

Aging Study Questions

Dr. J. Lim

1. The shortening of chromosomal _____ is thought to be the cause of aging based upon the _____ hypothesis.
2. _____ are the oxidative agents thought to be the trouble makers that cause aging by damaging chromosomes in the “cumulative assaults” hypothesis.
3. Substance that stabilize free radicals by giving up or receiving electrons is called a(n) _____.
4. A major cause of wrinkling in aging skin is the loss of _____.
5. A major cause of decreased skin elasticity is the replacement of _____ fibers with more rigid _____ fibers in the dermal connective tissue.
6. Atrophy of aging skeletal muscles is due to a decrease in muscle fiber _____.
7. _____ is bones become more porous as a result of bone resorption exceeding bone production for an extended period.
8. The breakdown of intervertebral discs makes a person _____.
9. Over time, cardiac muscle weakens due to _____ and blood vessels harden/stiffen due to the loss of _____ fibers.
10. An aging respiratory system exhibits loss of _____ and _____.
11. Brain size decreases with age. T/F
12. The ovaries of post-menopausal females no longer produce the hormones _____ and _____.
13. The ovaries of post-menopausal females are no longer responsive to stimulation from the anterior pituitary hormones _____ and _____.
14. Though reproductive capacity drops in aging males, fertility may remain until death. T/F
15. Flu shots are recommended for the elderly because their ability to fight off infection is _____.
16. Elderly people burn _____ calories at rest than a teenager.
17. With advancing age, the expected loss of some kidney nephrons is compensated for by _____.
18. This compensation by of aging nephrons by surplus nephrons in the kidneys is similar to the compensation by aging neurons by surplus neurons in the brain. T/F
19. List some ways to diminish the physical effects of advanced age

Aging Study Questions KEY

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1. The shortening of chromosomal **telomeres** is thought to be the cause of aging based upon the “**programmed life**” hypothesis.
2. **Free radicals** are the oxidative agents thought to be the trouble-makers that causes aging by damaging chromosomes in the “**cumulative assaults**” hypothesis.
3. Substances that stabilize free radicals by giving up or receiving electrons are called a(n) **antioxidants**.
4. A major cause of wrinkling in aging skin is the loss of **subcutaneous fat**.
5. A major cause of decreased skin elasticity is the replacement of **elastin** fibers with more rigid **collagen** fibers in the dermal connective tissue.
6. Atrophy of aging skeletal muscles is due to a decrease in muscle fiber (cell) **size**.
7. **Osteoporosis** is bones become more porous as a result of bone resorption exceeding bone production for an extended period.
8. The breakdown of intervertebral discs makes a person **shorter**.
9. Over time, cardiac muscle weakens due to **atrophy** and blood vessels harden/stiffen due to the loss of **elastic** fibers.
10. An aging respiratory system exhibits loss of **elasticity** and **surface area**.
11. Brain size decreases with age. **True**
12. The ovaries of post-menopausal females no longer produce the hormones **estrogen and progesterone**.
13. The ovaries of post-menopausal females are no longer responsive to stimulation from the anterior pituitary hormones **FSH** and **LH**.
14. Though reproductive capacity drops in aging males, fertility may remain until death. **True**
15. Flu shots are recommended for the elderly because their ability to fight off infection is **reduced**.
16. Elderly people burn **fewer** calories at rest than a teenager does.
17. With advancing age, the expected loss of some kidney nephrons is compensated for by **surplus neurons**.
18. This compensation of aging nephrons by surplus nephrons in the kidneys is similar to the compensation of aging neurons by surplus neurons in the brain. **True**
19. List some ways to diminish the physical effects of advanced age
regular moderate exercise; low fat-high fiber diet; omega-3 FA, antioxidants, healthy habits, etc