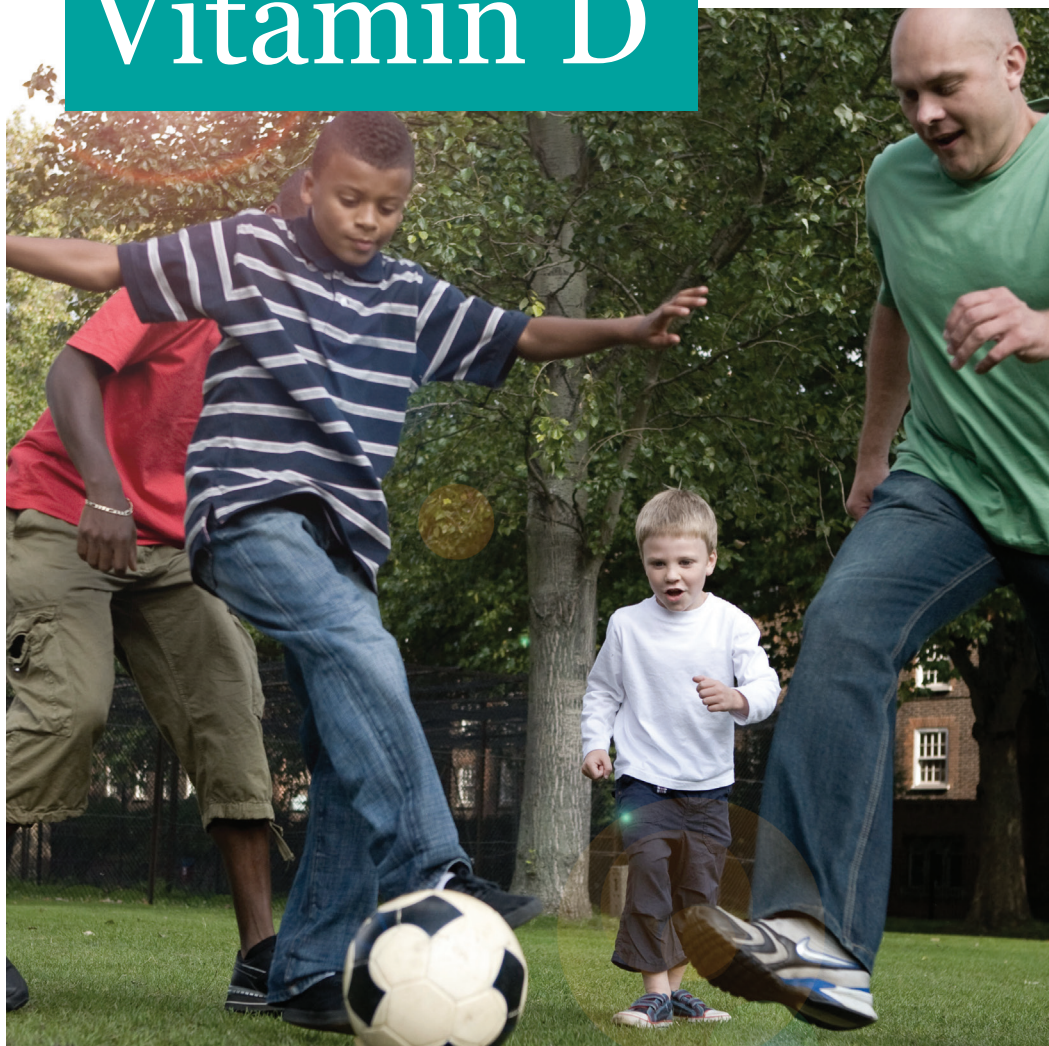


Vitamin D



Why Vitamin D is important
and how to get enough

Why is vitamin D vital for health?

Vitamin D is needed by the body for both physical and mental health, but is best known for making sure bones are strong and grow properly.

Vitamin D is needed all through life and even before birth. Pregnant and breastfeeding women need to have enough vitamin D so that developing and growing babies form healthy bones. Vitamin D is also essential for calcium to enter the body and strengthen bones.

Recently, it has been found that not having enough vitamin D is also related to other physical conditions such as diabetes mellitus, heart disease and certain cancers.

The development or worsening of mental health conditions, such as depression, low mood and schizophrenia, may also be related to inadequate levels of vitamin D.

Where is vitamin D found?

Sunlight

Vitamin D is made in the skin by the action of sunlight. This is the best natural source of vitamin D.



In northern countries, such as the UK, sunlight is only bright enough to make useful amounts of vitamin D from April to October and between 11am to 3pm.

Sunscreen and clothing blocks out sunlight, so vitamin D cannot be made in the skin. Being out in the sun without sunscreen is associated with skin cancer, however sunbathing for about 10-15 minutes without sunscreen is considered safe

for most adults. You should aim to get out of doors everyday. Sun beds and tanning salons are not recommended.

Some medication used in mental health can make your skin more sensitive to sunlight, therefore discuss safe sunbathing with your doctor or pharmacist.

Food sources

Vitamin D can be found in some foods, but is usually only present in small amounts, so dietary sources are unlikely to provide enough.

Some vitamin D can be found in oily fish (such as kippers, sardines, mackerel, trout and salmon), meat and eggs.

A few foods have vitamin D added to them, such as some margarine and low fat spreads, some breakfast cereals, powdered milks, dairy and soya products.

Supplements containing vitamin D

Vitamin D can be taken as supplements, usually as small tablets or capsules. There are two types of vitamin D available:

- Vitamin D3 (Cholecalciferol), usually made from sheep's wool
- Vitamin D2 (Ergocalciferol), made from plants

Vitamin D may also be found in multi-vitamins or in combination with calcium or other nutrients. Products containing fish oils, such as cod liver oil, may contain vitamin D, so check all labels to make sure that you are not doubling up. Your doctor, pharmacist or dietitian can offer advice if you show them your product packets or labels.

Are you at risk of a deficiency?

People who do not have much exposure to the sun are at risk of developing vitamin D deficiency, as the main source of vitamin D comes from the action of sunlight on the skin.

About a quarter of people in the UK may not have enough Vitamin D for optimum health.

In the UK there is not enough sunlight to make vitamin D for about half the year. Cloudy skies and pollution also reduce sunlight and many people won't want to go outside if it is a wet day.

Being overweight may also put you at risk as vitamin D can be absorbed into fat beneath the skin and not be available for use. Certain medicines may reduce your vitamin D levels.

The government has identified groups of people who are risk:

- People not exposed to much sunlight, for example, if you:
 - Are housebound
 - Stay indoors for long periods, such as if in a hospital or working indoors much of the day
 - Cover up your skin for cultural or other reasons.
- People who have darker skin, which will naturally reduce the amount of sunlight reaching the skin
- Men and women aged 65 years and above as older skin may not make as much vitamin D
- Pregnant or breast feeding women, especially teenagers and young women
- Children under 5 years of age.

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

1. You may be at greater risk of developing conditions such as diabetes, heart diseases, certain cancers and possibly weight gain.
2. When vitamin D levels are very low, symptoms may include tiredness, weakness, muscle and bone pain.
3. You may not be as mentally healthy as you could be.

Can you have too much vitamin D?

Yes, although the amount that may cause harm is high. To reduce the risk of problems, stick to the dose recommended and remember to take it regularly.

As a reminder, you could keep your vitamin D next to your bed, on a dining table or desk.

Doses vary and you can get advice about how much to take from your doctor or pharmacist. Children under five years will need less than those over five.

Vitamin D can be given as tablets, capsules or as injections. Some forms of vitamin D may contain gelatine, so ask if you want a gelatine-free product.



What are your levels?

If you or your doctor think that you may be deficient in vitamin D, your GP or hospital doctor can arrange a blood test for you.

This will measure a form of vitamin D in the blood called 'serum vitamin D' or 25-hydroxyvitamin D. Your doctor may also measure the calcium levels in your blood.



If you need vitamin D replacement therapy, you will be given a larger dose of vitamin D to bring your levels up quickly.

It may take a few months to complete your replacement treatment of vitamin D and improvements may take a few months to appear, however it is important to take the vitamin D regularly as prescribed.

If you stop taking the vitamin D, your levels can drop very quickly, especially in the winter.

If you are in an at-risk group, a daily dose of 10 micrograms or 400 international units (IU) is recommended, unless your doctor advises otherwise.

It is important that you are not already taking vitamin D in another product, such as a multi-vitamin, so always check labels carefully.

How can you make sure you get enough vitamin D?

1. Discuss whether you need a blood test for vitamin D with your doctor.
2. If you are in an at-risk group, take 10 micrograms (400 IU) of vitamin D as a supplement each day. Choose cholecalciferol (D3) if suitable for you as this may be the most effective form of vitamin D.
3. If your doctor or pharmacist agrees, go out in the sun for 10-15 minutes a day without sunscreen, so that the sun reaches your skin. You may want to put sun screen on moles or areas that are very sensitive to the sun.
4. Include foods that are rich in vitamin D in your diet and get out every day.



This leaflet was written by the Nutrition & Dietetics and Pharmacy services at West London Mental Health NHS Trust.



*We care
to make the
difference*

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