

NEWS

Sunscreen blocking our vitamin D

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THE slip, slop, slap message may be getting through to Australians in the battle against skin cancer, but in an attempt to tame one beast, another rears its ugly head.

Covering our skin with a protective barrier against the sun's rays may be to the detriment of our general health and wellbeing, says a US expert. Vitamin D deficiency has been on the rise for years and now, he says, it's the most common medical condition in the world.

In Australia 23 per cent of us are vitamin D deficient, including up to 43 per cent of young women - and a lack of exposure to the midday sun is partly to blame.

The other two causes are rising obesity levels (larger people require greater levels of vitamin D) and a lack of oily fish in our diets (the only food source that naturally contains the vitamin in any decent quantity).

Dr Michael Holick, based at the University of Boston, is one of the world's experts on vitamin D, having identified the major circulating form of the vitamin in human blood, which has now led to a test for deficiency.

He describes the deficiency as a "world-wide problem", but says that Australia's obsession with sunscreen - coupled with our rising obesity crisis - has exacerbated the crisis Down Under.

Factor 30 sunscreen reduces the skin's ability to make vitamin D by 96 per cent because, just like the skin's own pigment, sunscreen absorbs ultraviolet B radiation and prevents it from getting into the skin to make the vitamin, he explains.

And it's those often-punishing rays in the hottest hours of the day that our skin actually needs; even in Australia, the early morning and late afternoon sun comes in at an angle so oblique that the ozone efficiently absorbs the UVB radiation before we can.

Mother nature seemed to have cottoned on to the sun's power in producing vitamin D early on in civilisation. "We were born and we evolved in sunlight so mother nature has always provided humans with vitamin D. That's why there is virtually no vitamin D in our diet, there was no need," says Holick.

The sun's power is why people who live in the tropics, close to the equator where they get plentiful hours of harsh light, developed pigmented skin to protect themselves.

It may also be why the oceans covering the latitudes closest to the polar regions have traditionally been full of oily fish, offering those who live there an alternative way of absorbing vitamin D - think of the Scandinavians and their obsession with herring, sardines, mackerel and salmon.

The symptoms of vitamin D deficiency emerge over time.

In a baby, a major sign is profuse head sweating at night; for children, they may have growing pains; and for an adult, they may have aches in their muscles and stiffness in their joints, particularly when they wake up in the morning and are tired, says Holick.

"I can't tell you the number of doctors who after they've heard me lecture, they've gone and checked themselves, they were deficient, they've taken vitamin D and they've realised that a lot of

these generalised symptoms they thought were part of the ageing process, or working too hard in fact were due to vitamin D deficiency," he explains.

A shortage of the vitamin can also lead to severe health problems later in life, such as colon, prostate and breast cancer. Vitamin D is present in every cell in the body, and immune cells need a sufficient amount to fight infection.

A study in the US showed that when schoolchildren were given 1200 units per day for just four months during winter, their risk of contracting influenza A was reduced by 42 per cent.

There is also evidence to suggest that vitamin D deficiency is linked to mental issues such as depression and alzheimer's.

So how do we Australians find the balance between protecting our skin and achieving that well-needed vitamin boost?

Since you can burn under the Australian sun in just 15 minutes, Holick recommends white-skinned Aussies go out in the midday sun for five to 10 minutes, exposing their arms, legs, back and abdomen if possible two to three times per week before slopping on the sunscreen.

However, he urges us to always protect our face.

"It's the most sun exposed and the most sun damaged, and is only nine per cent of your body surface so it doesn't create much vitamin D anyway."

And people with dark skin need not bother with sunscreen at all.

"It seems remarkable to me that people of colour, of Afro American origin, put sunscreen on their kids when there's really no need to do it because they have a natural sun protection, and it actually prevents them from making any vitamin D," he says.

The midday rays form part of a three-pronged approach that Holick recommends to fight vitamin D deficiency - along with food and supplements.

Oily fish high in the vitamin include salmon, trout, mackerel, herring, sardines, eel, whitebait, fresh tuna, anchovies and swordfish.

But you should also reach for the mushrooms and grab a glass of milk.

"Mushrooms are being exposed to ultraviolet light, and that's a great way for Australians to get vitamin D," says Holick, adding that the vitamin is "rock stable" to heat, so it does not matter whether the mushrooms are cooked or eaten raw.

Milk - both cow's and soy - is also sometimes fortified with vitamin D, but it is not present in breast milk, which can be a problem for infants who also have strict daily requirements.

Holick says infants need 400 units of vitamin D per day, those over one year need 600 to 1000, and adults need 1500 to 2000 units.

While Holick does not advocate testing for vitamin D levels (it places a huge financial burden on health systems), he does recommend supplementing with vitamin D "from babyhood until death". Supplements are available either over the counter from your local pharmacy or by prescription from your doctor.

And you needn't worry about ingesting too much of the vitamin, Holick says; that is almost impossible.

"You could be eating your vitamin D mushrooms, drinking milk, taking a 2000-unit supplement and getting sun exposure and you don't have to worry about the amount.

"It may take two to three months to see a difference after implementing the three-pronged strategy, and up to six months to see a dramatic improvement," says Holick. "But it's never too late."