

Chapter 27

Baking for Special Diets

Dietary concerns are becoming more important in the lives of many people, so chefs and bakers are paying more attention to these concerns. Food service workers are learning to help their customers eat more healthfully while still enjoying desserts, breads, and other treats. Even more important, cooks and bakers are learning to help customers with allergies avoid foods that can be extremely dangerous for them. This chapter introduces you to the most important concepts of baking for special diets.

After studying Chapter 27, you should be able to

1. Identify and describe nutritional concerns associated with baked goods and desserts.
2. Identify and describe allergy and food intolerance concerns associated with baked goods and desserts.
3. Identify the three ways to modify an ingredient in a baking formula to make the formula suitable for a specialized diet.
4. Using a knowledge of ingredient functions, describe how to reduce or eliminate fat, sugar, gluten, and dairy products in baking formulas.

A. TERMS

Fill in each blank with the term that is defined or described.

- _____ 1. Referring to a vegetarian diet that excludes all animal products, including dairy products and eggs.
- _____ 2. Referring to a vegetarian diet that includes dairy products and eggs.
- _____ 3. Referring to a vegetarian diet that includes milk and other dairy products.
- _____ 4. A solid fat, usually manufactured by hydrogenation, which limits the body's ability to rid itself of cholesterol.
- _____ 5. A substance that triggers an allergic reaction.
- _____ 6. A sudden, severe, allergic reaction of the immune system.
- _____ 7. Any of a group of nutrients that are essential for growth, for building body tissue, and for basic body functions, and that can also be used for energy if the diet doesn't contain enough carbohydrates and fats.
- _____ 8. The amount of heat needed to raise the temperature of one kilogram of water one degree Celsius; used as a measure of food energy.
- _____ 9. A type of complex carbohydrate that is not absorbed by the body but that is necessary for the proper functioning of the digestive system.
- _____ 10. A fatty substance found in foods derived from animal products and in the human body; it has been linked to heart disease.
- _____ 11. A food that provide few nutrients per calorie.
- _____ 12. An allergic reaction to gluten in which the lining of the intestine is damaged.
- _____ 13. The quantity of nutrients per calorie.
- _____ 14. A non-allergic reaction to a food that may be characterized by any of a variety of undesirable symptoms.

- _____ 15. A food component that is essential for the functioning or growth of an organism.
- _____ 16. Any of a group of compounds, including starches and sugars, that supply energy to the body.
- _____ 17. A fat that is normally solid at room temperature.
- _____ 18. Any of a group of compounds that are present in foods in very small quantities and that are necessary for regulating body functions.
- _____ 19. Any of a group of compound, consisting of chains of fatty acids, that supply energy to the body in a concentrated form.
- _____ 20. A type of synthetic sweetener derived from sucrose.

B. SHORT-ANSWER QUESTIONS

1. Give two examples of foods with high nutrient density.

- Give two examples of foods with low nutrient density.

2. List the 6 categories of nutrients.

3. List 6 examples of ways in which ingredients of breads and pastries can be modified to increase their nutritional content.

4. Name two categories of vegetarian diets that include eggs.

5. In the space below, explain how *cross-contamination* in a bakeshop can pose a hazard for customers suffering from a food allergy.

6. Of all food allergies, which one poses the greatest challenge for bakers? Why?

7. Identify the three ways to modify an ingredient in a baking formula to make the formula suitable for a specialized diet.

(a) _____

(b) _____

(c) _____

8. What are the four primary functions of basic bakeshop ingredients? After each function, list the ingredients that are included in that category.

(a) _____

(b) _____

(c) _____

(d) _____

9. When you reduce the amount of fat in a formula to make it suitable for a special diet, what two basic techniques can you use to make sure that the formula you have changed is still in balance? Give examples of each.

(a) _____

(b) _____

10. What milk substitutes are available for people with milk allergies?

11. For each of the following ingredients, circle the word “Yes” if that ingredient is suitable for use in a gluten-free diet. Circle “No” if it is not.

Yes No Cornstarch

Yes No Arrowroot

Yes No Potato starch

Yes No Rye flour

Yes No Barley flour

Yes No Rice flour

Yes No Oat flour

Yes No Soy flour

Yes No Tapioca flour

Yes	No	Buckwheat flour
Yes	No	Chick pea (garbanzo) flour
Yes	No	Malt
Yes	No	Spelt flour
Yes	No	Semolina