The sun’s ultraviolet (UV) radiation is the main cause of skin cancer and the best natural source for vitamin D.

Use the free SunSmart app to find out when you do and don’t need sun protection each day.

What is vitamin D?

Vitamin D is a hormone that controls calcium levels in the blood. It is needed for strong bones, muscles and overall health.

The sun’s UV radiation is both the main cause of skin cancer and the best natural source for vitamin D.

You can get a small amount of vitamin D from food (about 5-10%). Fish and eggs naturally have some vitamin D, while margarine and some types of milk have added vitamin D.

How much sun is enough?

Vitamin D levels change naturally with the seasons. From mid-August to the end of April, most people make enough vitamin D because UV levels are high and we spend more time outdoors. During these months most Victorians need just a few minutes of UV exposure mid-morning or mid-afternoon for vitamin D.

During sun protection times each day, a combination of five sun protection measures is recommended – even for people who have been diagnosed with a vitamin D deficiency. These include covering clothing, SPF 30 (or higher) broad-spectrum sunscreen, broad-brimmed hat, shade and sunglasses.

From May to mid-August in Victoria, UV levels are usually below 3. This means sun protection is not recommended, unless you work outdoors, are near reflective surfaces (like snow), or outside for extended periods.

The body can only absorb a limited amount of vitamin D at a time. Spending extra time in the sun won’t increase vitamin D levels – but will increase your risk of skin cancer.1,2

Will sunscreen stop the production of vitamin D?

Sunscreen use should not put people at risk of vitamin D deficiency. When sunscreen is tested in laboratory conditions it has been shown to decrease vitamin D production, however regular use in real life has been shown to have little effect on vitamin D levels. This is probably because those people who use sunscreen, tend to spend more time in the sun, so will naturally have higher vitamin D levels.3,4,5

Vitamin D deficiency

Vitamin D deficiency does not always have obvious symptoms, but without treatment there can be significant health effects. These can include bone and muscle pain, rickets (bone deformity) in children and osteomalacia in adults.6,7

Some people are at greater risk of vitamin D deficiency, including:

- **People with naturally very dark skin.** This is because the pigment in dark skin (melanin) doesn’t absorb as much UV radiation8
- **People who avoid the sun** due to previous skin cancers, immune suppression or sensitive skin and those who have limited UV exposure, such as nightshift workers
- **People who wear covering or concealing clothing**

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**People who spend a long time indoors**, such as those who are housebound or institutionalised

**People who are obese or have disabilities, diseases or medications** that affect vitamin D metabolism, including end stage liver disease, renal disease and fat malabsorption syndromes such as cystic fibrosis, coeliac disease, inflammatory bowel disease.

**Breast-fed babies of vitamin D deficient mothers** (formula milk is fortified with vitamin D).

People who may be at risk of vitamin D deficiency should talk to their doctor for advice.

**More information and resources**


The SunSmart app is a handy, free tool that allows users to know when they do and don’t need sun protection. Download the app at [sunsmart.com.au/app](http://sunsmart.com.au/app)

Need information in another language? Call 13 14 50 and ask to be connected to Cancer Council Victoria in your language.

References


This information is based on available evidence at the time of review. It can be photocopied for distribution.