



EIGHTH
EDITION

*Core
Concepts
in Health*

Paul M. Insel · Walton T. Roth

EIGHTH
EDITION



Core Concepts in Health

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Preface

Now in its eighth edition, *Core Concepts in Health* has maintained its leadership in the field of health education for over 20 years. Since we pioneered the concept of self-responsibility for personal health in 1976, hundreds of thousands of students have used our book to become active, informed participants in their own health care. Each edition of *Core Concepts* has brought improvements and refinements, but the principles underlying the book have remained the same. Our commitment to these principles has never been stronger than it is today.

OUR GOALS

Our goals in writing this book can be stated simply:

- To present scientifically based, accurate, up-to-date information in an accessible format.
- To involve students in taking responsibility for their health and well-being.
- To instill a sense of competence and personal power in students.

The first of these goals means making expert knowledge about health and health care available to the individual. *Core Concepts* brings scientifically based, accurate, up-to-date information to students about topics and issues that concern them—exercise, stress, nutrition, weight management, contraception, intimate relationships, HIV infection, drugs, alcohol, and a multitude of others. Current, complete, and straightforward coverage is balanced with “user-friendly” features designed to make the text appealing. Written in an engaging, easy-to-read style and presented in a colorful, open format, *Core Concepts* invites the student to read, learn, and remember. Boxes, tables, artwork, photographs, and many other features highlight areas of special interest throughout the book.

The second of our goals is to involve students in taking responsibility for their health. *Core Concepts* uses innovative pedagogy and unique interactive features to get students thinking about how the material they’re reading relates to their own lives. We invite them to examine their emotions about the issues under discussion, to consider their personal values and beliefs, and to analyze their health-related behaviors. Beyond this, for students who want to change behaviors that detract from a healthy lifestyle, we offer guidelines and tools, ranging from sam-

ples of health journals and personal contracts to detailed assessments and behavior change strategies.

Perhaps our third goal in writing *Core Concepts in Health* is the most important: to instill a sense of competence and personal power in the students who read the book. Everyone has the ability to monitor, understand, and affect his or her own health. Although the medical and health professions possess impressive skills and have access to a huge body of knowledge that benefits everyone in our society, people can help to minimize the amount of professional care they actually require in their lifetime by taking care of their health—taking charge of their health—from an early age. Our hope is that *Core Concepts* will continue to help young people make this exciting discovery—that they have the power to shape their own futures.

ORGANIZATION AND CONTENT OF THE EIGHTH EDITION

The organization of the book as a whole remains essentially the same as in the seventh edition, with some improvements. The book is divided into eight parts. Part One, Establishing a Basis for Wellness, includes chapters on taking charge of your health (Chapter 1), stress (Chapter 2), and psychological health (Chapter 3). Part Two, Understanding Sexuality, opens with an exploration of intimate relationships, including friendship, intimate partnerships, marriage, and family (Chapter 4), and then moves on to discuss physical sexuality (Chapter 5), contraception (Chapter 6), abortion (Chapter 7), and pregnancy and childbirth (Chapter 8). As in previous editions of *Core Concepts*, we devote a separate chapter to abortion to reflect both the importance of this issue and our belief that abortion is not a form of contraception and should not be included in the chapter on that topic.

The order of topics in Part Three, Making Responsible Decisions: Substance Use and Abuse, has been changed for the eighth edition. The part opens with an expanded discussion of addictive behavior and the different classes of psychoactive drugs (Chapter 9), followed by chapters on alcohol (Chapter 10) and tobacco (Chapter 11). The chapters in Part Four, Getting Fit, have also been reordered. Following a detailed discussion of nutrition (Chapter 12), we turn first to exercise (Chapter 13) and

then to weight management (Chapter 14). Placing the material on exercise before the coverage of weight management helps emphasize the important role that physical activity plays in maintaining a healthy body weight.

Part Five, Protecting Yourself Against Disease, deals with the most serious health threats facing Americans today—cardiovascular disease (Chapter 15), cancer (Chapter 16), and infectious diseases, including those that are sexually transmitted. The chapters in Part Five have been reordered in the eighth edition so that the discussion of the immune system (Chapter 17) precedes the material on sexually transmitted diseases (Chapter 18). This change will aid students' understanding of the impact of HIV on the immune system.

Part Six, Accepting Physical Limits, explores aging (Chapter 19) and dying and death (Chapter 20). Part Seven, Making Choices in Health Care, provides information about medical self-care (Chapter 21) and the health care system (Chapter 22). And finally, Part Eight, Improving Your Chances: Personal Safety and Environmental Health, expands the boundaries of health to include injury prevention (Chapter 23) and the effects of environment on wellness (Chapter 24). Taken together, the chapters of the book provide students with a complete guide to promoting and protecting their health, now and through their entire lives, as individuals, as participants in a health care community and system, and as citizens of a planet that also needs to be protected if it is to continue providing human beings with the means to live healthy lives.

For the eighth edition, all chapters were carefully reviewed, revised, and updated. The latest information from scientific and health-related research is incorporated in the text, and newly emerging topics and issues are discussed. The following list gives a sample of some of the current concerns addressed in the eighth edition:

- Causes and prevention of violence
- Women's health issues
- Health information on the Internet
- Spiritual wellness
- Progress toward *Healthy People 2000* objectives
- The Surgeon General's 1996 recommendations for physical activity
- HIV treatment and testing
- Binge drinking on college campuses
- Diet and cancer
- Stress and disease
- Addictive behavior
- Genetic testing for cancer
- Safe use of air bags
- Critical thinking and consumer choices

- Emerging infectious diseases
- Physician-assisted death
- Effective communication

For the eighth edition, the coverage of violence has been expanded and moved to Chapter 23, Personal Safety: Protecting Yourself from Unintentional Injuries and Violence. Chapter 23 includes new and expanded sections on factors that contribute to violence, assault, homicide, gangs, hate crimes, family and intimate violence, sexual violence, and the role of firearms in violent injury and death. New boxes help students identify the potential for abusiveness in an intimate partner, prevent date rape, and protect themselves from all types of violent crime. The coverage of unintentional injuries—the leading cause of death for Americans under the age of 45—has also been revised and updated for the eighth edition. The goals of Chapter 23 are to make students more aware of why injuries happen and to give them concrete strategies for keeping themselves safe.

The coverage of HIV infection in Chapter 18, Sexually Transmitted Diseases, has been revised to reflect recent developments in testing and treatment. New illustrations show the effects of HIV on the immune system, the actions of new antiviral drugs, and the relative risk of different types of sexual behaviors. Four boxes address related issues—"HIV Infection Around the World," "Getting an HIV Test," "Talking About Condoms and Safer Sex," and "Preventing HIV Infection." Another box asks students to carefully examine their attitudes and behaviors to determine whether they are putting themselves at risk for HIV infection or another STD.

Chapter 9, The Use and Abuse of Psychoactive Drugs, includes a new opening section on addictive behaviors in general—what they are and how they develop. This section provides specific information on four potentially addictive behaviors: gambling, shopping, sex, and Internet use. The remainder of Chapter 9 covers key psychoactive drugs and includes up-to-date coverage of drug testing, drug legalization, and the social costs of drug use.

Two areas of particular concern—and the subjects of a great deal of recent research—are cardiovascular disease and cancer, the two leading killers of Americans. Chapters 15 and 16 report the latest findings on the roles of diet, exercise, tobacco use, infectious agents, and genetics in determining an individual's risk for developing CVD or cancer. Eleven new boxes address related topics, such as genetic tests for cancer risk, how hormones affect a woman's risk for heart disease, and how personality and social support affect disease risk and outcome.

Core Concepts also takes care to address the health issues and concerns of an increasingly diverse student population. While most health concerns are universal—we all need to eat well, exercise, and manage stress, for example—certain differences among people have impor-

tant implications for health. These differences can be genetic or cultural, based on factors such as gender, socioeconomic status, age, and ethnicity. Where such differences are important for health, they are discussed in the text or in a type of highlight box called Dimensions of Diversity (discussed in greater detail below). Examples of these discussions include the links between ethnicity and genetic diseases, the relationship between poverty and environmental health, and the effects of gender and ethnicity on body image.

The coverage of health issues for diverse populations has been expanded in the eighth edition, with topics in women's health receiving special attention. The gender gap in medical research has been closing since the establishment of the Office of Research on Women's Health at the National Institutes of Health, and more and more new information has become available as a result of the Women's Health Initiative, the Nurses' Health Study, and other large-scale investigations. New to the eighth edition are discussions of special risks faced by women who smoke or drink, hormonal influences on cardiovascular health and disease, reasons why women are at increased risk for depression and autoimmune disorders, and special dietary challenges faced by women.

The health field is dynamic, with new discoveries, advances, trends, and theories reported every week. Ongoing research—on the role of diet in cancer prevention, for example, or on new treatments for HIV infection—continually changes our understanding of the human body and how it works in health and disease. For this reason, no health book can claim to have the final word on every topic. Yet within these limits, *Core Concepts* does present the latest available information and scientific thinking on innumerable topics.

To aid students in keeping up with rapidly advancing knowledge about health issues, the eighth edition of *Core Concepts* also includes coverage of a key source of up-to-date information—the Internet. Each chapter includes an annotated list of World Wide Web sites that students can use as a launching point for further exploration of important topics. Appendix C, Resources for Self-Care, provides a brief introduction to the Internet, including guidelines for performing Web searches, using newsgroups and mailing lists, and evaluating health information from the Web. Several elements of the supplements package also include Internet resources and activities; see below for more details.

FEATURES OF THE EIGHTH EDITION

This edition of *Core Concepts in Health* builds on the features that attracted and held our readers' interest in the previous editions. One of the most popular features has always been the **boxes**, which allow us to explore a wide

range of current topics in greater detail than is possible in the text itself. About half the boxes are new to the eighth edition, and many others have been significantly revised or updated. The boxes are divided into six categories, each marked with a unique icon and label.



Tactics and Tips boxes distill from each chapter the practical advice students need in order to apply information to their own lives. By referring to these boxes, students can easily find ways to foster friendships, for example; to become more physically active; to improve communication in their relationships; to reduce the amount of fat in their diets; and to help a friend who has a problem with tobacco or drugs or has an eating disorder.



Critical Consumer boxes, new to the eighth edition, emphasize the key theme of critical thinking. These boxes are designed to help students develop and apply critical thinking skills, thereby allowing them to make sound choices related to health and well-being. Critical Consumer boxes provide specific guidelines for evaluating health news and advertising, using food labels to make dietary choices, choosing and using medical self-tests, avoiding quackery, selecting exercise footwear, making environmentally friendly shopping choices, and so on.



Dimensions of Diversity boxes are part of our commitment to reflect and respond to the diversity of the student population. These boxes give students the opportunity to identify any special health risks that affect them because of who they are as individuals or as members of a group. They also broaden students' perspectives by exposing them to a wide variety of viewpoints on health-related issues. The different dimensions these boxes reflect include gender, ethnicity, socioeconomic status, and age. The principles embodied by these boxes are described in the first box in the series, "Health Issues for Diverse Populations," which appears in Chapter 1. Topics covered in later chapters include special cardiovascular disease risks for African Americans, exercise for people with disabilities, suicide among older men, ethnic diets and cuisines, links between poverty and poor environmental health, and attitudes toward aging.

In addition, some Dimensions of Diversity boxes highlight health issues and practices in other parts of the world, allowing students to see what Americans share with people in other societies and how they differ. Students have the opportunity to learn about patterns of alcohol use in different cultures, laws and attitudes toward contraception and abortion in other countries, the pattern of HIV infection around the world, and other topics of interest.



Sound Mind, Sound Body boxes explore the close connection between mind and body. Drawn from studies in psychoneuroimmunology and related fields, these boxes focus on total wellness by examining the links between people's feelings and states of mind and their physical health; the boxes emphasize that all the dimensions of wellness must be developed in order for an individual to achieve optimal health and well-being. Included in Sound Mind, Sound Body boxes are topics such as how social support promotes wellness, how stress affects the immune system, how hostility and cardiovascular disease are linked, how intimate relationships improve health, and how exercise fosters psychological and emotional wellness.



Assess Yourself boxes give students the opportunity to examine their behavior and identify ways that they can change their habits and improve their health. By referring to these boxes, students can examine their eating habits, for example; evaluate their fitness level; discover if they are at increased risk for cancer or cardiovascular disease; evaluate their driving skills; determine what triggers their eating; and examine their drinking and drug-taking behavior.



A Closer Look boxes highlight current wellness topics of particular interest. Topics include bicycle helmets, diabetes, asthma, genetic testing for cancer, shyness, Prozac, codependency, and physician-assisted death.

In addition to the box program, many new and refined features are included in the eighth edition of *Core Concepts*. Each chapter opens with a new feature called **Test Your Knowledge**—a series of 4–6 multiple choice and true-false questions, with answers. These self-quizzes facilitate learning by getting students involved in a variety of wellness-related issues. The questions emphasize important points, highlight common misconceptions, and spark debate.

Vital Statistics tables and figures highlight important facts and figures in a memorable format that often reveals surprising contrasts and connections. From tables and figures marked with the Vital Statistics label, students can learn about drinking and drug use among college students, health care costs in the United States, world population growth, homicide rates, trends in public opinion about abortion, and a wealth of other information. For students who grasp a subject best when it is displayed graphically, numerically, or in a table, the Vital Statistics feature provides alternative ways of approaching and understanding the text.

The eighth edition also features an expanded program of attractive and helpful **illustrations**. The anatomical

art, which has been prepared by medical illustrators, is both visually appealing and highly informative. These illustrations help students understand such important information as how blood flows through the heart, how the process of conception occurs, and how to use a condom. Many of the graphs, charts, and other illustrations have been rendered in a dynamic and appealing new style. New topics illustrated for the eighth edition include the relationship between lifestyle factors and cancer risk, the life cycle of HIV in human cells, the chain of infection, the greenhouse effect, the immune response, and the levels and effects of different sounds. These lively and abundant illustrations will particularly benefit those students who learn best from visual images. Taken together, all the visual elements of the book provide powerful pedagogical tools and create a colorful and inviting look.

Personal Insights are open-ended questions designed to encourage self-examination and heighten students' awareness of their feelings, values, beliefs, thought processes, and past experiences. These questions have been formulated in a nonjudgmental way to foster honest self-analysis. They appear at appropriate points throughout each chapter.

Take Action, appearing at the end of every chapter, suggests hands-on exercises and projects that students can undertake to extend and deepen their grasp of the material. Suggested projects include interviews, investigations of campus or community resources, and experimentation with some of the behavior change techniques suggested in the text. Special care has been taken to ensure that the projects are both feasible and worthwhile.

Journal Entry also appears at the end of each chapter. These entries suggest ways for students to use their Health Journal (which we recommend they keep while using *Core Concepts*) to think about topics and issues, explore and formulate their own views, and express their thoughts in written form. They are designed to help students deepen their understanding of their own health-related behaviors.

Making wise choices about health requires students to sort through and evaluate health information. To help students become skilled evaluators, each chapter contains at least one **Critical Thinking Journal Entry**. These entries help students develop their critical thinking skills, including finding relevant information, separating fact from opinion, recognizing faulty reasoning, evaluating information, and assessing the credibility of sources. Critical Thinking Journal Entry questions do not have right or wrong answers; rather, they ask students to analyze, evaluate, or take a stand on a particular issue.

The **Behavior Change Strategies** that conclude many chapters offer specific behavior management/modification plans relating to the chapter's topic. Based on the principles of behavior management that are carefully explained in Chapter 1, these strategies will help students change unhealthy or counterproductive behaviors.

Included are strategies for dealing with test anxiety, quitting smoking, developing responsible drinking habits, planning a personal exercise program, phasing in a healthier diet, and many other practical plans for change.

Three quick-reference appendixes provide students with resources they can keep and use for years to come:

- Appendix A, “Nutritional Content of Popular Items from Fast-Food Restaurants,” provides information on commonly ordered menu items at eight fast-food restaurants.
- Appendix B, “Self-Care Guide for Common Medical Problems,” provides information to help students manage common symptoms, including fever, sore throat, indigestion, headache, and cuts and scrapes.
- Appendix C, “Resources for Self-Care,” lists books, information centers, hotlines, and electronic sources of wellness-related materials. Guidelines for using the Internet—how to perform searches, how to evaluate online information, and how to use newsgroups, mailing lists, and chat rooms—are also provided.

“First Aid at a Glance” from the Red Cross appears inside the back cover of the text, providing information that can save lives.

LEARNING AIDS

Although all the features of *Core Concepts in Health* are designed to facilitate learning, several specific learning aids have also been incorporated in the text. **Learning objectives** appear on the opening page of each chapter, identifying major concepts and helping to guide students in their reading and review of the text. Important terms appear in boldface type in the text and are defined in a **running glossary**, helping students handle a large and complex new vocabulary.

Chapter summaries offer students a concise review and a way to make sure they have grasped the most important concepts in the chapter. Also found at the end of every chapter are **selected bibliographies** and sections called **For More Information**. New to the eighth edition, **For More Information** sections contain annotated lists of books, newsletters, hotlines, organizations, and Web sites that students can use to extend and broaden their knowledge or pursue subjects of interest to them. A complete **Index** at the end of the book includes references to glossary terms in boldface type.

TEACHING TOOLS

Available to qualified adopters of the eighth edition of *Core Concepts in Health* is a comprehensive package of supplementary materials that enhance teaching and

learning. Included in the package are the following items:

- Instructor's Resource Binder
- Students On Health: Custom Video to Accompany *Core Concepts in Health*
- Transparency Acetates
- Wellness Worksheets
- *Mayfield's Quick View Guide to the Internet for Students of Health and Physical Education*
- *Core Concepts in Health* Presentation Software
- Mayfield Wellness Software
- Student Study Guide
- Computerized Test Bank
- Additional Videos, Software, and Other Multimedia

The **Instructor's Resource Binder**, new for the eighth edition, contains a variety of helpful teaching materials in an easy-to-use form. Included in the binder are a comprehensive Instructor's Resource Guide, transparency masters and handouts, an extensive set of examination questions, Wellness Worksheets, a sample color transparency acetate, and complete descriptions and ordering information for special *Core Concepts* packages.

- The **Instructor's Resource Guide** provides a variety of supplementary materials that can be used to direct and facilitate students' learning: extended chapter outlines, learning objectives, classroom activities, additional resources, Internet resources, selected *Healthy People 2000* objectives, and health crossword puzzles.

- **Transparency masters and handouts**—90 in all—are provided as additional lecture resources. The transparency masters include tables, graphs, and key points from the text; illustrations of many body systems are also provided.

- The **examination questions** have been completely revised and updated for the eighth edition by Phyllis D. Murray at Eastern Kentucky University. The test bank contains nearly 3000 multiple choice and true-false questions. The answer key lists the page number in the text where each answer is found.

- The Instructor's Resource Binder also includes a complete set of **Wellness Worksheets**, a student learning aid described below.

Also new for the eighth edition is **Students On Health: Custom Video to Accompany *Core Concepts in Health***. Filmed exclusively for *Core Concepts* with students at college campuses across the country, this unique video is designed to stimulate critical thinking and class discussion. The 8–10 minute segments focus on key wellness concerns—stress, intimate relationships, alcohol, tobacco, nutrition, exercise, STDs, and personal safety. The accompanying Instructor's Video Guide provides summaries of each segment and discussion questions.

Sixty **transparency acetates**, half in color, provide material suitable for lecture and discussion. The acetates do not duplicate the transparency masters in the Instructor's Resource Binder, and many of them are from sources other than the text.

Wellness Worksheets help students become more involved in their own wellness and better prepared to implement successful behavior change programs. The 90 worksheets developed for the eighth edition include assessment tools that help students learn more about their wellness-related attitudes and behaviors, Internet activities that guide them in finding and using information from the World Wide Web, and knowledge-based reviews of key concepts. Wellness Worksheets are available in an easy-to-use pad (free when shrink-wrapped with the text) and are also found in the Study Guide.

New for the eighth edition is **Mayfield's Quick View Guide to the Internet for Students of Health and Physical Education** by Jennifer Campbell and Michael Keene at University of Tennessee, Knoxville. It provides step-by-step instructions on how to access the Internet and how to find and use information about health. It includes extensive lists of Internet resources for both students and instructors. The Quick View Guide also shows students how to evaluate the credibility of online information sources, communicate via e-mail and chat rooms, use listservs and newsgroups, find jobs through the Internet, and even create a Web page.

Also new for the eighth edition is the **Core Concepts in Health Presentation Software** package. This helpful lecture aid includes two components. The **CD-ROM Image Bank**, compatible with both IBM and Macintosh computers, contains over 150 images from the eighth edition as an additional lecture resource. The images can be used with LCD overhead projectors and can be imported into PowerPoint and other presentation software. The **PowerPoint Lecture Outlines** are electronic transparencies that can be customized to fit any lecture.

Easy-to-use **Mayfield Wellness Software** includes instructions and contracts for creating successful behavior change programs, as well as 15 interactive assessment activities. The assessments, which cover fitness, nutrition, stress, weight management, and cardiovascular health, help students pinpoint behaviors they can change to increase wellness. The software is available in both Windows and Macintosh formats and can be networked (free to qualified adopters).

The **Student Study Guide**, prepared by Thomas M. Davis of the University of Northern Iowa, is designed to help students understand and assimilate the material in the text. The Study Guide includes learning objectives, key terms, major points and issues, sample test questions, and the complete set of Wellness Worksheets.

A **computerized test bank** is available to qualified adopters. Microtest III, developed by Chariot Software

Group, allows instructors to design tests using the examination questions included with *Core Concepts in Health* and/or to incorporate their own questions. Microtest is available in both Windows and Macintosh formats.

Additional videos, software, and other multimedia—including nutrition, fitness, and health risk appraisal software—are available to qualified adopters. The **Mayfield video library** includes tapes on topics such as stress, intimate relationships, alcohol use, AIDS, nutrition, violence, fitness, and many more. **DINE Healthy software** provides an easy way for students to evaluate the nutritional value of their current diet; it also includes an exercise section that allows students to track their energy expenditures. The **Healthier People Network Health Risk Appraisal** is a self-assessment tool that alerts students to their personal risk areas and advises them on how to improve their risk profile.

If you have any questions concerning the book or teaching package, please call your local Mayfield sales representative or the Marketing and Sales Department at 800-433-1279. You may also reach Mayfield at profservices@mayfieldpub.com.

A NOTE OF THANKS

The efforts of innumerable people have gone into producing this eighth edition of *Core Concepts in Health*. The book has benefited immensely from their thoughtful commentaries, expert knowledge and opinions, and many helpful suggestions. We are deeply grateful for their participation in the project.

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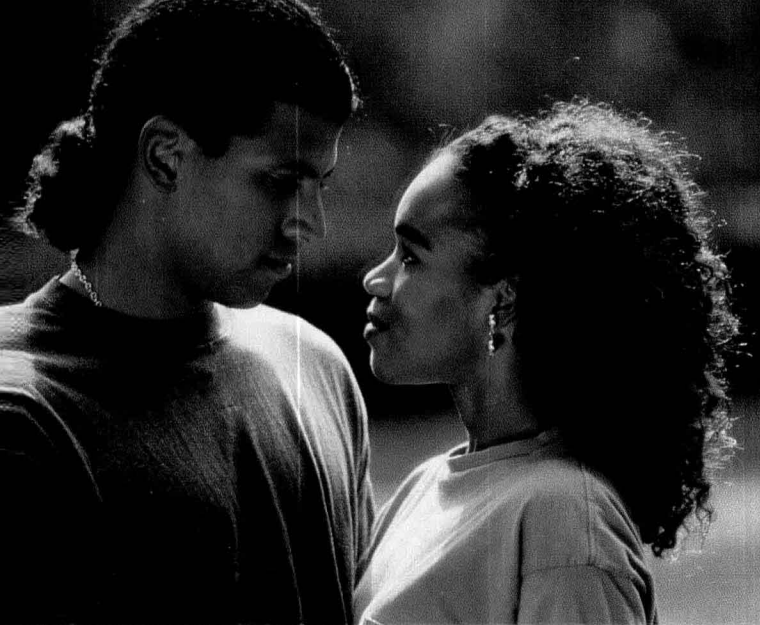
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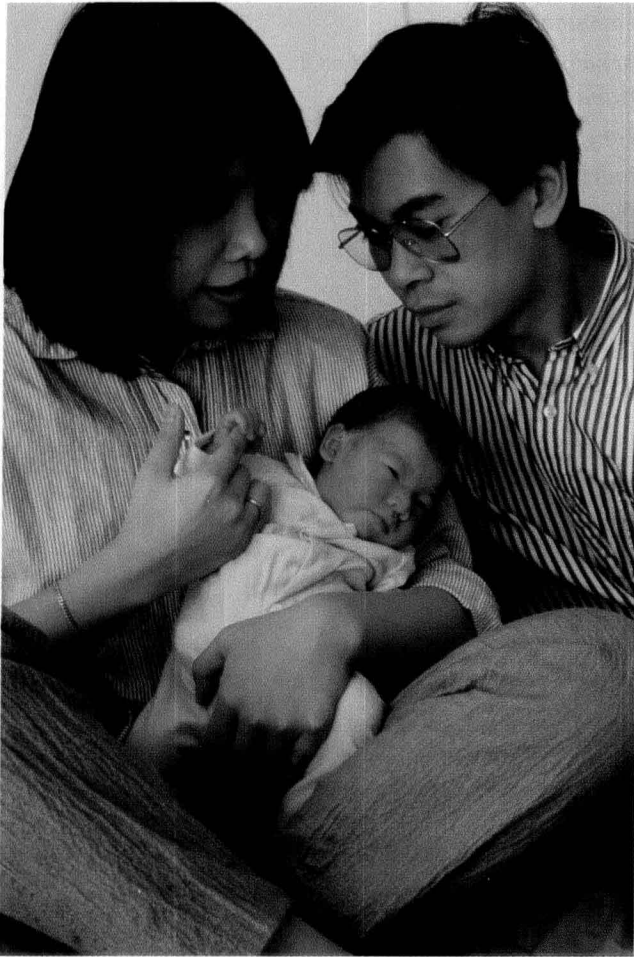
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