

Judi Davis / Kim Sherer

Applied Nutrition and Diet Therapy for Nurses

SECOND EDITION



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Applied Nutrition and Diet Therapy for Nurses

SECOND EDITION

Dedication

*To instructors and students who
struggle to squeeze the study of nutrition
into the ever-expanding nursing curriculum*

About the Authors

Judi Ratliff Davis, M.S., C.N.S.D., R.D., L.D., received her B.S. from the University of Texas at Austin and her M.S. in nutrition from Texas Woman's University in Denton and completed a dietetic internship at Indiana University Medical Center in Indianapolis. She has had a variety of experiences in the field of nutrition, including teaching, clinical dietitian, and consultant. She has taught various nutrition and food service courses at Tarrant County Junior College in Fort Worth, Texas. She has served as a clinical dietitian at Rehabilitation Hospital of North Texas, Arlington, Texas; Fort Worth State School, Fort Worth, Texas; Rex Hospital in Raleigh, North Carolina; and Baptist Memorial Hospital in San Antonio, Texas. She has also worked as a nutrition consultant for nursing homes and mental health facilities in western Virginia, San Antonio, and the Dallas–Fort Worth area; for the Greenhouse, a health spa in Arlington, Texas; and for the Sugar Association.

Kim Sherer, R.N., M.N., obtained her B.S. in nursing at Oklahoma University Health Science Center in Oklahoma City and her M.N. at Wichita State University. She has worked as staff nurse, charge nurse, and House Supervisor at Stillwater Medical Center in Stillwater, Oklahoma. In addition to teaching nursing students at Northern Oklahoma College in Tonkawa, Oklahoma, she is currently the Chair of the Nursing Division.

The study of nutrition can be an interesting and rewarding subject for nursing students, not only for client education, but also for their own health. This book is designed to show nursing students how to apply sound nutrition principles in assessing, diagnosing, planning, implementing, and evaluating total care of clients and to help the student contribute to the nutritional well-being of clients. A holistic approach to dietary management of a disease by the entire health care team is especially appropriate to coordinate totally integrated client care.

Since the subject of nutrition is a top priority in today's society, the public faces the challenge of understanding nutritional information. As key members on the health care team, nurses are expected to discuss sound nutritional practices knowledgeably and authoritatively with their clients or the general public.

Nutritional information in this book is compiled clearly and concisely to provide an understanding of the therapeutic value of foods in the normal diet. Using the *Behavioral Objectives* as a guide, both the student and the instructor know the important information to be gained from each chapter. The *Chapter Outline* lists specific subjects to be covered. Questions in the margins and *Student Readiness* at the end of each chapter help students determine their comprehension of the subject. *Test Your NQ* (nutrition quotient) is a brief true-false pretest to stimulate interest in the reading assignment. Answers are located in Appendix G. Learning is also challenged by *Case Studies* in many chapters. Throughout the text, nutrition is integrated into the nursing process. In basic nutrition chapters, *Nursing Applications* provide practical information about how this information can affect the client's care or nutritional status; tips for *Client Education* help the student realize what the client should know or be taught. In therapeutic chapters, *Nursing Applications* provide specific information established during an *assessment* (physical, dietary, and laboratory), *interventions* or factors that need to be considered in caring for the client, some suggestions for *evaluation* of nursing care of the client's nutritional status, and information for *Client Education*. The *Nursing Process in Action* in each chapter describes a situation and is followed by the five-step nursing process care plan so students can see how to "pull it all together." *Nutrition Update*, presented in some chapters, provides state-of-the-art information on emerging issues in nutrition. An institutional-type menu introduced in Chapter 12 is used as a basis for therapeutic menus so students can realize types of changes in food choices necessary to meet dietary restrictions.

Section I deals with basic principles of nutrition. An understanding of basic nutrition facts is required for the student to evaluate the flood of new information available, to make wise judgments about eating habits, and to counsel clients about dietary changes needed. Nutrient deficiencies and excesses are addressed in sections entitled *Hyper-* and *Hypo-*, terms that are more familiar to nursing students and are more congruent with real-life occurrences. This unit contains sections on how a vegetarian can obtain an adequate balance of nutrients, food fads and misin-

formation, sugar and fat substitutes, carbohydrate loading for trained athletes, and many other relevant topics.

Section II, "Orientation to Clinical Nutrition," helps the student apply basic nutrition principles while providing care to clients in a community or hospital setting. Alternate methods of feeding, or using tube feedings or intravenous feedings, may be encountered in the clinical or home setting. Since the nurse is usually the health care team member most closely associated with intravenous and tube feedings, a thorough discussion of this subject is presented.

Problems specifically involved in application of basic nutrition principles through the life span and with ethnic groups are presented in Section III so the nurse can recognize other dietary habits and incorporate any necessary modifications with sensitivity and respect. Changes in nutritional requirements and eating patterns affected by various stages of life are discussed. Breast-feeding has been covered extensively to enable students to encourage this practice. Other subjects include premenstrual syndrome (PMS), hyperactivity, and Alzheimer's disease.

Nutrition support for vulnerable populations is discussed in Section IV. A nutritional assessment is a basic essential for the nutritional well-being of all clients; this involves performing a physical assessment, evaluating dietary intake/history, and monitoring pertinent laboratory values. Many conditions and their outcomes are improved by encouraging clients to eat well or to make minor changes in food choices to improve their health.

Dietary modifications essential to treat diseases are described in Section V. Pathophysiology is limited to indications for diet therapy; principles for the dietary treatment are emphasized. Pertinent nursing applications are cited. Integrated into the discussions are related laboratory findings and drug-nutrient interactions.

The Appendix contains information for completing assignments and reference material. Food composition tables include the nutritive values of food from three sources: (1) the latest USDA Handbooks 8-1 through 8-21, (2) items from fast-food restaurants, and (3) supplementary and tube feedings. Tables that are important in nutritional assessments are included.

The nurse has considerable influence on the client's food acceptance. With a better understanding of the importance of diet, the entire health care team can complement each other and provide optimal care for the client. While specific amounts of nutrients are mentioned, much of this information is presented so nurses can prescribe special diets, but so they can recognize usual therapeutic measures for specific conditions and call any discrepancies to the attention of the physician or dietitian. This will also enable them to explain the reason for various treatments to the client.

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Because of the diversity of subjects presented in a general nutrition textbook, a compilation of the work of many people, whether direct or indirect, is necessary to present up-to-date information. Whether the aid was in the area of a research study or verbal or written communications, each person's help and support is truly appreciated.

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Orientation to Basic Nutrition

This section will cover all the basic nutrients essential for good health, what foods contain these essential elements, and what happens if you eat too much or too little of them. In other words, it prepares you to provide optimal nutritional care for yourself and your clients so you can assess nutrient intake and suggest ways to improve food choices. You will learn there is no one perfect food, but it is the overall food choices that affect one's health.



