

Vitamin D

Everyone could benefit from taking vitamin D supplements to prevent low levels of vitamin D.



Why do we need Vitamin D?

Vitamin D is needed to keep bones, teeth, and muscles healthy. If you have low levels of vitamin D you may feel tired or have aches and pains, though some people don't have any symptoms at all. If vitamin D levels fall very low (known as vitamin D deficiency) bones can become softer and weakened, which can lead to other problems.

How can I increase my vitamin D levels?

Go outside: Our main source of vitamin D is from the action of sunlight on our skin. Small amounts of sunlight all through the year, even on cloudy days, during your daily activities (for example, for 10-30 minutes each day), may help to boost your vitamin D levels. Even just exposing your face and forearms to the daylight can be enough.

But you must be careful not to burn in the sun, especially in the summertime. Take care to protect your skin with sunscreen so that it doesn't start to turn red or burn. People with dark skin, such as those of African, African-Caribbean or south Asian origin, will need to spend longer in the sun to produce the same amount of vitamin D as someone with lighter skin.

Eat foods that contain higher amounts of vitamin D as part of a healthy balanced diet, such as:

- Oily fish like mackerel, salmon, sardines, and herring
- Liver
- Egg yolks
- Fortified foods – such as most fat spreads, soy yoghurts, soy milk, almond milk, some orange juices, and some breakfast cereals
- Tinned tuna
- Mushrooms
- Red meat
- Cheese



Who should take a vitamin D supplement?

Public Health England recommends that **everyone** should take a daily supplement of vitamin D, particularly during the autumn and winter months. Most people get enough vitamin D from sunlight and food in spring and summer so don't need a supplement during these months.

Some people can't get enough vitamin D from sunlight, though, and should take a daily supplement **all year round**. This includes you if:

- you have previously been diagnosed with vitamin D deficiency and have completed a course of treatment to correct the low level of vitamin D;
- you are aged 65 or older;
- you are not often outdoors, for example if you are frail or housebound;
- you live in a care home;
- you usually wear clothes that cover up most of your skin when you are outdoors;
- you have dark skin, for example if you are of African, African-Caribbean, or south Asian origin;
- you are pregnant or are breastfeeding, to make sure your baby and you have healthy bones.

Where can I get vitamin D supplements from?

Low-cost Vitamin D supplements can be bought from pharmacies, most supermarkets, health food shops and discount stores. Vitamin D is also known as **colecalfiferol**.



GP practices in Nottinghamshire don't usually prescribe vitamin D supplements now to prevent deficiency. Patients already receiving vitamin D supplements on an NHS prescription will be reviewed and the NHS prescription may be stopped.

If your vitamin D levels are very low, though, you may be prescribed a **treatment course** of vitamin D. When the course is completed, you will be advised to buy vitamin D supplements yourself and to take them long-term to prevent your vitamin D levels from becoming low again.

What dose of vitamin D should I take?

The amount of vitamin D in the supplements may be stated as International Units (IU) or micrograms. 1 microgram of vitamin D is equal to 40 IU. So 10 micrograms of vitamin D is equal to 400 IU.

Adults and children over 5 years old:

Adults and children over 5 years old need at least 400 units (10 micrograms) a day. This includes pregnant and breastfeeding women and people at risk of low levels of vitamin D. The maximum daily dose for adults to prevent low vitamin D levels is up to 4,000 units (100 micrograms) colecalciferol when taken every day. You may choose to take higher than that single dose of vitamin D at less frequent intervals, so please speak to your community pharmacy team to confirm the intended dose is within the recommended limits.

Supplements containing 1000 units (25 micrograms) may be much cheaper to buy than those containing 400 units (10 micrograms) or 800 units (20 micrograms).

A higher dose of vitamin D may be prescribed for you at first as treatment for the deficiency, followed by you buying vitamin D supplements.

Babies and children up to 5 years old:

The Department of Health recommends that:

- breastfed babies from birth to 1 year of age should be given a daily supplement containing 340 units (8.5 micrograms) to 400 units (10 micrograms) of vitamin D;
- formula-fed babies shouldn't be given a vitamin D supplement until they're having less than 500ml (about a pint) of infant formula a day, as infant formula is fortified with vitamin D;
- children aged 1 to 4 years old should be given a daily supplement containing 400 units (10 micrograms) of vitamin D.

Ask your community pharmacist for advice if you are not sure which vitamin D supplement would be best for you.



Women and children

Women and children in the Healthy Start scheme can get free supplements containing the recommended amounts of vitamin D. More information about the scheme can be obtained from <https://www.healthystart.nhs.uk/> or by asking your midwife/health visitor.

Further information

Further information on vitamin D is available on the NHS website, using the following link:
<https://www.nhs.uk/conditions/vitamins-and-minerals/vitamin-d/>