

Why sun protection advice to the UK public must be remedied quickly

By **Oliver Gillie**, director of the Health Research Forum

Headlines linking vitamin D and cancer caused a run on the vitamin in UK pharmacies over the Christmas holiday period. The stories were triggered by a meta-analysis of 63 studies of colon, breast, bowel and prostate cancer published in the *American Journal of Public Health*. Most of these studies showed that a greater intake of vitamin D from the diet or supplements, or both, protects against cancer. The authors suggested that “vitamin D supplementation could reduce cancer incidence and mortality at low cost, with few or no adverse effects”.

Vitamin D receptors have been found in more than 30 different tissues or organs and it is now well established that the active form of the vitamin is made in many different tissues from where it is secreted and used in a paracrine fashion. Patient laboratory work has shown that vitamin D is essential for the normal differentiation of many specialised cells and has

a vital role in apoptosis — the programmed death of cells that have finished their useful life. When there is insufficient vitamin D in the body not only are cells more likely to develop incorrectly but they are also less likely to be weeded out by apoptosis. Such rogue cells are now thought to be the first stage in the development of cancer.

Altogether some 18 or more different cancers occur more frequently in northern than in southern states of the US and many of them have a similar north-south distribution in Europe and Japan. This “ecological” evidence, as it is called, is not definitive but, considered together with all the other evidence from work with cells and animals and from case-control studies on a smaller number of cancers, it will convince many people that vitamin D has a major role in preventing many cancers.

Rickets, osteomalacia and osteoporosis are the most obvious results of vitamin D deficiency. But in recent years evidence has accumulated to suggest that vitamin D insufficiency, or lack of exposure to the sun, has a role in many other chronic diseases: multiple sclerosis, hypertension, diabetes (types 1 and 2), metabolic syndrome, heart disease, inflammatory bowel conditions, polycystic ovary disease, menstrual problems, some infections and dental decay.

If ever there was such a thing as a panacea vitamin D would qualify before anything else. After all, it is the only vitamin that cannot be obtained in sufficient quantity simply from a healthy diet, however hard you try. The best dietary source of vitamin D in the UK is margarine, which is mandatorily fortified with it. The second best source used to be breakfast cereals but, recently, Kellogs stopped fortifying many of its cereals in order to comply with requirements in other EU countries while maintaining economic production runs. This ought to be sending waves of panic through Government but it has been done quietly and nobody appears to have noticed yet.

About 5 per cent of the population obtain a useful supplement of vitamin D from multivitamin products, cod liver oil and vitamin D formulations of various kinds. But most of these products provide vitamin D in modest amounts of

around 200IU per day.

The optimum daily intake of vitamin D from all sources (food, supplements and sunshine) is now believed to be between 3,000 and 5,000IU per day. Most people in the UK, however, obtain well under 1,000IU per day — even during summer — and as a result some 60 per cent of adults in the UK have levels of vitamin D that are insufficient (serum calcidiol <50nmol/L) and some eight

per cent are grossly deficient (serum calcidiol <25nmol/L).

For the time being at least the sun is our best source of vitamin D, as it has been since man first came to northern Europe and evolved a white skin that gave the best chance of using the thin spring and autumn sun that occurs in that part of the world. For six months of winter the sun is not strong enough in Europe for any vitamin D to be made in skin.

However for some 20 years we have been told by government or Cancer Research UK (CR-UK) that exposure of the body to the sun during the four hours in the middle of the day risks skin cancer, that we should cover up, seek shade and put on sunscreen 20 minutes before going out. This is the CR-UK SunSmart programme, which has been imported from Australia and is totally unsuited to the British climate.

Greater lifetime exposure to the sun, however, seems to protect against melanoma — as it does against other cancers — although it is important to avoid burning. CR-UK’s Government-sponsored SunSmart programme appears to be giving us the wrong advice and over the years may have increased the overall risk of cancer, including melanoma. This is a tragic mistake for such an important and distinguished charity. It must be remedied quickly so we do not have yet another summer when the public is told to cover up and avoid the sun around midday. The middle of the day is a convenient time to sunbathe and when the sun is best able to provide vitamin D, which we now know is so vitally important for health.

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Listening Friends

The Listening Friends Scheme offers free telephone help to pharmacists under stress.

A call to the scheme will put the pharmacist in touch with a fellow pharmacist who will be there to give time to talk about the problems that are causing stress. The Listening Friend will have insight into the particular pressures that apply in pharmacy but the service is also there to help with problems not related to work, such as illness, disability, bereavement and relationship issues, which can all place strain and stress on an individual at any time in life.

The service is run by a team of volunteer pharmacists, who are all mature and experienced professionals in their field of practice. They have all been trained in listening skills and may be able to direct pharmacists under stress to more specialist help if needed.

Contact with the Listening Friends is made initially by telephoning 020 7572 2442 where a voicemail answering service will take details of a first name, a telephone number and a convenient time to call. A Listening Friend will then call back, usually on the evening of the same day or within 24 hours. Arrangements will be made to make further calls if the pharmacist would like some additional telephone time with the Listening Friend.

The scheme is supported by the Royal Pharmaceutical Society’s Benevolent Fund and is part of the fund’s aims in supporting pharmacists in need.

For additional information about the scheme, or the fund and the services it offers, call 01926 315994/01323 890135 or e-mail benevolent.fund@rpsgb.org