True / False

1. The subfertility of one partner can be overcome by the reproductive capacity in the other partner.

a. True
b. False

ANSWER: True
REFERENCES: Preconception Overview
LEARNING OBJECTIVES: NTLC.BRWN.17.2.1 - Cite three examples of the Healthy People 2020 nutrition-related objectives for the preconception period.
KEYWORDS: Understand

2. Weight gain is the recommended first-line treatment for amenorrhea related to low body weight.

a. True
b. False

ANSWER: True
REFERENCES: Reproductive Physiology
LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.
KEYWORDS: Understand

3. Regular intake of soy foods such as tofu, soymilk, tempeh, and textured soy protein is related to elevated sperm count in men and increased fertility in women.

a. True
b. False

ANSWER: False
REFERENCES: Nutrition and Fertility
LEARNING OBJECTIVES: NTLC.BRWN.17.2.3 - Describe the potential effects of nutrition-related factors such as body fat content, iron status, and alcohol intake on fertility in females and males.
KEYWORDS: Understand

4. Obese women tend to have higher levels of estrogen, androgens, and leptin than nonobese women.

a. True
b. False

ANSWER: True
REFERENCES: Nutrition and Fertility
LEARNING OBJECTIVES: NTLC.BRWN.17.2.3 - Describe the potential effects of nutrition-related factors such as body fat content, iron status, and alcohol intake on fertility in females and males.
KEYWORDS: Understand

5. Women trying to get pregnant should avoid all sources of caffeine.

a. True
b. False

ANSWER: False
REFERENCES: Nutrition and Fertility
LEARNING OBJECTIVES: NTLC.BRWN.17.2.3 - Describe the potential effects of nutrition-related factors such as body fat content, iron status, and alcohol intake on fertility in females and males.

KEYWORDS: Understand

6. Alcohol intake has been found to reduce fertility only in women with a specific gene variant that reduces the rate of alcohol breakdown in the body.

a. True
b. False

ANSWER: True
REFERENCES: Nutrition and Fertility
LEARNING OBJECTIVES: NTLC.BRWN.17.2.3 - Describe the potential effects of nutrition-related factors such as body fat content, iron status, and alcohol intake on fertility in females and males.
KEYWORDS: Understand

7. It is easier and more efficient to build up iron stores before pregnancy than during pregnancy.

a. True
b. False

ANSWER: True
REFERENCES: Nutrition During the Periconceptional Period
LEARNING OBJECTIVES: NTLC.BRWN.17.2.4 - Cite four examples of relationships between nutrient intake and nutritional status during the periconceptional period and the outcome of pregnancy.
KEYWORDS: Understand

8. It is preferable to meet nutrient requirements through dietary supplements rather than foods.

a. True
b. False

ANSWER: False
REFERENCES: Recommended Dietary Intake and Healthy Dietary Patterns for Preconceptional Women
LEARNING OBJECTIVES: NTLC.BRWN.17.2.5 - Develop a one-day menu for a preconceptional woman and a man based on the ChooseMyPlate.gov food guidance materials.
KEYWORDS: Understand

9. Fertility has been known to return immediately upon cessation of contraceptive use.

a. True
b. False

ANSWER: False
REFERENCES: Influence of Contraceptives on Preconceptional Nutrition Status
LEARNING OBJECTIVES: NTLC.BRWN.17.2.6 - Identify three nutrition-related consequences that may be related to the use of combination hormonal contraceptives, and a consequence that is related to the use of estrogen or progestin contraceptives only.
KEYWORDS: Remember

10. In Indonesia, a couple Bloom's Applying for a marriage license are required to receive advice on iron status from those dispensing the license.

a. True
b. False

ANSWER: True
REFERENCES: Model Preconceptional Health and Nutrition Programs

LEARNING OBJECTIVES: NTLC.BRWN.17.2.7 - Cite three important nutrition-related components of preconceptional health care.
KEYWORDS: Remember

11. The desire of couples planning for pregnancy to have a healthy newborn means that the preconceptional period is too stressful a time for psychosocial services.

a. True
b. False

ANSWER: False
REFERENCES: Model Preconceptional Health and Nutrition Programs
LEARNING OBJECTIVES: NTLC.BRWN.17.2.7 - Cite three important nutrition-related components of preconceptional health care.
KEYWORDS: Remember

Multiple Choice

12. Fertility refers to the _____.

a. biological capacity to bear children
b. desire to bear children
c. actual production of children
d. number of births per 1000 miscarriages
e. number of births per 1000 women of childbearing age

ANSWER: c
REFERENCES: Preconception Overview
LEARNING OBJECTIVES: NTLC.BRWN.17.2.1 - Cite three examples of the Healthy People 2020 nutrition-related objectives for the preconception period.
KEYWORDS: Remember

13. Infertility is generally defined as the lack of conception after _____ of unprotected intercourse.

a. 3 months
b. 6 months
c. 9 months
d. 1 year
e. 1.5 year

ANSWER: d
REFERENCES: Preconception Overview
LEARNING OBJECTIVES: NTLC.BRWN.17.2.1 - Cite three examples of the Healthy People 2020 nutrition-related objectives for the preconception period.
KEYWORDS: Remember

14. Healthy couples having regular, unprotected intercourse have a _____ chance of a diagnosed pregnancy within a given menstrual cycle.

a. 15-20%
b. 20-25%
c. 25-30%
d. 30-50%

e. 50-75%

ANSWER: b

REFERENCES: Preconception Overview

LEARNING OBJECTIVES: NTLC.BRWN.17.2.1 - Cite three examples of the Healthy People 2020 nutrition-related objectives for the preconception period.

KEYWORDS: Remember

15. What is the rate of miscarriage in the first 20 weeks of pregnancy?

a. 6%
b. 7%
c. 8%
d. 9%
e. 15%

ANSWER: d

REFERENCES: Preconception Overview

LEARNING OBJECTIVES: NTLC.BRWN.17.2.1 - Cite three examples of the Healthy People 2020 nutrition-related objectives for the preconception period.

KEYWORDS: Remember

16. The most common cause of miscarriage for women is _____.

a. a structural abnormality in the uterus
b. the presence of a severe defect in the fetus
c. maternal infection
d. an endocrine disorder
e. physical trauma to the mother

ANSWER: b

REFERENCES: Preconception Overview

LEARNING OBJECTIVES: NTLC.BRWN.17.2.1 - Cite three examples of the Healthy People 2020 nutrition-related objectives for the preconception period.

KEYWORDS: Remember

17. The _____ phase of the menstrual cycle occurs after ovulation.

a. follicular
b. luteal
c. estrogen
d. primordial
e. FSH

ANSWER: b

REFERENCES: Reproductive Physiology

LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.

KEYWORDS: Remember

18. The first half of the menstrual cycle is called the _____ phase.

a. follicular

b. luteal
c. estrogen
d. primordial
e. menses

ANSWER: a
REFERENCES: Reproductive Physiology
LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.
KEYWORDS: Remember

19. Ovulation results from a surge in the _____ hormone.
a. estrogen
b. progesterone
c. luteinizing
d. follicle-stimulating
e. gonadotropin-releasing

ANSWER: c
REFERENCES: Reproductive Physiology
LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.
KEYWORDS: Remember

20. The two hormones secreted by the pituitary gland during the follicular phase of a woman's cycle are _____.
a. follicle-stimulating hormone and progesterone
b. progesterone and estrogen
c. follicle-stimulating hormone and luteinizing hormone
d. luteinizing hormone and progesterone
e. luteinizing hormone and estrogen

ANSWER: c
REFERENCES: Reproductive Physiology
LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.
KEYWORDS: Remember

21. The _____ releases _____, stimulating the pituitary gland to release FSH and LH.
a. ovary; estrogen
b. ovary; progesterone
c. uterus; progesterone
d. hypothalamus; estrogen
e. hypothalamus; gonadotropin-releasing hormone

ANSWER: e
REFERENCES: Reproductive Physiology
LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.
KEYWORDS: Understand

22. After ovulation, the corpus luteum secretes _____, which _____.
    a. progesterone and estrogen; stimulates the ovulation of a second egg
    b. progesterone and estrogen; stimulates development of the endometrium
    c. follicle-stimulating hormone and luteinizing hormone; stimulates development of the endometrium
    d. luteinizing hormone and estrogen; facilitates fertilization of the egg
    e. luteinizing hormone and estrogen; stimulates ovulation of a second egg

ANSWER: b
REFERENCES: Reproductive Physiology
LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.
KEYWORDS: Understand

23. A menstrual flow results from _____.
    a. implantation of a fertilized in the endometrium
    b. a drop in progesterone and estrogen levels
    c. the release of gonadotropin-releasing hormone by the hypothalamus
    d. the production of prostaglandins by the uterus
    e. the release of progesterone and estrogen by the corpus luteum

ANSWER: b
REFERENCES: Reproductive Physiology
LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.
KEYWORDS: Understand

24. In a “typical” 28-day cycle, when would levels of luteinizing hormone most likely be the highest?
    a. day 1
    b. day 7
    c. day 10
    d. day 14
    e. day 28

ANSWER: d
REFERENCES: Reproductive Physiology
LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.
KEYWORDS: Apply

25. Cramps and other side effects of menstruation can be traced back to the production of _____ by the uterus.
    a. progesterone
    b. estrogen
    c. prostaglandins
    d. luteinizing hormone
    e. gonadotropin-releasing hormone

ANSWER: c
REFERENCES: Reproductive Physiology

LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.
KEYWORDS: Remember

26. The female gonads are the _____ while the male gonads are the _____.
    a. ovaries; testes
    b. ovaries; epididymis
    c. uterus; testes
    d. uterus; prostate gland
    e. ovaries; prostate gland

ANSWER: a
REFERENCES: Reproductive Physiology
LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.
KEYWORDS: Remember

27. In males, mature sperm are stored in the _____.
    a. testes
    b. urethra
    c. prostate gland
    d. seminal vesicles
    e. epididymis

ANSWER: e
REFERENCES: Reproductive Physiology
LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.
KEYWORDS: Remember

28. Which hormone(s) trigger(s) the production of testosterone by the testes?
    a. follicle-stimulating hormone only
    b. luteinizing hormone only
    c. progesterone only
    d. luteinizing hormone and progesterone
    e. follicle-stimulating hormone and luteinizing hormone

ANSWER: e
REFERENCES: Reproductive Physiology
LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.
KEYWORDS: Remember

29. Semen is composed of _____.
    a. sperm only
    b. sperm and secretions from the bulbourethral gland only
    c. secretions from the bulbourethral gland, prostate, and seminal vesicles only
    d. sperm and secretions from the testes, bulbourethral gland, prostate, and seminal vesicles

e. sperm and secretions from the bulbourethral gland, prostate, and vas deferens

ANSWER: d

REFERENCES: Reproductive Physiology

LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.

KEYWORDS: Remember

30. Endometriosis is defined as _____.

a. scarring and blockage of the fallopian tubes
b. the condition in which endometrial tissue becomes embedded within other body tissues
c. a modification of pregnancy hormones that results in infertility
d. an infection of the cervix
e. the inability to get pregnant

ANSWER: b

REFERENCES: Reproductive Physiology

LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.

KEYWORDS: Remember

31. The leading diagnoses related to infertility are _____.

a. endocrine abnormalities that modify hormonal regulation of fertility
b. unknown causes
c. environmental contaminants such as lead and mercury
d. overweight and obesity in men
e. sexually transmitted diseases

ANSWER: a

REFERENCES: Reproductive Physiology

LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.

KEYWORDS: Remember

32. Which factor would be more likely to affect female fertility than male fertility?

a. inadequate body fat
b. poor iron stores
c. high alcohol intake
d. excessive body fat
e. excessive exercise

ANSWER: b

REFERENCES: Reproductive Physiology

LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.

KEYWORDS: Remember

33. Which factor has been linked to impaired fertility in males but not females?

a. high sperm count

b. oxidative stress
c. severe psychological stress
d. excessive heat to the gonads
e. diabetes

ANSWER: d
REFERENCES: Reproductive Physiology
LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.
KEYWORDS: Remember

34. Which statement related to male and female fertility is true?
a. During a female's fertile years, approximately 1000 ova will mature and be released for possible fertilization.
b. For males, sperm numbers and viability decrease somewhat after age 30.
c. For both males and females, the quality of eggs and sperm decrease somewhat with age.
d. Females are born with mature eggs.
e. Males produce sperm from birth until death.

ANSWER: c
REFERENCES: Reproductive Physiology
LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.
KEYWORDS: Remember

35. Pelvic inflammatory disease (PID) can _____.
a. cause less estrogen to be secreted, thus blocking ovulation
b. lead to scarring and blockage of the fallopian tubes
c. cause sperm to become less viable, when transferred to a male
d. increase the lining of the endometrium
e. decrease zinc absorption

ANSWER: b
REFERENCES: Reproductive Physiology
LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.
KEYWORDS: Understand

36. A body mass index (BMI) greater than _____ kg/m^2 is typically needed to sustain normal reproductive function in women.

a. 17
b. 20
c. 25
d. 30
e. 35

ANSWER: b
REFERENCES: Nutrition and Fertility
LEARNING OBJECTIVES: NTLC.BRWN.17.2.3 - Describe the potential effects of nutrition-related factors such as body fat content, iron status, and alcohol intake on fertility in females and males.

KEYWORDS: Remember

37. An anovulatory cycle is _____.
    a. the absence of a menstrual cycle
    b. a menstrual cycle in which ovulation does not occur
    c. an abnormally short menstrual cycle
    d. an abnormally long menstrual cycle
    e. a menstrual cycle in which more than one egg is ovulated

ANSWER: b
REFERENCES: Nutrition and Fertility
LEARNING OBJECTIVES: NTLC.BRWN.17.2.3 - Describe the potential effects of nutrition-related factors such as body fat content, iron status, and alcohol intake on fertility in females and males.
KEYWORDS: Remember

38. Which dietary component can protect cells of the reproductive system from damage by free radicals?
    a. fiber
    b. calcium
    c. iron
    d. fat
    e. antioxidants

ANSWER: e
REFERENCES: Nutrition and Fertility
LEARNING OBJECTIVES: NTLC.BRWN.17.2.3 - Describe the potential effects of nutrition-related factors such as body fat content, iron status, and alcohol intake on fertility in females and males.
KEYWORDS: Remember

39. Young female athletes often experience a delay in menarche of approximately what duration?
    a. 6 months to 1 year
    b. 1 to 2 years
    c. 2 to 4 years
    d. 5 years
    e. They do not experience a delay in menarche.

ANSWER: c
REFERENCES: Nutrition and Fertility
LEARNING OBJECTIVES: NTLC.BRWN.17.2.3 - Describe the potential effects of nutrition-related factors such as body fat content, iron status, and alcohol intake on fertility in females and males.
KEYWORDS: Remember

40. In men who drink 5-25 alcoholic drinks per week, _____.
    a. total sperm count increases
    b. testosterone levels decrease
    c. sperm concentration increases
    d. the percent of sperm with normal shape decreases
    e. there is no effect on fertility

ANSWER: d

REFERENCES: Nutrition and Fertility
LEARNING OBJECTIVES: NTLC.BRWN.17.2.3 - Describe the potential effects of nutrition-related factors such as body fat content, iron status, and alcohol intake on fertility in females and males.
KEYWORDS: Understand

41. The fertilized egg is called an embryo from _____.
    a. conception until birth
    b. conception through 8 weeks
    c. conception through 4 months
    d. 8 weeks until birth
    e. 9 months until birth

ANSWER: b
REFERENCES: Nutrition During the Periconceptional Period
LEARNING OBJECTIVES: NTLC.BRWN.17.2.4 - Cite four examples of relationships between nutrient intake and nutritional status during the periconceptional period and the outcome of pregnancy.
KEYWORDS: Remember

42. The development of facial and heart defects in the fetus has been linked to _____ in the mother.
    a. excessive vitamin A intake
    b. iron deficiency
    c. high blood levels of lead
    d. obesity
    e. folate deficiency

ANSWER: a
REFERENCES: Nutrition During the Periconceptional Period
LEARNING OBJECTIVES: NTLC.BRWN.17.2.4 - Cite four examples of relationships between nutrient intake and nutritional status during the periconceptional period and the outcome of pregnancy.
KEYWORDS: Remember

43. DNA methylation _____.
    a. modifies gene function in the fetus during late pregnancy
    b. activates gene expression
    c. is an abnormal part of development
    d. is needed for cellular differentiation
    e. is unaffected by nutritional intake

ANSWER: d
REFERENCES: Nutrition During the Periconceptional Period
LEARNING OBJECTIVES: NTLC.BRWN.17.2.4 - Cite four examples of relationships between nutrient intake and nutritional status during the periconceptional period and the outcome of pregnancy.
KEYWORDS: Remember

44. Spina bifida is an example of a _____.
    a. neural tube defect
    b. DNA modification
    c. gene variant

d. nutritional deficiency
e. metabolic programming mechanism

ANSWER: a
REFERENCES: Nutrition During the Periconceptional Period
LEARNING OBJECTIVES: NTLC.BRWN.17.2.4 - Cite four examples of relationships between nutrient intake and nutritional status during the periconceptional period and the outcome of pregnancy.
KEYWORDS: Remember

45. The risk of early delivery is increased by _____.
a. excessive vitamin A intake
b. iron deficiency
c. iodine deficiency
d. high maternal blood levels of lead
e. diabetes

ANSWER: b
REFERENCES: Nutrition During the Periconceptional Period
LEARNING OBJECTIVES: NTLC.BRWN.17.2.4 - Cite four examples of relationships between nutrient intake and nutritional status during the periconceptional period and the outcome of pregnancy.
KEYWORDS: Remember

46. Refined grain products are often fortified with _____ to decrease rates of _____.
a. folic acid; neural tube defects
b. iron; neural tube defects
c. iodine; early delivery
d. folic acid; early delivery
e. vitamin A; fetal heart abnormalities

ANSWER: a
REFERENCES: Nutrition During the Periconceptional Period
LEARNING OBJECTIVES: NTLC.BRWN.17.2.4 - Cite four examples of relationships between nutrient intake and nutritional status during the periconceptional period and the outcome of pregnancy.
KEYWORDS: Understand

47. What nutritional and health advice would a doctor likely give to a preconceptional couple?
a. The woman's physical activity should be limited to less than 30 minutes per day.
b. For vegetable intake, both should eat mostly dark green vegetables.
c. At least half of the woman's grain intake should be refined grains.
d. The woman's vitamin should take at least 10,000 IU of vitamin A per day.
e. The woman should consume 400 mcg of folic acid in addition to dietary folate.

ANSWER: e
REFERENCES: Recommended Dietary Intake and Healthy Dietary Patterns for Preconceptional Women
LEARNING OBJECTIVES: NTLC.BRWN.17.2.5 - Develop a one-day menu for a preconceptional woman and a man based on the ChooseMyPlate.gov food guidance materials.
KEYWORDS: Apply

48. Contraceptives may contain _____.

a. estradiol only
b. luteinizing hormone only
c. estradiol only or progestin only
d. progestin only or a combination of estradiol and progestin
e. a combination of luteinizing hormone and progestin

ANSWER: d
REFERENCES: Influence of Contraceptives on Preconceptional Nutrition Status
LEARNING OBJECTIVES: NTLC.BRWN.17.2.6 - Identify three nutrition-related consequences that may be related to the use of combination hormonal contraceptives, and a consequence that is related to the use of estrogen or progestin contraceptives only.
KEYWORDS: Remember

49. Combination hormonal contraceptives are least likely to be associated with _____.

a. weight gain
b. decreased blood levels of HDL cholesterol
c. increased risk of blood clots
d. increased levels of triglycerides and LDL cholesterol
e. increased blood glucose and insulin

ANSWER: a
REFERENCES: Influence of Contraceptives on Preconceptional Nutrition Status
LEARNING OBJECTIVES: NTLC.BRWN.17.2.6 - Identify three nutrition-related consequences that may be related to the use of combination hormonal contraceptives, and a consequence that is related to the use of estrogen or progestin contraceptives only.
KEYWORDS: Remember

50. A woman would likely be advised to switch from a progestin-only hormonal contraceptive to a combination hormonal contraceptive due to _____.

a. weight gain
b. irritability
c. fatigue
d. headache
e. abdominal pain

ANSWER: a
REFERENCES: Influence of Contraceptives on Preconceptional Nutrition Status
LEARNING OBJECTIVES: NTLC.BRWN.17.2.6 - Identify three nutrition-related consequences that may be related to the use of combination hormonal contraceptives, and a consequence that is related to the use of estrogen or progestin contraceptives only.
KEYWORDS: Understand

51. Fertility usually resumes within _____ after contraceptive use stops.

a. 3 to 6 weeks
b. 3 to 6 months
c. 3 to 6 days
d. 6 to 10 weeks
e. 6 to 10 months

ANSWER: b

REFERENCES: Influence of Contraceptives on Preconceptional Nutrition Status

LEARNING OBJECTIVES: NTLC.BRWN.17.2.6 - Identify three nutrition-related consequences that may be related to the use of combination hormonal contraceptives, and a consequence that is related to the use of estrogen or progestin contraceptives only.

KEYWORDS: Remember

52. Women taking oral contraceptive pills are cautioned against _____.

a. consuming large amounts of animal products
b. consuming too many carbohydrates
c. eating more than $^{1}/_{2}$ cup of peanut butter weekly
d. smoking
e. ingesting too much vitamin A

ANSWER: d

REFERENCES: Influence of Contraceptives on Preconceptional Nutrition Status

LEARNING OBJECTIVES: NTLC.BRWN.17.2.6 - Identify three nutrition-related consequences that may be related to the use of combination hormonal contraceptives, and a consequence that is related to the use of estrogen or progestin contraceptives only.

KEYWORDS: Remember

53. Among the hormonal contraceptives being developed for men are those containing _____ as a means of _____.

a. estradiol; inhibiting release of sperm into the semen
b. luteinizing hormone; reducing sperm production
c. testosterone; reducing sperm production
d. luteinizing hormone; inhibiting release of sperm into the semen
e. testosterone; inhibiting ejaculation

ANSWER: c

REFERENCES: Influence of Contraceptives on Preconceptional Nutrition Status

LEARNING OBJECTIVES: NTLC.BRWN.17.2.6 - Identify three nutrition-related consequences that may be related to the use of combination hormonal contraceptives, and a consequence that is related to the use of estrogen or progestin contraceptives only.

KEYWORDS: Understand

54. In a study done in California, women who received WIC benefits from one pregnancy through the first two months of their second pregnancy had _____ than women who only received WIC services during their first pregnancy.

a. better iron status
b. lower zinc levels
c. newborns with lower birth weights
d. newborns with lower birth lengths
e. higher blood glucose levels

ANSWER: a

REFERENCES: Model Preconceptional Health and Nutrition Programs

LEARNING OBJECTIVES: NTLC.BRWN.17.2.7 - Cite three important nutrition-related components of preconceptional health care.

KEYWORDS: Understand

55. A potential future target audience of the WIC program is low-income _____.

a. postpartum women
b. pregnant women
c. children
d. breastfeeding women
e. preconceptional women

ANSWER: a
REFERENCES: Model Preconceptional Health and Nutrition Programs
LEARNING OBJECTIVES: NTLC.BRWN.17.2.7 - Cite three important nutrition-related components of preconceptional health care.
KEYWORDS: Understand

56. Which American Institute released a report in 2006, highlighting recommendations for improving preconception health and health care services?

a. Food and Drug Administration
b. US Department of Agriculture
c. Centers for Disease Control and Prevention
d. National Institutes of Health
e. National Academy of Nutrition and Dietetics

ANSWER: c
REFERENCES: Model Preconceptional Health and Nutrition Programs
LEARNING OBJECTIVES: NTLC.BRWN.17.2.7 - Cite three important nutrition-related components of preconceptional health care.
KEYWORDS: Remember

57. The National Academy of Nutrition and Dietetics has developed a set of standards called _____ to serve as guidelines for the delivery of nutrition services.

a. the Nutrition Care Process
b. WIC
c. Preconception Health Services
d. Pregnancy Health Standards
e. Preconception Nutrition Guidelines

ANSWER: a
REFERENCES: The Nutrition Care Process
LEARNING OBJECTIVES: NTLC.BRWN.17.2.8 - Describe the four steps of the Nutrition Care Process.
KEYWORDS: Remember

58. Which statement correctly describes preconception health care?

a. Preconception health care is concerned with the health and nutrition status of females rather than males.
b. Pregnant females are a target audience of preconception health care.
c. Fetal health and development is not a concern of preconception health care.
d. Preconception health care may concern topics such as weight and dietary supplement use.
e. Preconception health care advises couples about the most effective contraceptive methods to use.

ANSWER: d
REFERENCES: The Nutrition Care Process

LEARNING OBJECTIVES: NTLC.BRWN.17.2.8 - Describe the four steps of the Nutrition Care Process.
KEYWORDS: Remember

Matching

Matching
a. The biological inability to bear children after one year of unprotected intercourse
b. The mass of tissue formed from the follicle after the egg is released
c. The biological ability to bear children
d. The actual production of children
e. The developing organism from 8 weeks to birth
f. The developing organism from conception to 8 weeks
g. The involuntary absence of production of children
h. Taking an unusually long time to conceive or having repeated, early pregnancy losses
i. The period in life in which humans become biologically capable of reproduction
j. The absence of a menstrual cycle
k. The loss of a conceptus in the first 20 weeks of pregnancy

REFERENCES: Preconception Overview
LEARNING OBJECTIVES: NTLC.BRWN.17.2.1 - Cite three examples of the Healthy People 2020 nutrition-related objectives for the preconception period.
KEYWORDS: Remember

59. Fetus
ANSWER: g

60.
ANSWER: c

61. Subfertility
ANSWER: h

62. Fetus
ANSWER: e

63. Fertility
ANSWER: d

64. Infecundity
ANSWER: a

65. Miscarriage
ANSWER: k

Matching
a. The biological inability to bear children after one year of unprotected intercourse
b. The mass of tissue formed from the follicle after the egg is released
c. The biological ability to bear children

d. The actual production of children
e. The developing organism from 8 weeks to birth
f. The developing organism from conception to 8 weeks
g. The involuntary absence of production of children
h. Taking an unusually long time to conceive or having repeated, early pregnancy losses
i. The period in life in which humans become biologically capable of reproduction
j. The absence of a menstrual cycle
k. The loss of a conceptus in the first 20 weeks of pregnancy

REFERENCES: Reproductive Physiology

LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.

KEYWORDS: Remember

66. Puberty
ANSWER: i

67. Corpus luteum
ANSWER: b

Matching
a. The biological inability to bear children after one year of unprotected intercourse
b. The mass of tissue formed from the follicle after the egg is released
c. The biological ability to bear children
d. The actual production of children
e. The developing organism from 8 weeks to birth
f. The developing organism from conception to 8 weeks
g. The involuntary absence of production of children
h. Taking an unusually long time to conceive or having repeated, early pregnancy losses
i. The period in life in which humans become biologically capable of reproduction
j. The absence of a menstrual cycle
k. The loss of a conceptus in the first 20 weeks of pregnancy

REFERENCES: Nutrition and Fertility

LEARNING OBJECTIVES: NTLC.BRWN.17.2.3 - Describe the potential effects of nutrition-related factors such as body fat content, iron status, and alcohol intake on fertility in females and males.

KEYWORDS: Remember

68. Amenorrhea
ANSWER: j

Matching
a. The biological inability to bear children after one year of unprotected intercourse
b. The mass of tissue formed from the follicle after the egg is released
c. The biological ability to bear children
d. The actual production of children
e. The developing organism from 8 weeks to birth
f. The developing organism from conception to 8 weeks

g. The involuntary absence of production of children
h. Taking an unusually long time to conceive or having repeated, early pregnancy losses
i. The period in life in which humans become biologically capable of reproduction
j. The absence of a menstrual cycle
k. The loss of a conceptus in the first 20 weeks of pregnancy

REFERENCES: Nutrition During the Periconceptional Period

LEARNING OBJECTIVES: NTLC.BRWN.17.2.4 - Cite four examples of relationships between nutrient intake and nutritional status during the periconceptional period and the outcome of pregnancy.

KEYWORDS: Remember

69. The developing organism from conception to 8 weeks

ANSWER: f

Subjective Short Answer

70. Describe the three types of individuals who would be considered subfertile.

ANSWER: Women who experience multiple miscarriages (variously defined as two or three), men who have sperm abnormalities (such as low sperm count or density, malformed sperm, or immobile sperm), and women who ovulate infrequently are considered subfertile.

REFERENCES: Preconception Overview

LEARNING OBJECTIVES: NTLC.BRWN.17.2.1 - Cite three examples of the Healthy People 2020 nutrition-related objectives for the preconception period.

KEYWORDS: Understand

71. Discuss the relationship of weight and body fat in females. How can being very underweight or being very overweight affect fertility?

ANSWER: In normal-weight women, weight loss that exceeds approximately 10–15 percent of usual weight decreases estrogen, LH, and FSH concentrations. Consequences of these hormonal changes include amenorrhea, anovulatory cycles, and short or absent luteal phases. It is estimated that about 30 percent of cases of impaired fertility are related to simple weight loss. Hormone levels tend to return to normal when weight is restored to within 95 percent of previous weight. Weight gain is the recommended first-line treatment for amenorrhea related to low body weight.
Obese women tend to have higher levels of estrogen, androgens, and leptin than nonobese women. These hormonal changes favor the development of menstrual-cycle irregularity (it occurs in 30 to 47 percent of overweight and obese women), ovulatory failure and anovulatory cycles, and amenorrhea. Loss of body fat is related to improvements in hormone levels, oxidative stress and chronic inflammation, and conception rates in both men and women.

REFERENCES: Nutrition and Fertility

LEARNING OBJECTIVES: NTLC.BRWN.17.2.3 - Describe the potential effects of nutrition-related factors such as body fat content, iron status, and alcohol intake on fertility in females and males.

KEYWORDS: Understand

72. Describe the difference in development of mature eggs and sperm.

ANSWER: Females are born with a complement of immature ova and males with sperm-producing capabilities. For women, approximately 7 million immature ova, or primordial follicles, are formed during early fetal development, but only about one-half million per ovary remain by the onset of puberty. During a woman's fertile years, some 400–500 ova will mature and be released for possible fertilization. Due to losses in viable ova over time, very few remain by menopause. For men, sperm numbers and viability

decrease somewhat after approximately 35 years of age, but sperm are produced from puberty until death.

REFERENCES: Reproductive Physiology

LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.

KEYWORDS: Understand

73. Define pelvic inflammatory disease and explain its cause.

ANSWER: Pelvic inflammatory disease is a general term applied to infections of the cervix, uterus, fallopian tubes, or ovaries. It occurs predominantly in young women and is generally caused by infection with a sexually transmitted disease, such as gonorrhea or Chlamydia.

REFERENCES: Reproductive Physiology

LEARNING OBJECTIVES: NTLC.BRWN.17.2.2 - Identify six major hormones involved in the regulation of male and female fertility processes, and identify their source and effects on the regulation of fertility processes.

KEYWORDS: Understand

74. A couple trying to become pregnant for six months without success sought medical care. The husband had a body mass index of 28 and the woman had irregular menses. During their medical visit, the woman mentioned that she had lost 10 pounds one month ago because she was worried about gaining too much weight in pregnancy. What types of dietary or lifestyle behaviors would be important to discuss?

ANSWER: The husband's body mass index indicates that he is overweight. His excess body fat may be affecting his fertility. Thus, he may be advised to eat a healthier diet, following nutritional guidelines, and exercise because loss of body fat is related to improvements in hormone levels, oxidative stress and chronic inflammation, and conception rates. The woman's irregular menses after losing 10 pounds suggests that her weight loss negatively affected her fertility. Particularly, if she was originally of normal weight and lost 10 to 15% of her body weight through her diet, such weight loss has been linked to decreased estrogen, LH, and FSH concentrations. Her irregular menses, termed amenorrhea, may return to normal if her weight is restored to within 95% of her previous weight. Through regaining weight, her hormone levels may be returned to normal and her fertility improved.

REFERENCES: Nutrition and Fertility

LEARNING OBJECTIVES: NTLC.BRWN.17.2.3 - Describe the potential effects of nutrition-related factors such as body fat content, iron status, and alcohol intake on fertility in females and males.

KEYWORDS: Remember

75. Explain how contraceptive pills containing estradiol and progestin work.

ANSWER: When used together, estradiol and progestin suppress the action of LH and FSH and thereby ovulation. Progestin blocks LH and ovulation, and, by causing the cervical mucus to become thick and sticky, it induces a barrier to sperm.

REFERENCES: Influence of Contraceptives on Preconceptional Nutrition Status

LEARNING OBJECTIVES: NTLC.BRWN.17.2.6 - Identify three nutrition-related consequences that may be related to the use of combination hormonal contraceptives, and a consequence that is related to the use of estrogen or progestin contraceptives only.

KEYWORDS: Understand

76. How might male reproductive health suffer due to inadequate intake of antioxidant nutrients?

ANSWER: Antioxidant nutrients are needed to protect cells of the reproductive system, including eggs and sperm, from damage due to oxidative stress. Oxidative stress occurs when the production of potentially destructive reactive oxygen molecules (free radicals) exceeds the body's own antioxidant defenses. Reactive oxygen molecules attack polyunsaturated fatty acids in sperm membranes, and that

decreases sperm motility and reduces the ability of sperm to fuse with an egg. Once the membrane surrounding sperm is damaged, reactive oxygen molecules can enter the sperm cell and damage DNA. This can result in the passage of defective DNA.

REFERENCES: Nutrition and Fertility

LEARNING OBJECTIVES: NTLC.BRWN.17.2.3 - Describe the potential effects of nutrition-related factors such as body fat content, iron status, and alcohol intake on fertility in females and males.

KEYWORDS: Understand

77. Discuss the gene variant associated with folate status and its importance to preconceptional women.

ANSWER: Some individuals have an increased need for folate due to specific gene variants involved in folate metabolism. These gene variants can impair the conversion of folate to its active form and increase folate requirement. One of the best-studied and most common gene variants affects 5, 10-methylenetetrahydrofolate reductase (MTHFR) activity. This enzyme is responsible for production of the major circulating form of folate used by the body. The C677T allele of the gene that encodes for MTHFR produces an enzyme that has reduced activity. Women with this gene variant are at increased risk of having an NTD-affected newborn.

REFERENCES: Nutrition During the Periconceptional Period

LEARNING OBJECTIVES: NTLC.BRWN.17.2.4 - Cite four examples of relationships between nutrient intake and nutritional status during the periconceptional period and the outcome of pregnancy.

KEYWORDS: Understand

78. A nonprofit organization wants to support the 2020 nutrition objective for the nation that is related to reducing the incidence of spina bifida and other neural tube defects. Define neural tube defects and describe the time frame for their development after conception. Also, discuss any recommended behavioral or nutritional interventions important for women considering pregnancy.

ANSWER: Neural tube defects (NTDs) are a group of birth defects that are caused by incomplete development of the brain, spinal cord, or their protective coverings. Spina bifida is one of the most common types of NTDs. NTDs develop between the third and fourth week after conception—or before many women even know they are pregnant, and well before prenatal care generally begins. Folate is an essential nutrient required for DNA replication and as a component of enzymatic reactions involved in amino acid synthesis and vitamin metabolism. Knowledge of the folate–neural tube defect relationship, and awareness that folate intake was inadequate in many women of childbearing age, prompted public health efforts to increase folate intake. In particular, efforts are focused on encouraging women to consume folic acid, a highly absorbable, synthetic form of this B vitamin. In 1998, the Food and Drug Administration mandated that refined grain products such as white bread, grits, crackers, rice, and pasta be fortified with folic acid. Many countries now fortify refined grain products with folic acid, and rates of NTDs have decreased significantly in these countries.

REFERENCES: Nutrition During the Periconceptional Period

LEARNING OBJECTIVES: NTLC.BRWN.17.2.4 - Cite four examples of relationships between nutrient intake and nutritional status during the periconceptional period and the outcome of pregnancy.

KEYWORDS: Understand

79. What types of services are offered as part of preconceptional care?

ANSWER: Services focus on risk assessment of behaviors such as weight status, dietary and alcohol intake, folate and iron status, and vitamin, mineral, and herbal supplement use, as well as on the presence of diseases such as diabetes, hypertension, infections, and genetic traits that may be transmitted to offspring. Psychosocial needs should also be addressed as part of preconceptional care, and referrals made to appropriate services for issues such as eating disorders, abuse, violence, or lack of food or shelter.

REFERENCES: Model Preconceptional Health and Nutrition Programs

LEARNING OBJECTIVES: NTLC.BRWN.17.2.7 - Cite three important nutrition-related components of preconceptional health care.

KEYWORDS: Understand

80. List the four steps of the Nutrition Care Process.

ANSWER: The Nutrition Care Process consists of nutrition assessment, nutrition diagnosis, nutrition intervention, and nutrition monitoring and evaluation.

REFERENCES: The Nutrition Care Process

LEARNING OBJECTIVES: NTLC.BRWN.17.2.8 - Describe the four steps of the Nutrition Care Process.

KEYWORDS: Remember