

VITAMIN C, THE COMMON COLD, AND THE FLU

Linus Pauling

W. H. Freeman, Reading (1977)

230 pages. Price £2.60

Oh no, I groaned; why does the Editor always send me such boring books? Why couldn't I have something useful, like a new edition of a giant textbook? Here I was having to write an unfavourable review of a book that I could easily prejudge. After all, everyone knows that much excellent research has proved vitamin C to be useless in preventing colds and that even if you do take the number of grammes a day that the food faddists recommend, 99 per cent of it comes straight out in the urine.

It is with great pleasure, therefore, that I now offer an unreserved recantation. No other book that I can remember has so changed my ideas, especially ideas that were so preconceived and fixed. Here, at a small price, beautifully written and stunningly argued, is everything you always wanted to know about vitamin C and the common cold.

The argument goes like this: vitamin C is not only a powerful antiviral and antibacterial harmless substance but also one with a wide range of activities to do with collagen synthesis, lymphocyte production and resistance to stress; the orthodox estimate of man's daily needs is far too low and should be 250 mg to 10 g or even more.

Here are some of the answers which Pauling provides to the questions which readers are bound to raise.

Q. Why is the daily requirement so high?

A. Because this amount prevents and cures a wide range of diseases. Pauling provides evidence of this claim, dismantles much poor research and restores some good work which has been wrongly criticized.

Q. If this large amount prevents and cures so many diseases, why does our diet not provide it, since it is a nutritional axiom that a well-balanced diet will provide all our daily vitamin intake without supplementation?

A. The author shows, with breathtaking clarity, that a natural raw food diet of 2,500 KCal will provide three times the daily allowance of all the vitamins usually recommended, but for vitamin C about 50 times the allowance, or 2 to 3 g. This is the kind of diet man ate when he evolved—green leaves, fruit and a little meat.

A nice extension of the argument shows that the animal species which can synthesize their own ascorbic acid—and this means the entire animal kingdom

except for primates, guinea-pigs, red-vented bulbuls, and certain Indian fruit-eating bats—do so at a daily rate of about 10 g per 70 Kg of body weight. "It is hard to believe that these animals would make this large amount of ascorbic acid if it were not beneficial to them, and also hard to believe that man is so much different from other animals that he can keep in the best of health with only one two-hundredth of the amounts that they use." What seems to have misled nutritionists is the fact that the most obvious, but only one of many, signs of vitamin C deficiency—scurvy—can be prevented by a mere 10 mg of the substance per day.

Q. Aren't these large doses toxic? What about the kidney stones that are supposed to form?

A. No case has ever been reported of a person who has formed kidney stones because of a large intake of vitamin C. A tiny minority of people with genetic abnormalities must limit their intake of vitamin C, as they should also of spinach and rhubarb. No other adverse effect of vitamin C can be substantiated.

Q. Is not nearly all of a large dose immediately excreted in the urine?

A. Only about 20 to 25 per cent (there is genetic variation) of a 1 g dose appears in the urine within six hours of ingestion.

Q. What about the studies critical of vitamin C, such as the Common Cold Research Unit study in 1967, which concluded that 3 g daily was ineffective in curing colds?

A. The author criticizes the methodology of this paper severely and convincingly, and rebuts it with many other studies showing a contrary effect. His main point is that the ascorbic acid was stopped three days after the cold appeared; because enzymes are induced by high doses of ascorbic acid, stopping the vitamin will make an ordinary dietary intake give only very low plasma levels, and hence lower resistance to the cold causing it to become worse.

There are two final reasons why many people must be sceptical of Pauling's work. There is something inherently unlikely in a theory which holds that one simple, cheap, natural substance can do so much in so many illnesses.

This improbability is like the suspicions one has of those quack cures that claim to be equally effective rubbed on the skin, inhaled in steam, or taken as drops in a little white wine. There is also something undignified about the spectacle of one of this century's most distinguished scientists and humanists going overboard about this panacea.

The answers to these criticisms lie in this carefully argued, highly scientific book, which contains no sensationalism

and makes no statements that are not backed by good evidence.

Buy it, read it, and badger your local public library into putting it onto its shelves. It will have much more influence on your practice of medicine than the latest edition of a giant textbook.

S. L. BARLEY

ARTIFICIAL INSEMINATION

Proceedings of the Fourth Study Group of the Royal College of Obstetricians and Gynaecologists

RCOG, London

£2.50 plus postage

This collection of papers presented at the Royal College of Obstetricians and Gynaecologists last autumn includes a record of the ensuing discussion and presents a fascinating review of the animal and human biology of artificial insemination. Any practitioner faced with the task of advising an infertile couple will find it a source of useful information, especially the sections on the counselling of recipients and the legal and ethical problems.

H. W. K. ACHESON

WORK STUDY OF DISTRICT NURSING STAFF

Scottish Health Service Studies No. 37 SHHD

Jean B. McIntosh and I. M. Richardson

Scottish Home and Health Department, Edinburgh (1976)

Price 70p

It is always a pleasant task to review a research report which substantiates personal beliefs and prejudices. Having worked in general practice with district and community nurses and midwives for nearly 20 years, it is my conviction that the technical procedures carried out by a visiting nurse are the method of entry to a good nurse-patient relationship, analagous in many ways to the doctor-patient relationship; that to a good nurse each patient is an individual with individual needs (not just 'another bed-bath'); and that accurate assessment by a nurse on a routine visit both of the clinical state and personal needs of a patient are one of the most valuable aids a general practitioner can have.

These beliefs have been made almost respectable by the time study of a district nurse's work reported here by

Dr Jean McIntosh and Professor Ian Richardson.

An observer with a stop-watch and a check-list accompanied 30 community nurses on 1,961 home visits and 168 patient contacts in the surgery. She analysed the time taken and content of each consultation and procedure.

The results are fascinating: from Table 1 which shows that of the 24.7 minutes taken by an 'average' visit, only 8.4 minutes are occupied by nursing care, to the discussion of the topics of conversation between patient and nurse.

For most general practitioners this study will be illuminating and will broaden their view of the capabilities of their attached nurses. For nursing officers and administrators it should be required reading.

R. V. H. JONES

RESIDENTIAL HOMES FOR THE ELDERLY. ARRANGEMENTS FOR HEALTH CARE

Department of Health and Social Security, London (1977)

18 pages

Care of the elderly in residential homes is one of the 'grey areas' in the provision of services. Many general practitioners would agree that there is a greater degree of dependence and frailty in present-day residents than there was ten years ago. This may be due to the increasing number of frail old people in the community whose admission to residential accommodation receives priority over social admissions of their more fit contemporaries, but it is more likely to be due to the pressure on hospital beds forcing dependent patients back into residential homes when a few years ago they would have been kept in hospital.

The memorandum defines the care provided in residential homes as that which might be provided by a competent and caring relative, but of course in many homes it is a great deal more than that. It stresses the importance of encouraging independence and activity. This is perhaps the most important statement in the booklet because too often dependence is created in the residents.

There will be general agreement about the policy statement on the freedom of

choice of doctor, although there are advantages in having a doctor who is interested in geriatric medicine in charge of care. The section on consultations and records stresses the need to keep careful records, which is important when more than one person is involved in care.

The problems of incontinence are dealt with in a practical way. The problems of the mentally infirm, however, are given only a brief mention, despite the fact that dementia can be most disruptive in an establishment. No attempt is made to discuss whether there should be separate homes for the mentally infirm, nor is there any discussion of whether there should be segregation, especially at meal times, of a demented resident with unacceptable social habits.

The thorny subject of transfer between hospital and residential homes is discussed in a sensible way, although not enough importance is given to the crucial role of the geriatrician in these exchanges.

The annex on custody and administration of medicines is detailed and practical.

The memorandum is written in a clear, direct style, although a predilection for the use of abbreviations gives it the flavour of officialdom. It can be recommended as a brief but useful guide to care in residential homes.

AUSTEN ELLIOTT

BREAST FEEDING

Department of Health and Social Security

Newman Scientific, London (1976)
280 pages

The campaigning zeal of the breast-feeding lobby almost surpasses that of the antismoking lobby. No doubt its protagonists believe that their cause should have almost as few exceptions as that of the nicotine knockers.

A one-day conference on breast feeding was organized in London in July 1975 by the Department of Health and Social Security, following its publication the year before of the report *Present Day Practice in Infant Feeding*. The papers given, plus two others to round off the subject, are now published in booklet form as a symposium

issue of the *Journal of Human Nutrition*. In 58 pages the subject is dealt with by 13 contributions from as many different points of view, ranging from physiological, through social, practical, educational, and experimental.

Most of the papers are of interest to the family doctor. I would commend particularly the one by Elizabeth Tylden on "Psychological and Social Considerations". She dispels a number of myths such as that breast feeding will spoil the figure and that breast feeding is instinctive. The corollary of this is that doctors and midwives need much more education about this topic. Dr Tylden also stresses the potentially damaging effects of separation of mother and baby in the first few hours after birth. Dr Lotte Newman's paper on "Breast Feeding as seen in General Medical Practice" is also of value for its pragmatic and imaginative approach.

Inevitably with so many contributors from different disciplines the same message is sometimes repeated. However, the value of the collection is enhanced by this wide variety of contributors. Arguments in favour of breast feeding are deployed from many different angles and are set alongside the reasons, some logical some emotional, why such arguments may be rejected. Whilst it would not be true to say that no general practitioner's library could be complete without it, this booklet deserves much more than a cursory glance.

ROLAND FREEDMAN

ACUPUNCTURE THERAPY: CURRENT CHINESE PRACTICE

Leong T. Tan, Margaret Y. C. Tan and Ilza Veith

Routledge and Kegan Paul, London (1975)

159 pages. Price £5

This is not the place, nor does this book provide the opportunity, to discuss what most people still want to know, namely whether acupuncture works. Most of the book consists of detailed instructions on the use of acupuncture for a wide variety of diseases, from malaria to deaf-mutism. A good deal of Chinese is used (with translation) and there is a small bibliography and index.

S. L. BARLEY