

Are you getting enough sun?

Peta Bee

Research suggests that adequate levels of vitamin D could reduce the risk of cancer by a third. Sunlight is an important source of the vitamin and just 30 minutes daily could make all the difference. COULD THE SUN'S rays help to prevent cancer? This was the surprising suggestion to emerge from a recent American study on the role of vitamin D. Adequate levels of the vitamin can, it seems, reduce the risk of cancer by nearly a third.

This may confuse the public. For years we have been bombarded with warnings about the risks of too much sunlight. The UK's long working hours and greater use of sunscreens mean that many of us are reducing our exposure — with potentially serious health implications, it seems. The sun's rays play an important part in our production of vitamin D, and there is evidence linking levels of the vitamin to various conditions including autoimmune diseases, muscle problems and osteoporosis in adults. But more controversially, a forthcoming paper from the Harvard School of Public Health, under review for publication, suggests that enough vitamin D can cut the risk of cancer.

In a long-term study of 50,000 men, a team led by Edward Giovannucci, a professor of medicine at Harvard, found that those with higher levels of the vitamin (because of their daily consumption of at least 5mcg through food and regular stints outdoors during the summer) reduced their overall risk of developing cancer by nearly a third. A separate study of women at Harvard is expected to produce similar results.

Several studies in recent years have indicated that the vitamin helps to protect against colon, breast and prostate cancer, but this latest study seems to suggest that vitamin D protects against all cancers. Professor Giovannucci believes that this is because cells in the body use vitamin D simply "to remain normal"; the nutrient helps to prevent cells from growing out of control in the way that a tumour does. He believes that if everyone had adequate levels (he suggests between 15mcg and 25mcg) of vitamin D in their bloodstream through diet and sunshine exposure, "it would be equivalent to eliminating a big portion of cancers".

Other researchers have found that vitamin D protects against multiple sclerosis and arthritis, and experts in bone metabolism at Tufts University in Boston found that it boosted muscle function in older people, making falls and fractures less likely. However, too many of us have inadequate levels of vitamin D. As Dr Bess Dawson-Hughes, director of the bone metabolism laboratory at Tufts, explains: "There is a huge problem with vitamin deficiency in America and parts of Europe."

Britain has no official daily dietary recommendation for consumption of vitamin D by adults. The US Department of Agriculture sets "adequate intake" at 5mcg from food. Dr Birgit Teucher, of the Institute of Food Research (IFR) in Norwich, estimates that if this were applied here, "90 per cent of us would fall short", with most people aged between 19 and 64 getting only about 3mcg a day. Vitamin D, long known to be important for calcium absorption and needed for healthy teeth and bones, is found in some foods — margarine and fortified breakfast cereals, dairy products, egg yolk and oily fish are among the best source — but is not as widely available in the diet as other nutrients. Its main provider is the sun because it can be synthesised when chemicals in the skin react to ultraviolet rays. As Claire Williamson, a nutrition scientist at the British Nutrition Foundation, explains: "An inactive form of vitamin D, cholecalciferol, is triggered when skin is exposed to sunlight. It is then taken by the bloodstream and stored in the muscles or in body fat, or is passed through the liver and kidneys to become an active form of the vitamin."

Just 30 minutes a day of exposure of the face and arms between April and October, when the sun's rays are strongest, is enough to ensure that levels remain stable throughout the year, according to Professor Graham Bentham, an environmental scientist at the University of East Anglia.

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However, he says, it is exposure to the same UVB rays that raises the risk of skin cancer. The sun creams that we wear to protect us are thus reducing our vitamin D levels. The national rise in obesity is also minimising vitamin D synthesis: because the vitamin is fat-soluble, it is increasingly being stored in layers of flab where it cannot be accessed as readily. Scientists at the IFR have suggested that some Britons need to triple the amount of the nutrient they are getting each day.

Pressure is being put on food manufacturers to fortify more foods with vitamin D; meanwhile, the solution could be to take a supplement. But too much vitamin D can damage soft tissues such as the heart, lungs and kidneys, so the Food Standards Agency sets an upper safety limit of 25mcg in daily pill form.

Bentham says that once spring arrives, baring your arms and face to the sun’s rays a few times a day will help. “But sun-bingeing is dangerous because it increases skin-cancer risk,” he says. “That is not what we are recommending at all.”

Sara Hiom, head of health information at Cancer Research UK, says: “We accept that vitamin D has an important role, but it is not necessary to sunbathe deliberately to make adequate amounts. We do not advocate complete avoidance of the sun; it should be possible to have a sensible attitude and still get enough UV radiation to produce sufficient vitamin D for good health.”