

of all countries on all aspects of nutrition, have recently appeared. In both of them commendably high standards of scientific merit and literary clarity have been achieved.

In volume 19 S. M. Pereira and Almas Begum state that kwashiorkor afflicts the children in depressed economic groups no less in India than in Africa. Indian children, moreover, show a much higher incidence of superimposed vitamin A deficiency, with the consequent danger of loss of sight. Barbara A. Underwood deals with the distribution, mobilization, and transport of vitamin A in both health and disease and in developed and backward countries. J. Adrian describes how the Maillard reaction can take place between reducing sugars and proteins during the prolonged storage or drastic heating of foods with the amino-acid lysine particularly vulnerable. It seems rather disconcerting that Maillard changes can not only adversely affect the nutritive value of cooked food, but sometimes can, nevertheless, greatly improve its flavour. Other articles deal respectively with iron absorption, nutrition after injury, nutrition and intellectual performance, and the physiological effects of antioxidant food additives.

In a comprehensive review in volume 20, documented by about 400 references, A. D. Kenny and C. G. Dacke discuss the parathyroid hormone and calcium metabolism. There is now strong evidence that the hormone controls the action of the kidneys in converting 25, hydroxycholecalciferol, the first metabolic product of vitamin D, into 1,25, dihydroxycholecalciferol, which appears to be the vitamin's final and most biologically active form. Milk proteins, both from biochemical and biological aspects, are the subject of a highly informative article by C. Alais and B. Blanc, again with 400 references. S. G. Srikantia reviews the global incidence of human vitamin A deficiency and reports on the relative prophylactic merits of single massive dosing with retinol and selective food fortification. Other reviews deal with the influence of nutrition on socioeconomic development, trends in nutritional education, thiamin deficiency in tropical and non-tropical livestock, and the possible significance of certain trace elements in relation to human atherosclerosis and hypertension.

The publications in this series can help substantially to keep everyone interested in nutrition well abreast of recent progress. How individual nutritionists, or even libraries, can also keep abreast of their high cost is problematical.

T. MOORE

Nutrition, Growth and Development

Modern Problems in Paediatrics Vol. 14. Ed. Cipriano A. Canosa. (Pp. 272; £14.30.) Karger. 1975.

This volume consists of a series of 26 papers given by experts of diverse scientific background at the International Symposium on Nutrition, Growth, and Development held in Valencia in May 1973. Malnutrition includes both overnutrition as well as undernutrition, and particular emphasis is placed on the need for the child to be able to attain his full potential, both mentally and physically.

The epidemiology of malnutrition is discussed particularly in relation to the U.S.A., Spain, Italy, and Mexico, and the importance of education in nutrition is stressed. Considerable emphasis is placed on nutrition in relation to the developing nervous system. In a chapter by J. Dobbins this problem is looked at in a critical way, and both the importance and pitfalls of animal experiments are discussed. Other excellent chapters on the nervous system are contributed by M. Winick, G. McKhann, and E. Widdowson. Other topics include the perinatal adaptation to carbohydrates, the effects of nutrition on physical growth and bone development, the laboratory assessment of protein-energy malnutrition, and the total parenteral nutrition of infants.

Despite the two years' delay in publication I recommend this book to paediatricians. The chapters are frequently rather general in nature, clearly written, easy to read, and do not presume that the reader has a specialized knowledge of the subject. The book is expensive but should be available in libraries used by paediatricians, who would not, I think, wish to purchase the volume themselves. Some of the chapters include useful lists of references, but it is a pity that there is no index.

B. E. CLAYTON

Pica, a Childhood Symptom

IRMMH Monograph No. 3. D. Joan Bicknell, M.D. (Pp. 191; £3.65.) Butterworths. 1975.

This is an investigation of pica and was sponsored by the Institute of Research into Mental and Multiple Handicap. A good review of the literature is followed by a comparative study of pica in several retarded children in hospital and at home, a study of pica in a home for serious social problems, and a longitudinal study of 15 children referred for pica. Correlates in the severely retarded children were low mental age, other handicap, and pre-existing and associated behaviour problems, with inadequate stimulation as a factor. Lead poisoning was an important result of pica and it further damaged the brain, but it was not lead poisoning which caused the original brain damage. Pica was not a feature of children from deprived homes with poverty and poor parental supervision. It was commoner in severely retarded children in hospital than in children at home—a disparity reflecting perhaps the greater degree of handicap in those in hospital or the child's experiences before or after admission. The author emphasizes that pica is not confined to the retarded, but occurs in normal children. The habit of chewing objects in times of stress may continue after the pica has ceased. The pica usually resolves when the environmental stresses have been modified. Speech defect was one of the causes of stress in four cases. Iron deficiency was not found to be a cause of pica, and iron played little or no part in the treatment. But the need for further research into the association of pica with iron deficiency was noted.

This is a well written, careful study. There is a useful section on conclusions at the end of each chapter, with a summary. The text proper consists of 94 pages, and

the appendix covers a further 85 pages. It is an expensive book for what it contains. The subject could have been well covered without significant omissions in one paper in a medical journal.

R. S. ILLINGWORTH

SHORTER NOTICES

Though he made many remarkable discoveries about early man in East Africa, L. S. B. Leakey never felt that he received his due from the scientific establishment. His work made a fundamental contribution to palaeontology and anthropology, but to his chagrin he was never elected F.R.S. despite several attempts. Now in a biography by Sonia Cole entitled *Leakey's Luck* (pp. 448, £5.50), published by Collins, the reader gets a clear idea of both sides of the story. Louis Leakey was born of missionary parents in Kenya in 1903 and after interrupted schooling reached Cambridge, where he showed his academic capacity by getting a double first. Thereafter he devoted virtually his whole life to discovering traces of early man, pursuing the hunt through living primates as well as through his main occupation, the study of fossils in East Africa. With his great drive and dedication to the job and his indifference to the comforts of life in remote, arid, windswept places he had many of the characteristics of an explorer. Yet in contrast Louis Leakey had an intensely human side, was an inspiring lecturer cheered by audiences of a thousand or more, helped innumerable young people in scientific projects, enjoyed the confidence of the Kikuyu, and loyally served Kenya in many ways to the end of his life in 1972. Intuitive and imaginative, he was apt to make rash generalizations. More than once he damaged his scientific reputation by leaping out of the accepted channels, though it is still too early to say in some cases whether he or his critics will be proved right. The author of this book knew Leakey well and is a trained geologist. As well as being equipped in this way to write it she presents a very fair account of his life, depicting the emotional and scientific storms in perspective and presenting a most readable portrait of a complex personality.

A recent book on bicycling is worth noting in these columns because in some respects it is a model of preventive medicine. Richard Ballantine, the author of *Richard's Bicycle Book* (pp. 335; £1.25), published by Pan Books, gives excellent advice on the safe riding of bicycles for children as well as adults, in towns and in country roads, in clear air and in the carbon monoxide of heavy traffic. He is up to date in his reading of the *B.M.J.*, which he cites, and forthright in his utterance. As well as teaching the art of safe bicycling he gives clear instructions on the choice and maintenance of bikes. Some non-bicycling doctors may succumb to Mr. Ballantine's enthusiasm for the joys of this inoffensive form of travel. Certainly they may recommend his book to their children or their patients with confidence.