

OMB # 0925-XXXX

Expiration Date: XX/XXXX

ENDOCRINOLOGY KNOWLEDGE CHECK

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1. Global prevalence of Type 2 diabetes is ____ in men than women before age 69 and ____ in men than women afterwards.
 - a. Lower; Lower
 - b. Lower; Higher
 - c. Higher; Higher
 - d. Higher; Lower**

The correct answer is D. Men exhibited a slightly higher prevalence of diabetes than women before age 60. At older ages, the prevalence of diabetes was slightly higher in women than men.

2. As they age, men are ____ likely to experience dramatic declines in sex hormones compared to women, resulting in _____ bone loss.
 - a. More; slower
 - b. Less; slower**
 - c. More; faster
 - d. Less; faster

The correct answer is B. Men are less likely to experience dramatic declines in sex hormones compared to women. This results in slower rates of bone loss.

3. Well-Differentiated Thyroid Cancer is the only non-reproductive cancer with _____ predominance, exhibiting a _____ female:male ratio.
 - a. Female; 2:1
 - b. Male; 1:2
 - c. Female; 3:1**
 - d. Male; 1:3

The correct answer is C. Well-Differentiated Thyroid Cancer is the only non-reproductive cancer with female predominance, exhibiting a 3:1 female:male ratio.

4. In adult ovariectomized mice, estrogen replacement with 17- β estradiol attenuates bone loss.
 - a. True**
 - b. False

The correct answer is A. Estrogen replacement with 17- β estradiol attenuates bone loss in adult ovariectomized mice.

5. Preclinical studies clearly show that androgens (testosterone) increase the risk of diabetes.
 - a. True**
 - b. False

The correct answer is A. While some preclinical studies show a protective role for androgens against diabetes, others show testosterone supplementation may be harmful.

6. The Women's Health Initiative at the NIH included a randomized trial with over 15,000 non-diabetic, postmenopausal women given either combination hormone therapy or placebo. That study found:
 - a. Participants in the treatment arm had a lower cumulative incidence of self-reported diabetes.
 - b. Participants in the treatment arm had a higher cumulative incidence of self-reported diabetes.

- c. Participants in the treatment arm had improved metabolic profiles compared to baseline.
- d. All of the above
- e. A and C only**

The correct answer is E. Participants in the treatment arm had a lower cumulative incidence of self-reported diabetes and improved metabolic profiles compared to baseline.

7. After a hip fracture, men exhibit a _____ mortality risk than women of comparable age, a difference that persists for at least _____ years post-fracture.
- a. Higher; 7 years
 - b. Higher; 5 years**
 - c. Lower; 7 years
 - d. Lower; 5 years

The correct answer is B. Men exhibit higher mortality risk than women of comparable age, and the difference persists for at least 5 years post-fracture.

8. Estrogen has been shown to have what effect on thyroid cells in vitro?
- a. Estradiol exposure increases proliferation in cultures of primary (normal) thyroid cells.**
 - b. Estradiol causes loss of thyroid hormone production.
 - c. Estradiol causes mutations and uncontrolled growth.
 - d. All of the above
 - e. A & B only

The correct answer is A. Estradiol exposure increases proliferation in cultures of primary (normal) thyroid cells.

9. Studies have indicated a net decrease in bone density of 1-4% during pregnancy and lactation, but bone density typically recovers by _____ post-weaning.
- a. 3 months
 - b. 6 months
 - c. 9 months

d. 12 months

The correct answer is D. Bone density typically recovers by 12 months post-weaning.

10. Although Well-Differentiated Thyroid Cancer is more prevalent in women, men with Well-Differentiated Thyroid Cancer exhibit higher mortality rates.

a. True

b. False

The correct answer is A. Although Well-Differentiated Thyroid Cancer is more prevalent in women, men with Well-Differentiated Thyroid Cancer exhibit higher mortality rates.