

How To Use This Book

Chapter Organization

Information on individual vitamins, organic (carbon-containing) compounds that are required by humans in small amounts from the diet to maintain normal physiological function, can be found in Chapters 1 through 13, in alphabetical order by vitamin. In addition to vitamins, a number of inorganic elements (minerals) are required in the human diet to support a wide range of biological functions. Information on nutritionally important minerals can be found in Chapters 14 through 27, in alphabetical order by mineral. For ease of use, the information in each chapter is organized in the following manner:

- **Function** Current scientific understanding of the function of the micronutrient with respect to maintaining health and preventing disease.
- **Deficiency** Risk factors, signs, symptoms, and physiological effects of frank deficiency of the micronutrient.
- **Disease Prevention** Where controlled research is available, information on the role(s) of the micronutrient in the prevention of disease.
- **Disease Treatment** Where controlled research is available, information on the role(s) of the micronutrient in the treatment of disease.
- **Sources** Information on dietary, supplemental, and other sources of the micronutrient. When available, this section includes a table of dietary sources.
- **Safety** Information on toxicity and adverse effects of the micronutrient, as well as micronutrient–drug interactions.
- **The Linus Pauling Institute Recommendation** A daily intake recommendation based on relevant scientific research and reflecting an intake level aimed at the prevention of chronic disease and the promotion of optimum health in generally healthy individuals. Recommendations for older adults (over the age of 50 years) are also addressed in this section.

• References

In addition to the Linus Pauling Institute Recommendations, the Food and Nutrition Board (FNB) of the Institute of Medicine appoints committees of expert scientists to set Dietary Reference Intakes (DRIs), which are used to plan and evaluate diets of apparently healthy people. Three different DRIs appear regularly throughout this book:

- The *Recommended Dietary Allowance* (RDA) is defined as the average daily dietary intake level of a specific nutrient sufficient to meet the requirement of nearly all (97%–98%) healthy individuals in a particular life-stage group. Because RDAs generally reflect intake levels designed to prevent deficiency, they are presented in the **Deficiency** section of each chapter.
- An *Adequate Intake* (AI) is provided if there is insufficient evidence to determine an RDA. The AI is based on experimentally derived intake levels or observed average intake levels of apparently healthy people. For example, the AI of a nutrient for infants is generally based on the average daily intake of that nutrient supplied by human milk in healthy, full-term infants who are exclusively breastfed. Because AIs reflect intake levels thought to prevent deficiency, they are also presented in the **Deficiency** section of each chapter.
- The *Tolerable Upper Intake Level* (UL) is defined as the highest level of a nutrient determined to pose no risk of adverse effects for almost all individuals in the general population. The UL is discussed in the **Safety** section of each chapter.

Appendices

Several appendices have been included to facilitate the use of this book by clinicians as well as consumers.

- **Nutrient—Nutrient Interactions** A table summarizing the information on nutrient—nutrient interactions discussed in the book.
- **Drug—Nutrient Interactions** A table summarizing the information on nutrient—drug interactions discussed in the book.
- **Quick Reference to Diseases** A useful chart that allows the reader to locate micronutrient information by disease or health condition.
- **Glossary**
- **The Linus Pauling Institute Prescription for Health** A list summarizing the Linus Pauling Institute Recommendations for a healthy diet, lifestyle, and supplement use.