

Vitamin D

Sunshine, not food, is your best source of vitamin D. Even a well-balanced diet is unlikely to contain enough vitamin D to meet your needs. Read on to find out how you can get enough vitamin D safely.

What is vitamin D?

A vitamin is a micronutrient which helps your body function. Usually, your body can't make vitamins, so you get these from your diet. However, interestingly vitamin D is actually a hormone, rather than a vitamin and is made under your skin in response to sunlight!

Why do I need vitamin D?

Vitamin D helps your body take in calcium and phosphorus, which are needed for healthy teeth and bones. It also assists your immune system to fight infections, support nerve function and helps maintain muscle strength to prevent falls.

What happens if I don't get enough vitamin D?

Vitamin D deficiency in adults can lead to soft bones (osteomalacia) and weak bones (osteoporosis), which can easily break (fracture).

Children who don't get enough vitamin D can develop rickets, which causes bone deformity, weak muscles, and poor growth.

Who might be at risk of vitamin D deficiency?

Children aged one to four and all babies (unless they are having more than 500ml of infant formula a day) are at risk of vitamin D deficiency.

You may be at risk if you:

- can't make enough vitamin D (you are over 65 years old or have a darker skin tone)
- have little sunlight exposure (you live in a northern part of the world such as the UK, are housebound/confined inside for long periods or cover most of your skin when you are outside)
- have a high body mass index (BMI)
- have a condition which may prevent you taking in vitamin D (Crohn's disease, coeliac disease, previous weight loss surgery, short bowel syndrome)
- have a condition which affects the way your body handles vitamin D (severe liver or chronic kidney disease)
- take certain medications (such as an anti-convulsant, anti-viral, cholestyramine or rifampicin)

How do I get enough vitamin D?

The best source of vitamin D is sunlight. Some foods contain small amounts of vitamin D, and it is a good idea to include these in your diet, however they do not provide enough vitamin D alone to meet your needs.

In the UK, between April-September you can make all your vitamin D from sunlight on your skin.

However, the amount your body can produce depends on:

- how strong the sunlight is
- how long and how much of your skin is exposed
- where you live
- your age
- your skin tone



Food sources of vitamin D include:

- ☛ oily fish such as salmon, sardines, herring, and mackerel
- ☛ egg yolks
- ☛ red meat
- ☛ liver
- ☛ some mushrooms
- ☛ infant formula
- ☛ foods fortified with vitamin D, such as breakfast cereals, fat spreads and unsweetened soya 'milk'

Sun safety tips

Spending too long in the sun can lead to sunburn, increasing your risk of skin cancer. Protect yourself from the sun while getting enough vitamin D.

Make sure you:

- ☛ spend time in the shade between 11am and 3pm (UK)
- ☛ prevent sunburn
- ☛ cover up with suitable clothing and sunglasses
- ☛ use at least factor (SPF) 30 sunscreen
- ☛ don't use sun/tanning beds

What about vitamin D supplements?

If you are concerned you are not receiving enough vitamin D, supplements can be helpful.

Taking a daily vitamin D supplement is advised for:

- ☛ Adults and children over 4 years - consider taking 10 micrograms during autumn and winter
- ☛ At-risk groups (see above) - consider taking 10 micrograms all year round
- ☛ Babies under one year - give 8.5-10 micrograms unless they have more than 500mls of fortified formula milk

Vitamin D supplements are available in supermarkets, health foods shops and pharmacies/chemists. Vitamin D3 is the most effective, however vitamin D2 is a plant-based alternative suitable for vegetarians/vegans.

People who are pregnant/breastfeeding and children aged six months - four years may qualify for Healthy Start vitamins. Ask your health visitor for more information.

How much vitamin D do I need?

Taking 10 micrograms daily of vitamin D meets the needs of most people, much larger amounts are unnecessary and can be harmful. When taking vitamin D supplements, you can still eat food sources of vitamin D, however don't take other supplements also containing vitamin D (e.g. cod-liver oil or multivitamins).

If you have been told you have high calcium levels or are taking medication for liver or kidney disease, cancer, epilepsy, fungal infections, heart disease, or you are taking steroids, check with your doctor or pharmacist before taking a supplement.

Top tips

- ☛ The best source of vitamin D is sunlight but some foods contain small amounts
- ☛ Consider a vitamin D supplement
- ☛ Vitamin D helps with healthy teeth and bones as well as helping your immune system, nerve function and helps muscle strength
- ☛ Children and people with certain medical conditions may be at risk of deficiency
- ☛ Everyone should take a vitamin supplement in the UK in winter but those at risk should take them all year round
- ☛ For personalised advice speak to your doctor, pharmacist, health visitor or dietitian

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If you need to see a dietitian, visit your GP for a referral or bda.uk.com/find-a-dietitian for a private dietitian. You can check your dietitian is registered at hcpc-uk.org.

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This resource has been produced in partnership with Registered Dietitians Rebecca Taylor, Elaine Lane and Alison Smith

The information sources used to develop this fact sheet are available at bda.uk.com/foodfacts

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