

Test Bank¹ for Chapter 3 – Preconception Nutrition: Conditions and Interventions

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

Learning Objectives

- 3.1 Identify the symptoms of premenstrual syndrome and the effect of PMS treatment strategies on fertility status of women with the syndrome.
- 3.2 Explain the primary mechanisms that underlie the effects of obesity and underweight on fertility in women and men.
- 3.3 Identify two mechanisms by which a negative energy balance can influence fertility.
- 3.4 Identify two ways in which good blood glucose control during the periconceptional period can benefit fetal growth and development.
- 3.5 Cite three key components of the nutritional management of PCOS.
- 3.6 Identify the major reasons why dietary control of PKU is particularly important during pregnancy.
- 3.7 Describe three nutritional consequences of untreated celiac disease.

Multiple Choice

1. The definition of the **periconceptional** period is _____.
 - a. the developing organism from 8 weeks to the moment of birth
 - b. the month before conception
 - c. the time period around conception measured in weeks or months
 - d. the month after conception
 - e. None of the above

ANS: c DIF: Fact-based, easy

REF: 71

OBJ: 3.1

2. Premenstrual dysphoric disorder (PMDD) is characterized by:
 - a. mood swings.
 - b. irritability.
 - c. depressed mood.
 - d. physical symptoms.
 - e. All of the above

ANS: e DIF: Fact-based, medium

REF: 71

OBJ: 3.1

3. Which of the following would **NOT** be used to treat PMS symptoms?
 - a. Increased intake of caffeine
 - b. Oral contraceptives
 - c. Supplements like B₆ or calcium
 - d. Chasteberry extract
 - e. Antidepressants

ANS: a DIF: Fact-based

REF: 71-72

OBJ: 3.1

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. Which of the following would **NOT** be considered a sign or symptom of premenstrual syndrome?
- Swollen glands under the jaw
 - Fatigue
 - Abdominal bloating
 - Mood swings
 - Anxiety

ANS: a DIF: Fact-based REF: 71 OBJ: 3.1

5. Symptoms of PMS occur in about ____ of menstruating women.
- 10-12%
 - 27-30%
 - 34%
 - 15-25%
 - 55%

ANS: d DIF: Fact-based REF: 71 OBJ: 3.1

6. Untreated phenylketonuria in pregnant women can lead to:
- increased risk of heart defects in the infant.
 - infants with microcephaly.
 - severe mental retardation in children.
 - All of the above
 - a and b only

ANS: d DIF: Application-based, hard REF: 80 OBJ: 3.6

7. A nutrient that would effectively treat headaches and cramps in a woman with PMS is ____.
- vitamin B₆
 - calcium
 - magnesium
 - vitamin E

ANS: b DIF: Fact-based, easy REF: 72 OBJ: 3.1

8. ____ is the first therapeutic option for infertility in obese people.
- Medication
 - Weight loss
 - Hormone therapy
 - In-vitro fertilization
 - Surgery

ANS: b DIF: Application-based REF: 74 OBJ: 3.2

9. Excess central body fat is related to ____.
- insulin resistance
 - ovulatory disorders
 - metabolic syndrome
 - All of the above

ANS: d DIF: Fact-based, easy REF: 72 OBJ: 3.2

10. An eating disorder that affects fertility is ____.
- hypothalamic amenorrhea
 - anorexia nervosa
 - bulimia nervosa
 - celiac disease
 - b and c
 - a and b

ANS: f DIF: Application-based, medium REF: 75 OBJ: 3.3

11. The onset of hypothalamic amenorrhea is related to:
- being underweight, as is seen in anorexia nervosa.
 - weight loss accompanied by intense exercise, as seen in the female athlete triad.
 - caloric restriction leading to an energy deficit.
 - All of the above
 - a and b only

ANS: d DIF: Fact-based, easy REF: 75 OBJ: 3.3

12. Which of the following is an example of an autoimmune disease?
- Phenylketonuria (PKU)
 - Type 1 diabetes
 - Type 2 diabetes
 - The female athlete triad
 - Polycystic ovary syndrome

ANS: b DIF: Fact-based REF: 77 OBJ: 3.4

13. ____ during the first 2 months of pregnancy is teratogenic and leads to a two- to three-fold risk of congenital abnormalities.
- A high blood glucose level
 - Type 1 diabetes
 - Type 2 diabetes
 - Insulin resistance
 - Celiac disease

ANS: a DIF: Fact-based REF: 76 OBJ: 3.4

14. Diet strategies appropriate for people with type 2 diabetes include all of the following **EXCEPT**:
- weight loss if overweight.
 - increasing fruit and vegetable intake to include plant antioxidants.
 - low-glycemic index foods that are rich in fiber.
 - 150 minutes per week of physical activity.
 - ≤40% of total intake from saturated fats.

ANS: e DIF: Application-based REF: 76-78 OBJ: 3.4

15. The most effective approach for risk reduction in people with diabetes so far is:
- drug therapy and weight loss.
 - drug therapy and exercise.
 - weight loss and exercise.
 - behavioral therapy.

ANS: c DIF: Fact-based REF: 78 OBJ: 3.4

16. What statement below best describes the difference between carbohydrate intake recommendations for persons with insulin resistance such as in metabolic syndrome and those for persons with type 2 diabetes?
- Persons with type 2 diabetes should eat more complex carbohydrates than persons with insulin resistance should.
 - Persons with insulin resistance should eat more complex carbohydrates than persons with type 2 diabetes should.
 - Carbohydrate intake recommendations for persons with type 2 diabetes are more tailor-made than for persons with insulin resistance.
 - There is no difference between carbohydrate recommendations.

ANS: d DIF: Application-based, hard REF: 73 | 76-77 OBJ: 3.4

17. Diets that provide low-glycemic index carbohydrates along with ____ of fiber daily are associated with improved blood glucose control.
- 15 g
 - 25-35 g
 - 14 g per 1000 calories
 - 38 g
 - 50 g

ANS: c DIF: Fact-based REF: 77 OBJ: 3.4

18. Bariatric surgery increases the risk that women will develop deficiencies of:
- iron.
 - zinc.
 - calcium.
 - vitamins B₆, B₁₂, and D.
 - All of the above

ANS: e DIF: Fact-based REF: 75 OBJ: 3.2

19. Which of the following supplements may be recommended to prevent or delay the onset of gestational and type 2 diabetes?
- Vitamin D
 - Vitamin E
 - Iron
 - Calcium
 - a and b

ANS: b DIF: Fact-based REF: 78 OBJ: 3.4

20. A symptom **NOT** related to PCOS is ____.
- insulin resistance
 - amenorrhea
 - infertility
 - low testosterone levels

ANS: d DIF: Fact-based, medium REF: 79 OBJ: 3.5

21. Clinical signs associated with polycystic ovary syndrome (PCOS) include:

- a. insulin resistance.
- b. infertility.
- c. obesity.
- d. excess abdominal fat.
- e. All of the above

ANS: e DIF: Fact-based

REF: 79

OBJ: 3.5

22. The primary **GOAL** of the treatment of PCOS is:

- a. to increase insulin sensitivity.
- b. to induce weight loss if overweight.
- c. to regulate blood lipid levels.
- d. to reverse infertility.
- e. to prevent diabetes from developing.

ANS: a DIF: Fact-based

REF: 79

OBJ: 3.5

23. Symptoms of PCOS often improve with a ____ loss of initial body weight.

- a. 2 to 4%
- b. 4 to 6%
- c. 5 to 10%
- d. 10 to 12%
- e. 15%

ANS: c DIF: Fact-based

REF: 79

OBJ: 3.5

24. Dietary recommendations for women with PCOS emphasize:

- a. whole grains, fruits, and vegetables high in antioxidants.
- b. lean sources of protein.
- c. high-glycemic index carbohydrate sources.
- d. All of the above
- e. a and b only

ANS: e DIF: Application-based

REF: 79

OBJ: 3.5

25. The two grains persons with celiac disease can safely consume are ____.

- a. corn and rice
- b. oats and wheat
- c. rye and rice
- d. barley and oats

ANS: a DIF: Application-based, hard

REF: 82 | 84

OBJ: 3.7

26. Foods to avoid if you have celiac disease include:

- a. oats, corn, wheat, and rye.
- b. wheat, rye, and barley.
- c. wheat, corn, oats, and soy.
- d. wheat, rye, oats, and eggs.
- e. all of the above

ANS: b DIF: Application-based

REF: 82 | 84

OBJ: 3.7

27. Signs and symptoms of celiac disease include all of the following **EXCEPT**:

- iron-deficiency anemia.
- bloating.
- infertility.
- bleeding gums.
- weight loss.

ANS: d DIF: Fact-based

REF: 84

OBJ: 3.7

28. Which of the following foods is sure to be gluten free?

- Corn
- Deli meat
- Hotdogs
- Salad dressings
- Bouillon

ANS: a DIF: Application-based

REF: 81-82

OBJ: 3.7

29. Judy has been suffering from depression, breast tenderness, muscle pain, anxiety, and headaches for the past 2 months; it is likely she is suffering from:

- polycystic ovary syndrome (PCOS).
- premenstrual syndrome (PMS).
- premenstrual dysphoric disorder (PMDD).
- dysmenorrhea.
- celiac disease.

ANS: c DIF: Application-based

REF: 71

OBJ: 3.1

30. How could having irregular menstrual cycles lead to a lack of early prenatal care for some obese women?

- When women don't menstruate they may feel they are not ovulating and can't get pregnant, so they don't get prenatal care
- Women may not be aware they are already pregnant because a delay in their menses is normal
- Women think an egg will not implant without ovulation
- All of the above
- a and b only

ANS: e DIF: Application-based

REF: 73-74

OBJ: 3.2

Use the following information to answer questions 31-33.

Jane and her husband are interested in having a child, but she has had a hard time conceiving. She has met with her OB-GYN to have a physical, labs drawn, and a prenatal check-up in order to determine what the problem is. Lab work and other relevant data for Jane are as follows:

Age: 36

Blood pressure 110/70 mm Hg;

HDL cholesterol 35 mg/dL;

Waist circumference = 36";

Fasting blood glucose 130 mg/dL;

Blood triglycerides 175 mg/dL;

Current weight 150#; Height 5'3"

31. Based on the data above, Jane will likely be diagnosed with:

- type 2 diabetes.
- metabolic syndrome.
- celiac disease.
- hypothalamic amenorrhea.
- gestational diabetes.

ANS: b DIF: Application-based REF: 73 OBJ: 3.2

32. Which of the following symptoms would indicate that Jane has this diagnosis?
- Her blood pressure, weight, and height
 - Hard time with conception and her age
 - High fasting blood glucose, blood triglycerides, and HDL cholesterol levels
 - Her waist circumference, age, and blood pressure
 - All of the above

ANS: c DIF: Application-based REF: 73 OBJ: 3.2

33. Dietary modifications for this diagnosis would include:
- avoiding wheat, rye, oats, and barley.
 - avoiding aspartame and artificial sweeteners.
 - avoiding sugar.
 - including whole grains and fruits and vegetables that are high in antioxidants.
 - making sure to consume 1000 mg calcium per day.

ANS: d DIF: Application-based REF: 73 OBJ: 3.2

34. The three components of the female athlete triad are:
- anemia, anorexia, and osteoporosis.
 - amenorrhea, anemia, and anorexia.
 - amenorrhea, disordered eating, and osteoporosis.
 - disordered eating, anemia, and osteoarthritis.
 - disordered eating, osteoporosis, and infertility.

ANS: c DIF: Fact-based REF: 75 OBJ: 3.3

35. When a woman develops “carbohydrate intolerance” during pregnancy, this means that:
- she complains of a dislike of carbohydrate-containing foods that commonly occurs during the second trimester of pregnancy.
 - her pancreas cannot produce insulin, so glucose cannot get into cells.
 - her blood glucose levels increase abnormally after she eats carbohydrate-containing foods.
 - All of the above
 - b and c only

ANS: c DIF: Application-based REF: 77 OBJ: 3.4

36. Which of the following conditions would **NOT** be seen in higher rates in obese women?
- Type 1 diabetes
 - Infertility
 - Type 2 diabetes
 - PCOS
 - Metabolic syndrome

ANS: a DIF: Application-based REF: 72|76-79 OBJ: 3.2|3.4|3.5

37. Women that have PKU must avoid the essential amino acid phenylalanine and consume a diet low in protein because:
- they lack enough stomach acid (HCl) to break down dietary proteins, including phenylalanine.
 - they are allergic to phenylalanine and other protein-rich foods.
 - they lack the enzyme necessary to convert phenylalanine to tyrosine.
 - phenylalanine and protein-rich foods cause an accumulation of acid to build up in the blood.
 - None of the above is correct.

ANS: c DIF: Fact-based

REF: 80

OBJ: 3.6

True/False

1. Low levels of sex hormone binding globulin are related to increased availability of testosterone and estrogen in the body.

ANS: T DIF: Fact-based, easy

REF: 74

OBJ: 3.2

2. PCOS is easy to diagnose because the signs and symptoms are the same for all women.

ANS: F DIF: Fact-based

REF: 79

OBJ: 3.5

3. The treatment for celiac disease is long-term steroid therapy.

ANS: F DIF: Fact-based

REF: 81-82

OBJ: 3.7

4. All people with type 2 diabetes can manage their glucose levels with diet and exercise only.

ANS: F DIF: Fact-based

REF: 77

OBJ: 3.4

Matching

1. Rotavirus	A. Cell membranes have reduced sensitivity to insulin
2. Amenorrhea	B. The time period around conception
3. Insulin resistance	C. No menstrual cycle
4. Congenital abnormality	D. Syndrome characterized by mood swings, irritability, and physical symptoms
5. Teratogenic	E. Most common cause of diarrhea among children
6. Glycemic index	F. Exposures that produce malformations in embryos or fetuses
7. PMDD	G. A structural, functional, or metabolic abnormality present at birth
8. Periconceptional period	H. Carbohydrate intolerance first discovered during pregnancy
9. Gestational diabetes	I. Rapid uncontrolled eating followed by compensatory behaviors
10. Bulimia nervosa	J. A measure of the extent to which blood glucose levels are raised

Key:

1. ANS: E	DIF: Fact-based	REF: 84	OBJ: 3.7
2. ANS: C	DIF: Fact-based	REF: 73	OBJ: 3.2
3. ANS: A	DIF: Fact-based	REF: 72	OBJ: 3.2
4. ANS: G	DIF: Fact-based	REF: 76	OBJ: 3.4
5. ANS: F	DIF: Fact-based	REF: 76	OBJ: 3.4
6. ANS: J	DIF: Fact-based	REF: 76	OBJ: 3.4
7. ANS: D	DIF: Fact-based	REF: 71	OBJ: 3.1
8. ANS: B	DIF: Fact-based	REF: 71	OBJ: 3.1
9. ANS: H	DIF: Fact-based	REF: 77	OBJ: 3.4
10. ANS: I	DIF: Fact-based	REF: 75	OBJ: 3.3

Short Answer

1. A woman with type 2 diabetes taking an oral medication wants to become pregnant. Discuss the dietary recommendations that will promote better pregnancy outcomes and normalize her blood sugars.

ANS: See pp. 76-78.

DIF: Application-based, hard

REF: 76-78

OBJ: 3.4

2. Discuss how using low-glycemic index foods might help someone with diabetes manage his/her blood glucose levels. List several low-glycemic foods that would be appropriate for someone wishing to incorporate them into his/her diet.

ANS: See pp. 76-77.

DIF: Application-based

REF: 76-77

OBJ: 3.4

3. Individuals with metabolic syndrome are at risk for cardiovascular disease and diabetes. How does adjusting their diet reduce their risks? Are there any other lifestyle adjustments that can also help? Outline a one-day diet that incorporates foods that will help reverse the risk factors associated with metabolic syndrome. Be sure to note which foods would be the most beneficial.

ANS: See pp. 72-73.

DIF: Application-based

REF: 72-73

OBJ: 3.2

4. Describe the difference between congenital malformations and inborn errors of metabolism. Cite one example of an inborn error of metabolism and describe the best nutrition-related intervention.

ANS: See pp. 76, 80-81.

DIF: Fact-based, medium

REF: 76|80-81

OBJ: 3.4|3.6

5. A friend was recently diagnosed with polycystic ovary disease. Describe some characteristics of the disease, the first line of therapy, and dietary changes needed. Also, identify two healthy outcomes related to successful treatment.

ANS: See pp. 78-79.

DIF: Fact-based, hard

REF: 78-79

OBJ: 3.5

6. Keep track of your diet for one day, making sure to write down **EVERYTHING** you consume, including condiments. Once you have done this, analyze your foods to see how many of them include grains that would be unacceptable for someone with celiac disease to consume. Then, make substitutions for these foods with an acceptable substitute and write

out a new menu. How easy is it to detect these offending grains for someone who is not familiar with nutrition?

Websites to check out:

<http://www.celiac.org/>

<http://www.glutenfree.com/>

ANS: See pp. 81-82.

DIF: Application-based

REF: 81-82

OBJ: 3.7

Ready-to-Use Chapter 3 Test

Multiple Choice

- The definition of the **periconceptual** period is _____.
 - the developing organism from 8 weeks to the moment of birth
 - the month before conception
 - the time period around conception measured in weeks or months
 - the month after conception
 - None of the above
- Premenstrual dysphoric disorder (PMDD) is characterized by:
 - mood swings.
 - irritability.
 - depressed mood.
 - physical symptoms.
 - All of the above
- Which of the following would **NOT** be used to treat PMS symptoms?
 - Increased intake of caffeine
 - Oral contraceptives
 - Supplements like B₆ or calcium
 - Chasteberry extract
 - Antidepressants
- Which of the following would **NOT** be considered a sign or symptom of premenstrual syndrome?
 - Swollen glands under the jaw
 - Fatigue
 - Abdominal bloating
 - Mood swings
 - Anxiety
- Symptoms of PMS occur in about _____ of menstruating women.
 - 10-12%
 - 27-30%
 - 34%
 - 15-25%
 - 55%
- Untreated phenylketonuria in pregnant women can lead to:
 - increased risk of heart defects in the infant.
 - infants with microcephaly.
 - severe mental retardation in children.
 - All of the above
 - a and b only
- A nutrient that would effectively treat headaches and cramps in a woman with PMS is _____.
 - vitamin B₆
 - calcium
 - magnesium
 - vitamin E

8. _____ is the first therapeutic option for infertility in obese people.
- Medication
 - Weight loss
 - Hormone therapy
 - In-vitro fertilization
 - Surgery
9. Excess central body fat is related to _____.
- insulin resistance
 - ovulatory disorders
 - metabolic syndrome
 - All of the above
10. An eating disorder that affects fertility is _____.
- hypothalamic amenorrhea
 - anorexia nervosa
 - bulimia nervosa
 - celiac disease
 - b and c
 - a and b
11. The onset of hypothalamic amenorrhea is related to:
- being underweight, as is seen in anorexia nervosa.
 - weight loss accompanied by intense exercise, as seen in the female athlete triad.
 - caloric restriction leading to an energy deficit.
 - All of the above
 - a and b only
12. Which of the following is an example of an autoimmune disease?
- Phenylketonuria (PKU)
 - Type 1 diabetes
 - Type 2 diabetes
 - The female athlete triad
 - Polycystic ovary syndrome
13. _____ during the first 2 months of pregnancy is teratogenic and leads to a two- to three-fold risk of congenital abnormalities.
- A high blood glucose level
 - Type 1 diabetes
 - Type 2 diabetes
 - Insulin resistance
 - Celiac disease
14. Diet strategies appropriate for people with type 2 diabetes include all of the following **EXCEPT**:
- weight loss if overweight.
 - increasing fruit and vegetable intake to include plant antioxidants.
 - low-glycemic index foods that are rich in fiber.
 - 150 minutes per week of physical activity.
 - ≤40% of total intake from saturated fats.

15. The most effective approach for risk reduction in people with diabetes so far is:
- drug therapy and weight loss.
 - drug therapy and exercise.
 - weight loss and exercise.
 - behavioral therapy.
16. What statement below best describes the difference between carbohydrate intake recommendations for persons with insulin resistance such as in metabolic syndrome and those for persons with type 2 diabetes?
- Persons with type 2 diabetes should eat more complex carbohydrates than persons with insulin resistance should.
 - Persons with insulin resistance should eat more complex carbohydrates than persons with type 2 diabetes should.
 - Carbohydrate intake recommendations for persons with type 2 diabetes are more tailor-made than for persons with insulin resistance.
 - There is no difference between carbohydrate recommendations.
17. Diets that provide low-glycemic index carbohydrates along with _____ of fiber daily are associated with improved blood glucose control.
- 15 g
 - 25-35 g
 - 14 g per 1000 calories
 - 38 g
 - 50 g
18. Bariatric surgery increases the risk that women will develop deficiencies of:
- iron.
 - zinc.
 - calcium.
 - vitamins B₆, B₁₂, and D.
 - All of the above
19. Which of the following supplements may be recommended to prevent or delay the onset of gestational and type 2 diabetes?
- Vitamin D
 - Vitamin E
 - Iron
 - Calcium
 - a and b
20. A symptom **NOT** related to PCOS is _____.
- insulin resistance
 - amenorrhea
 - infertility
 - low testosterone levels
21. Clinical signs associated with polycystic ovary syndrome (PCOS) include:
- insulin resistance.
 - infertility.
 - obesity.
 - excess abdominal fat.
 - All of the above

22. The primary **GOAL** of the treatment of PCOS is:
- to increase insulin sensitivity.
 - to induce weight loss if overweight.
 - to regulate blood lipid levels.
 - to reverse infertility.
 - to prevent diabetes from developing.
23. Symptoms of PCOS often improve with a ____ loss of initial body weight.
- 2 to 4%
 - 4 to 6%
 - 5 to 10%
 - 10 to 12%
 - 15%
24. Dietary recommendations for women with PCOS emphasize:
- whole grains, fruits, and vegetables high in antioxidants.
 - lean sources of protein.
 - high-glycemic index carbohydrate sources.
 - All of the above
 - a and b only
25. The two grains persons with celiac disease can safely consume are ____.
- corn and rice
 - oats and wheat
 - rye and rice
 - barley and oats
26. Foods to avoid if you have celiac disease include:
- oats, corn, wheat, and rye.
 - wheat, rye, and barley.
 - wheat, corn, oats, and soy.
 - wheat, rye, oats, and eggs.
 - all of the above
27. Signs and symptoms of celiac disease include all of the following **EXCEPT**:
- iron-deficiency anemia.
 - bloating.
 - infertility.
 - bleeding gums.
 - weight loss.
28. Which of the following foods is sure to be gluten free?
- Corn
 - Deli meat
 - Hotdogs
 - Salad dressings
 - Bouillon
29. Judy has been suffering from depression, breast tenderness, muscle pain, anxiety, and headaches for the past 2 months; it is likely she is suffering from:
- polycystic ovary syndrome (PCOS).
 - premenstrual syndrome (PMS).
 - premenstrual dysphoric disorder (PMDD).
 - dysmenorrhea.
 - celiac disease.

30. How could having irregular menstrual cycles lead to a lack of early prenatal care for some obese women?
- When women don't menstruate they may feel they are not ovulating and can't get pregnant, so they don't get prenatal care
 - Women may not be aware they are already pregnant because a delay in their menses is normal
 - Women think an egg will not implant without ovulation
 - All of the above
 - a and b only

Use the following information to answer questions 31-33.

Jane and her husband are interested in having a child, but she has had a hard time conceiving. She has met with her OB-GYN to have a physical, labs drawn, and a prenatal check-up in order to determine what the problem is. Lab work and other relevant data for Jane are as follows:

Age: 36	Fasting blood glucose 130 mg/dL;
Blood pressure 110/70 mm Hg;	Blood triglycerides 175 mg/dL;
HDL cholesterol 35 mg/dL;	Current weight 150#; Height 5'3"
Waist circumference = 36";	

31. Based on the data above, Jane will likely be diagnosed with:
- type 2 diabetes.
 - metabolic syndrome.
 - celiac disease.
 - hypothalamic amenorrhea.
 - gestational diabetes.
32. Which of the following symptoms would indicate that Jane has this diagnosis?
- Her blood pressure, weight, and height
 - Hard time with conception and her age
 - High fasting blood glucose, blood triglycerides, and HDL cholesterol levels
 - Her waist circumference, age, and blood pressure
 - All of the above
33. Dietary modifications for this diagnosis would include:
- avoiding wheat, rye, oats, and barley.
 - avoiding aspartame and artificial sweeteners.
 - avoiding sugar.
 - including whole grains and fruits and vegetables that are high in antioxidants.
 - making sure to consume 1000 mg calcium per day.
34. The three components of the female athlete triad are:
- anemia, anorexia, and osteoporosis.
 - amenorrhea, anemia, and anorexia.
 - amenorrhea, disordered eating, and osteoporosis.
 - disordered eating, anemia, and osteoarthritis.
 - disordered eating, osteoporosis, and infertility.

35. When a woman develops “carbohydrate intolerance” during pregnancy, this means that:
- she complains of a dislike of carbohydrate-containing foods that commonly occurs during the second trimester of pregnancy.
 - her pancreas cannot produce insulin, so glucose cannot get into cells.
 - her blood glucose levels increase abnormally after she eats carbohydrate-containing foods.
 - All of the above
 - b and c only
36. Which of the following conditions would **NOT** be seen in higher rates in obese women?
- Type 1 diabetes
 - Infertility
 - Type 2 diabetes
 - PCOS
 - Metabolic syndrome
37. Women that have PKU must avoid the essential amino acid phenylalanine and consume a diet low in protein because:
- they lack enough stomach acid (HCl) to break down dietary proteins, including phenylalanine.
 - they are allergic to phenylalanine and other protein-rich foods.
 - they lack the enzyme necessary to convert phenylalanine to tyrosine.
 - phenylalanine and protein-rich foods cause an accumulation of acid to build up in the blood.
 - None of the above is correct.

True/False

- Low levels of sex hormone binding globulin are related to increased availability of testosterone and estrogen in the body.
- PCOS is easy to diagnose because the signs and symptoms are the same for all women.
- The treatment for celiac disease is long-term steroid therapy.
- All people with type 2 diabetes can manage their glucose levels with diet and exercise only.

Matching

1. Rotavirus	A. Cell membranes have reduced sensitivity to insulin
2. Amenorrhea	B. The time period around conception
3. Insulin resistance	C. No menstrual cycle
4. Congenital abnormality	D. Syndrome characterized by mood swings, irritability, and physical symptoms
5. Teratogenic	E. Most common cause of diarrhea among children
6. Glycemic index	F. Exposures that produce malformations in embryos or fetuses
7. PMDD	G. A structural, functional, or metabolic abnormality present at birth
8. Periconceptional period	H. Carbohydrate intolerance first discovered during pregnancy
9. Gestational diabetes	I. Rapid uncontrolled eating followed by compensatory behaviors
10. Bulimia nervosa	J. A measure of the extent to which blood glucose levels are raised

Short Answer

1. A woman with type 2 diabetes taking an oral medication wants to become pregnant. Discuss the dietary recommendations that will promote better pregnancy outcomes and normalize her blood sugars.
 2. Discuss how using low-glycemic index foods might help someone with diabetes manage his/her blood glucose levels. List several low-glycemic foods that would be appropriate for someone wishing to incorporate them into his/her diet.
 3. Individuals with metabolic syndrome are at risk for cardiovascular disease and diabetes. How does adjusting their diet reduce their risks? Are there any other lifestyle adjustments that can also help? Outline a one-day diet that incorporates foods that will help reverse the risk factors associated with metabolic syndrome. Be sure to note which foods would be the most beneficial.
 4. Describe the difference between congenital malformations and inborn errors of metabolism. Cite one example of an inborn error of metabolism and describe the best nutrition-related intervention.
 5. A friend was recently diagnosed with polycystic ovary disease. Describe some characteristics of the disease, the first line of therapy, and dietary changes needed. Also, identify two healthy outcomes related to successful treatment.
- A
6. Keep track of your diet for one day, making sure to write down **EVERYTHING** you consume, including condiments. Once you have done this, analyze your foods to see how many of them include grains that would be unacceptable for someone with celiac disease to consume. Then, make substitutions for these foods with an acceptable substitute and write out a new menu. How easy is it to detect these offending grains for someone who is not familiar with nutrition?

3-18

Websites to check out:

<http://www.celiac.org/>

<http://www.glutenfree.com/>