

Test Bank¹ for Chapter 2 – Preconception Nutrition

Key to question information: ANS = correct answer; DIF = question difficulty; REF = page reference; OBJ = chapter learning objective for question section

Learning Objectives

- 2.1 Cite three examples of the Healthy People 2020 nutrition-related objectives for the preconception period.
- 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.
- 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.
- 2.4 Cite four examples of relationships between nutrient intake and nutritional status during the periconceptional period and the outcome of pregnancy.
- 2.5 Develop a one-day menu for a preconceptional woman and a man based on the ChooseMyPlate.gov food guidance materials.
- 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.
- 2.7 Cite three important nutrition-related components of preconceptional health care.
- 2.8 Describe the four steps of the Nutrition Care Process.

Multiple Choice

1. Fertility refers to _____.
 - a. the biological ability to bear children after intercourse
 - b. the absence of production of children
 - c. the actual production of children
 - d. the number of births per 1000 miscarriages

ANS: c DIF: Fact-based, easy

REF: 51

OBJ: 2.1

2. 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%

ANS: b DIF: Fact-based, easy

REF: 51

OBJ: 2.1

3. The _____ of the menstrual cycle occurs after ovulation.
 - a. follicular phase
 - b. luteal phase
 - c. estrogen phase
 - d. primordial phase
 - e. None of the above

ANS: b DIF: Fact-based, easy

REF: 54

OBJ: 2.2

¹ by Susan Gollnick of California Polytechnic State University and Tawni Holmes of University of Central Oklahoma; see the end of this document for a ready-to-use version of this test (without answers) for easy printing or cutting/pasting

4. What is the rate of miscarriages in the first 20 weeks of pregnancy?
- a. 6%
 - b. 7%
 - c. 8%
 - d. 9%

ANS: d DIF: Fact-based, medium

REF: 51

OBJ: 2.1

5. The most common cause of miscarriage for women is:
- a. structural abnormalities in the uterus.
 - b. the presence of a severe defect in the fetus.
 - c. maternal infection.
 - d. endocrine disorders.
 - e. unknown random events.

ANS: b DIF: Fact-based

REF: 51

OBJ: 2.1

6. The first half of the menstrual cycle is called the ____.
- a. follicular phase
 - b. luteal phase
 - c. estrogen phase
 - d. primordial phase
 - e. None of the above

ANS: a DIF: Fact-based, medium

REF: 52

OBJ: 2.2

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

ANS: c DIF: Fact-based

REF: 52

OBJ: 2.2

8. 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.

ANS: c DIF: Fact-based

REF: 52

OBJ: 2.2

9. What hormone triggers the production of testosterone by the testes?
- a. Follicle-stimulating hormone
 - b. Luteinizing hormone
 - c. Progesterone
 - d. Estrogen
 - e. a and b
 - f. c and d

ANS: e DIF: Fact-based, hard

REF: 55

OBJ: 2.2

10. Endometriosis is defined as:
- scarring and blockage of the fallopian tubes.
 - the condition in which endometrial tissue becomes embedded within other body tissues.
 - a modification of pregnancy hormones that results in infertility.
 - an infection of the cervix.
 - the inability to get pregnant.

ANS: b DIF: Fact-based

REF: 56

OBJ: 2.2

11. The leading diagnosis related to infertility is ____.
- endocrine abnormalities that modify hormonal regulation of fertility
 - excessive exercise in women
 - environmental contaminants such as lead and mercury
 - obesity in men
 - “unknown” causes

ANS: a DIF: Fact-based, easy

REF: 56

OBJ: 2.2

12. Which of the following factors would **NOT** be related to infertility in women?
- A high alcohol intake
 - Excessive exercise
 - A strict vegan diet
 - Having the flu virus and not eating for a day

ANS: d DIF: Application-based, medium

REF: 56-57|59

OBJ: 2.3

13. Fat cells produce all of the following hormones that may interfere with reproductive processes **EXCEPT**
- estrogen.
 - testosterone.
 - leptin.
 - insulin.
 - Fat cells do not produce any of these hormones.

ANS: d DIF: Fact-based

REF: 57

OBJ: 2.3

14. Which of the following nutrition factors would **NOT** be related to infertility in men?
- Following a weight-loss diet that resulted in a body weight 15% below normal
 - Eating a diet containing animal products
 - A high alcohol intake
 - An inadequate intake of antioxidants
 - An inadequate intake of zinc

ANS: b DIF: Application-based, medium

REF: 57-60

OBJ: 2.2|2.3

15. All of the following factors have been related to impaired fertility in males **EXCEPT**:
- high sperm count.
 - steroid abuse.
 - estrogen exposure.
 - excessive heat to testes.
 - chromosomal abnormalities in sperm.

ANS: a DIF: Fact-based

REF: 56

OBJ: 2.2

16. Approximately what % of couples fail to conceive within 12 months of attempting pregnancy?

- a. 25%
- b. 10%
- c. 50%
- d. 15%

ANS: d DIF: Fact-based, medium

REF: 51

OBJ: 2.1

17. Which of the following statements related to male and female fertility is true?

- a. During a woman's fertile years, approximately 1000 ova will mature and be released for possible fertilization.
- b. For men, sperm numbers and viability decrease somewhat after age 50.
- c. For both men and women, the quality of eggs and sperm decrease somewhat with age.
- d. All of the above are true

ANS: c DIF: Application-based, medium

REF: 52

OBJ: 2.2

18. Loss of body fat in obese men and women is related to:

- a. improved hormone levels.
- b. reduced oxidative stress.
- c. improved conception rates.
- d. All of the above
- e. a and b only

ANS: d DIF: Application-based

REF: 57

OBJ: 2.3

19. A body mass index (BMI) > _____ is typically needed to sustain normal reproductive function in women.

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

ANS: b DIF: Fact-based

REF: 57

OBJ: 2.3

20. The recommended first line of treatment for an underweight woman with amenorrhea is to _____.

- a. start exercising
- b. gain weight
- c. see a health care provider to obtain a medical prescription that helps with fertility
- d. None of the above

ANS: b DIF: Fact-based, easy

REF: 57

OBJ: 2.3

21. Which of the following dietary components has **NOT** been shown to have a relationship to impaired fertility in women?

- a. A regular intake of soy foods
- b. A low fat intake (<20%)
- c. Alcohol
- d. Caffeine
- e. Vitamin D

ANS: e DIF: Fact-based

REF: 59-60

OBJ: 2.3

22. A woman in her late forties wanted to increase the likelihood of becoming pregnant. She bought natural estrogen capsules over the Internet and increased her dietary fat intake. What information would be important for her to understand?
- Females are born with their lifetime supply of eggs.
 - Estrogen may have an inhibitory effect on fertility.
 - Weight gain can lead to infertility.
 - Infertility increases with increasing age.
 - All of the above

ANS: e DIF: Application-based, hard REF: 52|57 OBJ: 2.2|2.3

23. When women are trying to get pregnant it is recommended that they ____.
- drink in the evening to help with sleep
 - drink one glass of wine daily to reduce the effects of stress
 - drink one can of beer daily
 - restrict their alcohol intake

ANS: d DIF: Fact-based, medium REF: 60 OBJ: 2.3

24. Decreased fertility in men is related to sperm ____.
- number
 - motility
 - quality
 - a and c
 - a, b, and c

ANS: e DIF: Fact-based, easy REF: 51|56 OBJ: 2.1|2.2

25. Which of the following is **NOT** related to oral contraceptive use?
- Weight loss
 - Decreased blood levels of HDL cholesterol (the “good” cholesterol)
 - Increased risk of blood clots
 - Increased levels of triglycerides and LDL cholesterol (the “bad” cholesterol)
 - Increased blood glucose and insulin

ANS: a DIF: Fact-based, medium REF: 64 OBJ: 2.6

26. The primary reason women have given for discontinuation of progestin only contraceptives (e.g., Depo-Provera) is:
- weight gain.
 - irritability.
 - fatigue.
 - headache.
 - abdominal pain.

ANS: a DIF: Fact-based REF: 64 OBJ: 2.6

27. Current forms of contraceptives for women include all of the following **EXCEPT**:
- contraceptive implants.
 - nasal inhalants.
 - hormone-releasing IUDs.
 - monthly vaginal rings.
 - pills that contain estradiol and progestin.

ANS: b DIF: Fact-based REF: 64 OBJ: 2.6

28. Women taking oral contraceptive pills are cautioned against:

- a. large amounts of animal products.
- b. too many carbohydrates.
- c. more than $\frac{1}{2}$ cup peanut butter weekly.
- d. smoking.
- e. All of the above

ANS: d DIF: Fact-based

REF: 64

OBJ: 2.6

29. Women who experience multiple miscarriages, men who have sperm abnormalities, and women that ovulate infrequently may be classified as:

- a. fertile.
- b. infertile.
- c. subfertile.
- d. menopausal.
- e. infecund.

ANS: c DIF: Fact-based

REF: 51

OBJ: 2.1

30. The recommended daily intake of folic acid for **ALL** women who may become pregnant is:

- a. 40 mcg.
- b. 40 mg.
- c. 400 mcg.
- d. 400 mg.
- e. 400 g.

ANS: c DIF: Fact-based

REF: 63

OBJ: 2.5

31. In order to reduce the incidence of spina bifida and neural tube defects prior to conception, women should eat _____.

- a. fortified breakfast cereal
- b. fruits and vegetables
- c. refined grain cereals
- d. a and b
- e. a and c

ANS: e DIF: Fact-based, easy

REF: 61

OBJ: 2.4

32. Which of the following nutritional exposures before and very early in pregnancy would **NOT** disrupt fetal growth and development?

- a. Lack of folate in diet
- b. Poorly controlled blood glucose
- c. Overexposure to lead
- d. Excessive vitamin A
- e. Normal iron levels in the blood

ANS: e DIF: Application-based, easy

REF: 62

OBJ: 2.4

33. Nutritional exposures before and very early in pregnancy may disrupt fetal growth and development. Which of the following would **NOT** be considered an adverse nutritional exposure?

- a. Iodine deficiency
- b. Obesity
- c. Alcohol intake
- d. Poorly controlled glucose
- e. All of the above would be considered adverse nutritional exposures.

ANS: e DIF: Application-based

REF: 62

OBJ: 2.4

34. The primary effect(s) of being underweight on reproduction in women is/are:
- high likelihood of maternal complications.
 - the birth of small and early infants.
 - spina bifida or other NTDs.
 - All of the above
 - Both a and b

ANS: e DIF: Application-based

REF: 62

OBJ: 2.4

35. The specific 2020 nutrition objective to reduce iron deficiency in females of childbearing age by 10% is important because:
- women with iron deficiency are at increased risk for having babies with neural tube defects.
 - women with iron deficiency are at increased risk for early delivery.
 - babies of women with iron deficiency are at increased risk for developing iron deficiency within the first year of life.
 - All of the above
 - b and c only

ANS: e DIF: Application-based, medium

REF: 62

OBJ: 2.4

36. Which of the following statements is a Healthy People 2020 nutrition objective for the nation related to preconception?
- Increase the proportion of women who are at a healthy weight prior to pregnancy by 10%
 - Reduce the proportion of women aged 18-44 years who have impaired fecundity by 10%
 - Increase the proportion of women who did not drink alcohol prior to pregnancy by 10%
 - All of the above
 - a and c only

ANS: d DIF: Fact-based

REF: 52

OBJ: 2.1

37. What are potential consequences of delaying conception until you are in your 40s?
- Decreased chance of conception
 - Sperm become less viable
 - Higher likelihood for chromosomal abnormalities
 - All of the above
 - b and c only

ANS: d DIF: Application-based

REF: 52|56

OBJ: 2.2

38. A decrease in the production of GnRH (gonadotropin releasing hormone) would result in:
- a decrease in the production of FSH and LH.
 - a lack of follicular development.
 - the absence of ovulation.
 - All of the above
 - a and b only

ANS: d DIF: Application-based

REF: 52-53

OBJ: 2.2

39. Cramps and other side effects of menstruation can be traced back to the production of _____ by the uterus.
- progesterone
 - estrogen
 - prostaglandins
 - pituitary hormones
 - both a and b

ANS: c DIF: Application-based

REF: 55

OBJ: 2.2

40. When hormones are altered in the body, many changes take place that affect fertility; which of the following would **NOT** be one of those changes?
- a. Change in length or presence of the luteal phase
 - b. A decrease in the production of sperm
 - c. Alterations in the passageways that ova and sperm travel
 - d. Absence of the follicular phase
 - e. All of the above would be changes that occur.

ANS: d DIF: Application-based

REF: 56

OBJ: 2.2

41. Which of the following would **NOT** be a component of the Nutrition Care Process?
- a. Nutrition assessment
 - b. Nutrition diagnosis
 - c. Nutrition intervention
 - d. Nutrition screening
 - e. Nutrition monitoring

ANS: d DIF: Application-based

REF: 66

OBJ: 2.8

42. Your best friend is pregnant and asks you to recommend foods that will increase her iron stores. Which of the following would be the best choice?
- a. Oatmeal
 - b. A hamburger with tomato slices
 - c. Canned spinach
 - d. Seasonal fruit
 - e. Frozen peas

ANS: b DIF: Application-based

REF: 63

OBJ: 2.4

43. Young female athletes often experience a delay in menarch of approximately what duration?
- a. 1-2 years
 - b. 2-4 years
 - c. No delay in menarch
 - d. 6 mo-1 year
 - e. None of the above

ANS: b DIF: Application-based

REF: 60

OBJ: 2.3

44. Women should have annual examinations by their obstetrician to make sure they do not have pelvic inflammatory disease (PID) because:
- a. PID can cause less estrogen to be secreted, thus blocking ovulation.
 - b. PID can lead to scarring and blockage of the fallopian tubes.
 - c. PID transferred to a male can cause sperm to become less viable.
 - d. PID can increase the lining of the endometrium.
 - e. PID decreases zinc absorption.

ANS: b DIF: Application-based

REF: 56

OBJ: 2.2

45. Which hormone(s) produced by the corpus luteum is/are a common component of oral contraceptives and inhibit(s) ovulation?
- Estrogen
 - Follicle-stimulating hormone
 - Progesterone
 - a and b
 - a and c

ANS: e DIF: Application-based REF: 64 OBJ: 2.6

46. In a “typical” 28-day cycle, when would levels of luteinizing hormone most likely be the highest?
- Day 1
 - Day 7
 - Day 10
 - Day 14
 - Day 28

ANS: d DIF: Application-based REF: 52 OBJ: 2.2

47. Jane is 30 and has a BMI of 18; she and her husband have been trying to get pregnant for over a year, but she is not ovulating. Why would her doctor recommend weight gain and exercise instead of prescribing medication to induce ovulation?
- For a woman 30 years old, it is too risky to prescribe medication.
 - There are no medications on the market that induce ovulation.
 - She is underweight and needs to have a BMI >20 before conceiving.
 - Drugs that induce ovulation are less effective in underweight women.
 - a and d
 - c and d

ANS: f DIF: Application-based REF: 57 OBJ: 2.3

True/False

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

ANS: T DIF: Fact-based, easy REF: 51 OBJ: 2.1

2. Estrogen levels in women play a role in the development of infertility.

ANS: T DIF: Application-based, medium REF: 56|57 OBJ: 2.2|2.3

3. A 10-15% weight loss in normal-weight men and women will negatively affect their reproductive capacity.

ANS: T DIF: Fact-based REF: 56|57 OBJ: 2.2|2.3

4. Weight loss decreases fertility in men just as it does in women.

ANS: T DIF: Fact-based REF: 57 OBJ: 2.3

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

ANS: F DIF: Application-based REF: 59 OBJ: 2.3

6. Adequate folate intake is needed before conception.

ANS: T DIF: Fact-based, easy REF: 61 OBJ: 2.4

7. The preconception period is a prime time for couples to make positive behavioral changes in their lifestyle habits to ensure the best possible outcome.

ANS: T DIF: Application-based REF: 65 OBJ: 2.7

8. In all cases where positive dietary changes are made before becoming pregnant, infertility is always resolved.

ANS: F DIF: Fact-based, medium REF: 65 OBJ: 2.7

9. The alcohol consumption recommendation for men is the same as the alcohol consumption recommendation for women.

ANS: F DIF: Application-based, hard REF: 60 OBJ: 2.3

Matching

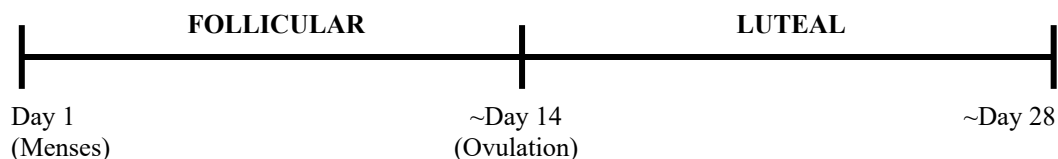
1. Infertility	A. biological inability to bear children after one year of unprotected intercourse
2. Fecundity	B. the mass of tissue formed from the follicle after the egg is released
3. Subfertility	C. biological capacity to bear children
4. Puberty	D. actual production of children
5. Corpus luteum	E. the developing organism from 8 weeks to birth
6. Amenorrhea	F. the developing organism from conception to 8 weeks
7. Embryo	G. absence of production of children
8. Fetus	H. taking an unusually long time to conceive or having repeated, early pregnancy losses
9. Fertility	I. the period in life in which humans become biologically capable of reproduction
10. Infecundity	J. absence of menstrual cycle

Key:

1. ANS: G	DIF: Fact-based	REF: 51	OBJ: 2.1
2. ANS: C	DIF: Fact-based	REF: 51	OBJ: 2.1
3. ANS: H	DIF: Fact-based	REF: 51	OBJ: 2.1
4. ANS: I	DIF: Fact-based	REF: 52	OBJ: 2.2
5. ANS: B	DIF: Fact-based	REF: 54	OBJ: 2.2
6. ANS: J	DIF: Fact-based	REF: 57	OBJ: 2.3
7. ANS: F	DIF: Fact-based	REF: 61	OBJ: 2.4
8. ANS: E	DIF: Fact-based	REF: 61	OBJ: 2.4
9. ANS: D	DIF: Fact-based	REF: 51	OBJ: 2.1
10. ANS: A	DIF: Fact-based	REF: 51	OBJ: 2.1

Short Answer

1. a.) Describe the roles of follicle-stimulating hormone (FSH) and luteinizing hormone (LH) during a woman's reproductive cycle. b.) Using a diagram like the one below, draw lines for each one showing how levels of these hormones change over the course of 28 days. c.) What is the name for the mass of tissue left after the follicle ruptures (ovulation), what 2 hormones are secreted by it, **AND** what do they do?



ANS: See pp. 52, 54-55.

DIF: Fact-based

REF: 52|54-55

OBJ: 2.2

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

ANS: See pp. 56-57.

DIF: Application-based, hard

REF: 56-57

OBJ: 2.3

3. 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?

ANS: See pp. 56-59.

DIF: Application-based, hard

REF: 56-59

OBJ: 2.3

4. Use the following information to answer questions a-e.

A 35-year-old woman wants to become pregnant. She has been taking birth control pills for 15 years and has a BMI of 32. She is a strict vegetarian (no meat or dairy!) and currently does not take any vitamins. She lives in a one-room studio with her boyfriend and spends her afternoons sunbathing and reading romance novels.

- How long will it take (on average) for her to resume normal reproductive function when she stops taking the pill?
- Based on her body mass index (BMI), she would be considered ____.
- What is the recommended amount of folate pre-pregnancy?
- Which vitamins and/or minerals would you be most concerned about her lacking with her current diet?
- Outline a meal plan for this woman to follow that would provide her with the nutrients she is missing. What else would you suggest for her?

ANS: See pp. 56-64.

DIF: Application-based

REF: 56-64

OBJ: 2.3|2.4|2.5

5. A couple is planning a pregnancy; the woman has been using oral contraceptives. What nutrition-related potential consequences of contraceptives should you discuss with them?

ANS: See p. 64.

DIF: Application-based, medium

REF: 64

OBJ: 2.6

6. A county in Los Angeles, California received a grant. The money was to be used to increase the birth weight of infants born to families who work for minimum wage. Describe a possible program that would provide preconceptional counseling and the important dietary information used in educational sessions.

ANS: See pp. 64-65.

DIF: Application-based, hard

REF: 64-65

OBJ: 2.7

7. 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.

ANS: See pp. 61-63.

DIF: Fact-based, hard

REF: 61-63

OBJ: 2.4

Ready-to-Use Chapter 2 Test

Multiple Choice

1. Fertility refers to _____.
 - a. the biological ability to bear children after intercourse
 - b. the absence of production of children
 - c. the actual production of children
 - d. the number of births per 1000 miscarriages
2. 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%
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 - e. 50-75%
3. The _____ of the menstrual cycle occurs after ovulation.
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 - c. estrogen phase
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 - e. None of the above
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b. motility
c. quality
d. a and c
e. a, b, and c
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d. Increased levels of triglycerides and LDL cholesterol (the “bad” cholesterol)
e. Increased blood glucose and insulin
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c. fatigue.
d. headache.
e. abdominal pain.
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a. contraceptive implants.
b. nasal inhalants.
c. hormone-releasing IUDs.
d. monthly vaginal rings.
e. pills that contain estradiol and progestin.
28. Women taking oral contraceptive pills are cautioned against:
a. large amounts of animal products.
b. too many carbohydrates.
c. more than $\frac{1}{2}$ cup peanut butter weekly.
d. smoking.
e. All of the above
29. Women who experience multiple miscarriages, men who have sperm abnormalities, and women that ovulate infrequently may be classified as:
a. fertile.
b. infertile.
c. subfertile.
d. menopausal.
e. infecund.
30. The recommended daily intake of folic acid for **ALL** women who may become pregnant is:
a. 40 mcg.
b. 40 mg.
c. 400 mcg.
d. 400 mg.
e. 400 g.

31. In order to reduce the incidence of spina bifida and neural tube defects prior to conception, women should eat ____.
- a. fortified breakfast cereal
 - b. fruits and vegetables
 - c. refined grain cereals
 - d. a and b
 - e. a and c
32. Which of the following nutritional exposures before and very early in pregnancy would **NOT** disrupt fetal growth and development?
- a. Lack of folate in diet
 - b. Poorly controlled blood glucose
 - c. Overexposure to lead
 - d. Excessive vitamin A
 - e. Normal iron levels in the blood
33. Nutritional exposures before and very early in pregnancy may disrupt fetal growth and development. Which of the following would **NOT** be considered an adverse nutritional exposure?
- a. Iodine deficiency
 - b. Obesity
 - c. Alcohol intake
 - d. Poorly controlled glucose
 - e. All of the above would be considered adverse nutritional exposures.
34. The primary effect(s) of being underweight on reproduction in women is/are:
- a. high likelihood of maternal complications.
 - b. the birth of small and early infants.
 - c. spina bifida or other NTDs.
 - d. All of the above
 - e. Both a and b
35. The specific 2020 nutrition objective to reduce iron deficiency in females of childbearing age by 10% is important because:
- a. women with iron deficiency are at increased risk for having babies with neural tube defects.
 - b. women with iron deficiency are at increased risk for early delivery.
 - c. babies of women with iron deficiency are at increased risk for developing iron deficiency within the first year of life.
 - d. All of the above
 - e. b and c only
36. Which of the following statements is a Healthy People 2020 nutrition objective for the nation related to preconception?
- a. Increase the proportion of women who are at a healthy weight prior to pregnancy by 10%
 - b. Reduce the proportion of women aged 18-44 years who have impaired fecundity by 10%
 - c. Increase the proportion of women who did not drink alcohol prior to pregnancy by 10%
 - d. All of the above
 - e. a and c only
37. What are potential consequences of delaying conception until you are in your 40s?
- a. Decreased chance of conception
 - b. Sperm become less viable
 - c. Higher likelihood for chromosomal abnormalities
 - d. All of the above
 - e. b and c only

38. A decrease in the production of GnRH (gonadotropin releasing hormone) would result in:
- a decrease in the production of FSH and LH.
 - a lack of follicular development.
 - the absence of ovulation.
 - All of the above
 - a and b only
39. Cramps and other side effects of menstruation can be traced back to the production of _____ by the uterus.
- progesterone
 - estrogen
 - prostaglandins
 - pituitary hormones
 - both a and b
40. When hormones are altered in the body, many changes take place that affect fertility; which of the following would **NOT** be one of those changes?
- Change in length or presence of the luteal phase
 - A decrease in the production of sperm
 - Alterations in the passageways that ova and sperm travel
 - Absence of the follicular phase
 - All of the above would be changes that occur.
41. Which of the following would **NOT** be a component of the Nutrition Care Process?
- Nutrition assessment
 - Nutrition diagnosis
 - Nutrition intervention
 - Nutrition screening
 - Nutrition monitoring
42. Your best friend is pregnant and asks you to recommend foods that will increase her iron stores. Which of the following would be the best choice?
- Oatmeal
 - A hamburger with tomato slices
 - Canned spinach
 - Seasonal fruit
 - Frozen peas
43. Young female athletes often experience a delay in menarche of approximately what duration?
- 1-2 years
 - 2-4 years
 - No delay in menarche
 - 6 mo-1 year
 - None of the above
44. Women should have annual examinations by their obstetrician to make sure they do not have pelvic inflammatory disease (PID) because:
- PID can cause less estrogen to be secreted, thus blocking ovulation.
 - PID can lead to scarring and blockage of the fallopian tubes.
 - PID transferred to a male can cause sperm to become less viable.
 - PID can increase the lining of the endometrium.
 - PID decreases zinc absorption.

45. Which hormone(s) produced by the corpus luteum is/are a common component of oral contraceptives and inhibit(s) ovulation?
- Estrogen
 - Follicle-stimulating hormone
 - Progesterone
 - a and b
 - a and c
46. In a “typical” 28-day cycle, when would levels of luteinizing hormone most likely be the highest?
- Day 1
 - Day 7
 - Day 10
 - Day 14
 - Day 28
47. Jane is 30 and has a BMI of 18; she and her husband have been trying to get pregnant for over a year, but she is not ovulating. Why would her doctor recommend weight gain and exercise instead of prescribing medication to induce ovulation?
- For a woman 30 years old, it is too risky to prescribe medication.
 - There are no medications on the market that induce ovulation.
 - She is underweight and needs to have a BMI >20 before conceiving.
 - Drugs that induce ovulation are less effective in underweight women.
 - a and d
 - c and d

True/False

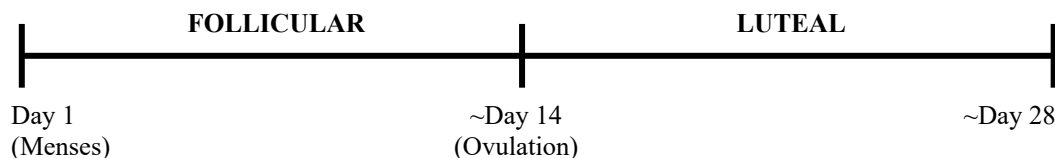
- The subfertility of one partner can be overcome by the reproductive capacity in the other partner.
- Estrogen levels in women play a role in the development of infertility.
- A 10-15% weight loss in normal-weight men and women will negatively affect their reproductive capacity.
- Weight loss decreases fertility in men just as it does in women.
- Women trying to get pregnant should avoid **ALL** sources of caffeine.
- Adequate folate intake is needed before conception.
- The preconception period is a prime time for couples to make positive behavioral changes in their lifestyle habits to ensure the best possible outcome.
- In all cases where positive dietary changes are made before becoming pregnant, infertility is always resolved.
- The alcohol consumption recommendation for men is the same as the alcohol consumption recommendation for women.

Matching

1. Infertility	A. biological inability to bear children after one year of unprotected intercourse
2. Fecundity	B. the mass of tissue formed from the follicle after the egg is released
3. Subfertility	C. biological capacity to bear children
4. Puberty	D. actual production of children
5. Corpus luteum	E. the developing organism from 8 weeks to birth
6. Amenorrhea	F. the developing organism from conception to 8 weeks
7. Embryo	G. absence of production of children
8. Fetus	H. taking an unusually long time to conceive or having repeated, early pregnancy losses
9. Fertility	I. the period in life in which humans become biologically capable of reproduction
10. Infecundity	J. absence of menstrual cycle

Short Answer

1. a.) Describe the roles of follicle-stimulating hormone (FSH) and luteinizing hormone (LH) during a woman's reproductive cycle. b.) Using a diagram like the one below, draw lines for each one showing how levels of these hormones change over the course of 28 days. c.) What is the name for the mass of tissue left after the follicle ruptures (ovulation), what 2 hormones are secreted by it, **AND** what do they do?



2. Discuss the relationship of weight and body fat in females. How can being very underweight or being very overweight affect fertility?
3. 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?
4. Use the following information to answer questions a-e.

A 35-year-old woman wants to become pregnant. She has been taking birth control pills for 15 years and has a BMI of 32. She is a strict vegetarian (no meat or dairy!) and currently does not take any vitamins. She lives in a one-room studio with her boyfriend and spends her afternoons sunbathing and reading romance novels.
 - a. How long will it take (on average) for her to resume normal reproductive function when she stops taking the pill?
 - b. Based on her body mass index (BMI), she would be considered ____.
 - c. What is the recommended amount of folate pre-pregnancy?
 - d. Which vitamins and/or minerals would you be most concerned about her lacking with her current diet?
 - e. Outline a meal plan for this woman to follow that would provide her with the nutrients she is missing. What else would you suggest for her?
5. A couple is planning a pregnancy; the woman has been using oral contraceptives. What nutrition-related potential consequences of contraceptives should you discuss with them?
6. A county in Los Angeles, California received a grant. The money was to be used to increase the birth weight of infants born to families who work for minimum wage. Describe a possible program that would provide preconceptual counseling and the important dietary information used in educational sessions.
7. 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.