For enrichment, the student will research and report on why the United States is falling behind in life health expectancy.

REFLECTIONS
