

# Reviews of Recent Books

**The Vitamins: Chemistry, Physiology & Pathology, Vol. I**, edited by W. H. Sebrell, Jr., and Robert S. Harris, Academic Press Inc., New York, 1954, pp. 676, \$16.50.

The amazing growth of basic scientific knowledge in the broad field of nutrition, and its practical application over the past quarter of a century, are based on a voluminous and widely scattered literature which is difficult for anyone but an expert to evaluate. Knowledge has crystallized enough to warrant a critical and detailed appraisal of this important field. This has been effectively accomplished by the editors with the help of some twenty contributors, each an authority in some aspect of the subject.

The first volume of this work brings together an enormous body of information. It serves as a guide to areas of knowledge which are still new and complicated for many.

The reviewer was impressed with the easy readability and the good organization of this book. Each section is discussed by an expert in the field of chemistry, industrial production, biochemistry, pharmacology, estimation, occurrence, deficiency effects, and general requirements. Although the individual sections are particularly strong on chemistry and physiology, there is also an excellent discussion of the practical clinical aspects of each deficiency state. This volume deals with vitamin A and carotene, ascorbic acid, vitamin B<sub>12</sub>, and biotin.

The value of the book is enhanced by its broad reference to all branches of the sciences represented, and it is not limited to the clinical aspects. It correlates available information as to the part vitamins play in the metabolism of the human organism.

This volume can be highly recommended and is certain to be a much consulted reference source. It contains a tremendous amount of scientific material which is concisely presented, clearly and accurately indexed, and extensively documented.

HAROLD JEGHERS

**Sodium-Restricted Diets. The Rationale, Complications, and Practical Aspects of their Use**, by a Committee of the Food and Nutrition Board, National Research Council, Publication 325, July 1954, pp. 71, \$1.00.

Because of the importance of sodium restriction in medicine, the Food and Nutrition Board of the

National Research Council appointed a subcommittee to review and summarize the clinical and dietary conditions for sodium-restricted diets.

This short but excellent report should be read by all whose interest brings them into contact with sodium metabolism. Normal physiology, dietotherapy, indications and contraindications are well covered. There are also useful chapters on planning sodium-restricted diets and on salt substitutes. The entire report is clear, succinct, authoritative, and practical.

Much of this material appeared in the *J. A. M. A.* in November 1954. Now, conveniently published as a separate monograph, it will be read profitably by clinicians, nutritionists, and dietitians. S.O.W.

**Diet Manual of the Jewish Hospital of Brooklyn**, edited by Charles Solomon, M.D., Nanette D. Robertson, M.A., and Mariam C. Tekulsky, B.S., Brooklyn, 1954, pp. 87.

This manual represents a distillation of dietary information and menus used in hospitals in general, and in the Jewish Hospital of Brooklyn in particular. In view of the limited space at their disposal, the authors have succeeded admirably.

The manual contains "routine" hospital diets, post-operative diets; high vitamin diet; low and high calorie diets; diabetic diets; sodium-restricted diets; low fat and low cholesterol diet; high and low protein diets; low purine diet, acidogenic diet, alkalino-genic diet; low potassium diet; high iron diet; diets in allergy; and diets used in pediatrics and obstetrics.

It is a pity that this manual could not have presented a few kosher diets designed for the orthodox Jewish patient. These would have added considerably to the usefulness of the volume. After all, the impact of eating "trefo" (non-kosher food) on the psyche of the orthodox Jewish patient must be considerable, and this may detract from the rapid recovery from illness. M.G.W.

**The Biochemistry of the Nucleic Acids** (second edition), by J. N. Davidson, John Wiley & Sons, Inc., New York, 1954, pp. 200, plates 4, \$2.25.

This little book is the busy scientist's guide to the important but formidable field of the nucleic acids. About half of it describes the products of the degradation of nucleic acids, and the structure and

properties of polynucleotides. The remainder deals with nucleic acids in the cell, their metabolism and biological activity. The skill with which the important and interesting aspects were presented made the first edition a great success. The inclusion of much new work, some of it as recent as 1953, makes the new edition even more useful. J.G.R.

**Practical Chromatography**, by R. C. Brimley and F. C. Barrett, Reinhold Publishing Co., New York, 1953, pp. 128, \$5.00.

Apparatus, methods, and applications of chromatography on paper and on columns by means of adsorption, partition, and ion exchange are described in this handbook by two chemists of the Low Temperature Station at Cambridge. The authors draw upon a considerable experience to describe their techniques, including many details and a number of tricks that may make the difference between sharp and unsharp separations. The approach is mainly practical, and the reviewer, whose experience with chromatography is not extensive, has obtained valuable help from it in study of a variety of biological materials. An appendix describes solvent mixtures, sprays, and  $R_f$  values. JOHN G. REINHOLD

**Kwashiorkor**, by H. C. Trowell, J. N. P. Davies, and R. F. A. Dean, Edward Arnold (Publishers) Ltd., London, 1954, pp. 308, \$10.00.

In the underdeveloped countries of the tropical belt protein malnutrition is very widespread in children after the weaning period. In its tropical form, it has only recently been recognized by organized scientific medicine. Its designation as kwashiorkor, originally introduced in the medical literature by Cicely Williams, is very old, having been in common use among one African tribe for as long as tradition and memory serve. The authors of the present monograph are eminently qualified to treat the subject from personal experience and from all possible angles, Trowell being the clinician with long experience in the field, Davies a prominent pathologist, and Dean the nutritionist with excellent pediatric experience and biochemical training. The book is divided in several sections. The chapter of Trowell on the history of kwashiorkor represents an excellent and detailed review of all relevant publications for all corners of the earth. In addition to the clinical picture, pathology, biochemistry, prevention and treatment of kwashiorkor in infants and children, a special chapter describes what is believed to be protein malnutrition in adults. The clinical pictures in adults and children are similar and so are the pathological changes, but the authors concede that further work might disclose clear differences. The book closes with a chapter devoted to some of the possible implications of the problem of protein malnutrition in children and adults. With good logic and in the light of impressive circumstan-

tial evidence, the authors discuss the possibility that "acute Kwashiorkor in childhood is but the advanced stage of a common variety of protein malnutrition from which many children suffer mildly during their early period of growth. Many adults in the tropics live, like the children, on diets which provide very little protein. It may be that the investigation of the effects of protein malnutrition will throw light on many facts which at present lack explanation, such as the curious frequency of certain diseases among African adults and the variety of others."

This and similar interpretations of factual information add greatly to the value of the monograph, not only for research workers actively engaged in the specific problem of kwashiorkor, but also for those with wider horizons, in particular for clinicians with interest in geographical pathology, for all nutritional research workers, for biochemists, and, to some extent, for everybody who appreciates the world-wide implications of malnutrition, population pressure, cultural anthropology, and world economy.

A large number of well reproduced illustrations adds to the value of this excellent book.

PAUL GYÖRGY

**Tea—A Symposium on the Pharmacology and the Physiologic and Psychologic Effects of Tea**, edited by H. J. Klaunberg. The Biological Sciences Foundation, Ltd., Washington 7, D. C., 1955, pp. 64, \$1.00.

A symposium on the pharmacologic, physiologic, psychologic, and clinical aspects of tea was recently held at the New York Academy of Sciences. This little booklet contains six papers presented at the meeting and a reprinting of two significant articles on the same subject.

As pointed out by the various authoritative contributors, it is striking that there has been little organization of research and literature on this ancient and widely used household beverage. With essentially no medical contraindications, and by virtue of palatability, ease of preparation, and low cost, tea certainly merits even more recognition than it now enjoys.

This booklet summarizes concisely and attractively the essential facts about the pharmacology (of caffeine and tannins), nutritional aspects, medical uses, and psychological effects of tea. It will be of unusual interest to all who are professionally concerned with human nutrition and physical fitness. A.E.S.

**Methods for Evaluation of Nutritional Adequacy and Status**, published by the Advisory Board on Quartermaster Research and Development, 1954, Washington, D. C., pp. 313. Copies available from Quartermaster Food and Container Institute for the Armed Forces, Chicago 9, Ill.

In 1954 a symposium was arranged under the joint sponsorship of the Medical Nutrition Laboratory, Office of the Surgeon General, Department of the



Army, and the Nutrition Division of the Quartermaster Food and Container Institute for the Armed Forces. A group of national authorities discussed methods of evaluation of nutritional adequacy and nutritional status. This paper-covered book contains the proceedings—the papers and the following discussions—of this fine meeting.

As an indication of the caliber of the presentations, we may note papers by such investigators as King, Mitchell, Cannon, Allison, Bessey, Goldsmith, Darby, Snell, Wintrobe, Brožek, Elvehjem, Maynard, Sebrell, Jolliffe, and Grossman, and discussions by Kark, Youmans, and Horwitt, to mention only a few. The subjects range from rat repletion methods for the evaluation of protein adequacy to blood levels as indicators of vitamin adequacy. Nutritional status of populations by survey methods, physical performance, and body composition are among the several topics on the agenda.

Because of the significance of the subject, the importance of the observations discussed, and the stature of the participants, this book is of considerable value to all interested in the field of nutrition. S. O. W.

**From the Workshop of Discoveries**, by Otto Loewi, University of Kansas Press, Lawrence, 1953, pp. 58, \$2.00.

In three short but charming essays, Otto Loewi shares much of his mature reflection on the study of medicine, the ways in which medical discoveries are made, and problems of adrenal function. All physicians will enjoy these simply written but deeply

penetrating analyses of important facets of medicine. There is a great need for more "lectures" of this type, but we are indeed grateful for these thoughts of a wise and humane scientist. S.O.W.

Books received for review by the *American Journal of Clinical Nutrition* are acknowledged in this column. As far as practicable, those of special interest are selected, as space permits, for a more extensive review.

*The Low Sodium Cook Book* (Sunkist Growers spec. ed.), by A. P. Smith and D. Callahan, Little, Brown and Company, Boston, 1953, pp. 477.

*Ion Exchange and Adsorption Agents in Medicine*, by G. J. Martin, Little, Brown and Company, Boston, 1955, pp. 333, \$7.50.

*Les Gastrites*, by F. Moutier and A. Cornet, Masson et C<sup>ie</sup>, Paris, 1955, pp. 404, bound 4.400 fr., paper 3.800 fr.

*Antibiotics Annual 1954-1955*, edited by H. Welch and F. Martí-Ibañez, Medical Encyclopedia, Inc., New York, 1955, pp. 1154.

*Medical Progress*, edited by M. Fishbein, McGraw-Hill Book Company, Inc. (Blakiston Division), New York, 1955, pp. 346, \$5.00.

*Methods for Evaluation of Nutritional Adequacy and Status*, by H. Spector and M. S. Peterson, Quartermaster Food and Container Institute for the Armed Forces, pp. 313, 1954.

*The Care of Your Skin*, by H. Lawrence, Little, Brown and Company, Boston, 1955, pp. 95, \$2.50.

