

Vitamin D and Melanoma

Department of Dermatology

We generally make most of our vitamin D when our skin is exposed to the sun. In the UK, few foods are fortified and the weather is not particularly sunny so that low levels of vitamin D are a particular problem.

Once you have been diagnosed with **melanoma**, healthcare teams usually advise you to avoid too much intense sun exposure. This is for two reasons:

- It may reduce the risk of developing another melanoma, which is important as 1 in 10 melanoma patients develop other primary melanomas in time.
- There are theories that sunburn may stop your immune system working as well as it should.

Yet, we know sun exposure is generally important to health because it allows your body to make **vitamin D**, which is crucial for bone and muscle health. There is some evidence that vitamin D may also be important for your health after a diagnosis of melanoma. This is very new information and we need the results from further studies before we can be sure it is right. Even though we have not proved that vitamin D has any effect on melanoma, because vitamin D is necessary for many other aspects of your health, we would say that having enough vitamin D is important. If you were to significantly reduce the amount of sun exposure you get now, then this may reduce your chance of another melanoma but could damage your health by reducing your vitamin D levels.

So what is our advice to you?

The best advice we can give you is to avoid too much sun exposure whilst avoiding vitamin D insufficiency and below we explain how in three steps.

1. Most importantly, avoid sunburn

2. When the UV index is at or above three;

- Avoid staying out in the sun for long periods.
- Avoid exposing unprotected skin to the sun between

10.00am and 2.00pm in particular.

-Use sun protection such as factor 50 SPF sunscreen with 4 or 5 stars UVA protection.

-Use appropriate clothing to protect your skin where possible.

The UV index will vary depending on where you are in the world, season and time of day. For example, in Australia people may need to practice sun protection for most of the year. For people who live in Northern England the length of time will be shorter.

When UV levels are high, adequate vitamin D is quickly created in the skin so prolonged exposure is not necessary. However in the UK, in practice most people do not have sufficient sun exposure to make enough vitamin D much of the year round.

3. Thirdly, avoid becoming deficient in vitamin D

Whilst avoiding low levels of vitamin D is important, some scientists have concerns that melanoma patients should also avoid high levels of vitamin D in the blood. Research is underway to find the right dose. In the meantime the NICE Clinical Melanoma Guideline suggested that newly diagnosed melanoma patients should have their blood levels tested and should take supplements as advised by their medical teams if their levels are judged to be low.

Most melanoma patients in the UK will need 400 IU (10µg) of vitamin D3 in the very long term, which can be bought from the chemist or the health food store. We would advise vitamin D3 without added calcium.

Some patients who have very low levels at diagnosis and others e.g. patients who are overweight may need the higher dose of 800 IU (20µg) per day as vitamin D is a fat soluble hormone. If you have not had your blood levels measured in the hospital then taking 400 IU per day is reasonable and in doubt discuss with your doctor and it may be necessary to measure the current level

in your blood. The aim is to have a level of between 60 nmol/L in winter and 85 nmol/L in the summer.

If you have kidney disease, a high calcium level, kidney stones or heart disease speak to your doctor before taking supplements.

If you are at all concerned please talk to your healthcare professional.

Other information

If you have a special requirement (for example, related beliefs or an allergy/disability) please contact your doctor to obtain more advice related to your needs.

If you have vision, mobility or access issues please contact our reception team on 01273 665013 for further advice / information

Patient Support Group

Melanoma UK at the following website, article on vitamin D published in August 2015 ; <http://www.melanomauk.org.uk/>

References

GenoMEL, the Melanoma Genetics Consortium at the following website, published in August 2015 ; <http://www.genomel.org./info-for-patients/%EF%BF%BCsun-protection-and-vitamin-d-after-a-diagnosis/#contentjump>

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