the subject from foetal life to adolescence and is packed with an enormous amount of factual information. There is a plethora of data, discovered by the most sophisticated techniques, and it is intriguing here to come across Pirquet's observation that, throughout childhood, if the heart rate is counted for as many seconds as the child's sitting height in centimetres, the result will be 100. This reviewer is still mystified by the significance of this information.

The chapters on hepatic and renal physiology are concise, clear, and uncluttered. In particular the accounts of bilirubin metabolism and renal tubular function are impressive. Similarly the pages dealing with electrolyte balance and homeostasis are outstanding both in their clarity and brevity. Lastly, the section dealing with immunity makes a complicated subject as lucid as any the reviewer has come across.

The chapters on growth and those on the blood are also good. Those on digestion are adequate but not outstanding. Several statements might be questioned, such as 'the experience of decades has shown the need to offer bottle-fed infants a low-fat milk' (p. 196) and 'the central nervous system of the newborn appears to be insensitive to hypoglycaemia' (p. 208).

The part dealing with the physiology of respiration is seriously inadequate. Recent research into respiratory adaptation of the newborn and the prematurely born infant, surely one of the most pressing paediatric problems today, is yet barely touched upon (p. 85). The section on endocrinology is only just adequate, the account of adrenocortical function having been seriously skimped—vide the vestigial reference to aldosterone function and dysfunction.

Conversely, the editor seems to have allowed Prof. Rodeck too much space for his account of the hypothalamic-hypophyseal regulation of body water. This chapter is far too advanced for a book that claims to be an introduction to the developmental physiology of the child.

Perhaps more serious is the lack of balance in the account of child neurology. It is crammed with neurophysiological and anatomical facts, yet no clear picture of the evolution of cerebral function emerges, and several statements are either vague or misleading.

No reference is made to the work of André-Thomas or Yves Chesnoin. The contrast between this worthy but plodding presentation and the elegant descriptions by Dutch and French workers is illuminating.

Finally, what a pity there is no separate chapter on placental function. References to the organ are scattered throughout the book, though only a few appear in the index.

One hopes that these shortcomings will be remedied in the next edition, for there should be a next edition, since this book could be, and up to a point is, an important contribution to paediatric literature.

Needless to say the volume is beautifully bound, beautifully arranged, and printed as are almost all publications bearing the Springer Verlag imprint. The graphs, drawings, photographs, and tables are admirably clear, and errors in the bibliographical reference numbers and the index are rare.


The many who know Dr. Avery's published work or have heard her lecture will expect great things from this book and in general they will not be disappointed. She is able to bring two important faculties to bear. First, she moves with equal assurance in both the clinical and physiological fields, and therefore naturally describes clinical phenomena in terms of the underlying physiology. Secondly, her approach is a properly critical one, so that she is not tempted to go further in theorizing than the established facts allow. This is particularly valuable in subjects like the cause and the treatment of hyaline membrane disease, where her approach is in marked contrast to that of many who, in the past, have been prepared to erect imposing (but wrong) theories upon inadequate facts.

As would be expected, the physiological sections are excellent, particularly those concerned with the properties of excised lungs, a subject that Dr. Avery has herself pursued with such interesting results. There are, however, one or two important subjects that are rather surprisingly hardly touched on. The oxygen situation of the baby at birth and during the ensuing minutes and hours is one such. Again, though the morphology of the lung of the foetus is well described, the O₂-CO₂ status of the human foetus is not. It is no longer true to say that, 'the degree of oxygenation of the human fetus in utero is not known'. In view of the accumulated observations by Salting in Berlin, which have shown how neonatal respiratory problems are often only to be understood if viewed as a continuance of a prenatal state.

The author's style is clear and concise and in 200 pages she is able to give an account of even the rarer lung conditions, which the clinician with an urgent problem on his hands would otherwise be hard put to find described. The illustrations and diagrams succeed in showing what they are intended to. The list of some 600 references includes almost all the important papers on the subject, and will be one of the most useful parts of the book.

The format is agreeable.

Without doubt the possession of this book will be a sine qua non for anyone concerned with looking after newborn babies, and indeed this reviewer knows few better ways for a paediatrician to spend £2 12s. 6d. than to buy a copy.


This large volume contains an immense amount of valuable material not all of which is essential to those practising nursing care of children. An introductory chapter deals with modern concepts and refers to the disadvantage to senior nurses of physical separation from their patients. Is the ultimate disadvantage to the patient