



How much sun is enough?

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**

- **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

More information is available at sunsmart.com.au or contact Cancer Council Victoria on 13 11 20.

The *Risks and Benefits of Sun Exposure* position statement is available at cancer.org.au/vitaminDposition

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

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

References

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8. Dawson-Hughes B. Racial/ethnic considerations in making recommendations for vitamin D for adult and elderly men and women. *American Journal of Clinical Nutrition* 2004; 80(6): 1763S-6S.

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

Last updated: August 2017

How much sun do I need in Victoria?

NATURAL SKIN TYPE

Dark brown to black	Dark brown	Moderate brown	Light brown	Fair, white	Very fair, pale white
Never burns	Rarely burns	Burns minimally, tans easily	Burns moderately, usually tans	Burns easily, tans minimally	Always burns, never tans

MAY TO MID-AUGUST

It may not be possible to maintain vitamin D through sun exposure alone and supplementation may be required

Speak to your doctor for advice

- To help the body make vitamin D, get active outdoors every day in the middle of the day with some skin exposed
- Sun protection not recommended, unless you are outdoors for extended periods or near highly reflective surfaces (like snow)

WORK OUTDOORS? Sun protection is recommended every day, year-round. Visit sunsmart.com.au/work for more.

MID-AUGUST TO END OF APRIL

- A few minutes of mid-morning or mid-afternoon sun exposure each day is recommended for vitamin D levels
- When outdoors for more than a few minutes, wear covering clothing, sunscreen, a hat, and sunglasses, and seek shade

Based on available evidence as of October 2017.