

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