



VITAMIN D

WHY DO WE NEED VITAMIN D?

Vitamin D is needed to absorb calcium, phosphate and other nutrients from our diet. This is essential for good health, strong bones and muscles.

WHERE DO WE GET VITAMIN D FROM?

Around 90% of the vitamin D we require is made when our skin is exposed to direct ultraviolet B (UVB) rays from sunlight. Darker skins need more sun to get the same amount of vitamin D than a light-skinned person.

- The sunlight needed has to fall directly on to bare skin (through a window is not enough).
- 2-3 exposures of sunlight per week in the spring and summer months (**April to September**) are enough to achieve healthy vitamin D levels that last through the year.
- Each episode should be around 15 minutes to bare arms and face, that is uncovered and without sunscreen – many moisturisers and cosmetic agents contain sunscreen. Remember it is important to cover up or protect the skin if it starts to turn red or burn. This is not the same as sun tanning; the skin simply needs to be exposed to sunlight.

Note: The sun's rays can be damaging and sunburn should be avoided at all costs (mainly because it can increase your risk of skin cancer).



A small amount of vitamin D comes from the food we eat. Most people should be able to get the vitamin D they need, by eating a varied and balanced diet and by getting exposure to some sun.

Foods that contain vitamin D include oily fish (such as sardines, pilchards, herring, trout, tuna, salmon and mackerel), red meat, liver, egg yolk, mushroom and tofu.

In the UK, margarine, soya products, breakfast cereals and infant formula milk are often fortified with vitamin D. It is important to check the content of vitamin D in fortified foods to ensure recommended daily intake is being reached. Children who have more than 500ml of infant formula a day do not need any additional vitamin D as formula milk is already fortified.

Whilst it is important to eat foods that contain vitamin D regularly, this cannot make up for lack of sunlight exposure, especially during the autumn and winter months. This is why people may be advised to take vitamin D supplements.

WHO IS AT RISK OF VITAMIN D DEFICIENCY?

- Pregnant or breastfeeding women
- People under 5 years or 65 years and older
- Limited sun exposure, e.g. the housebound or people in institutions such as a care home
- People whose clothing cover up most of their skin when outdoors
- Ethnic groups with dark skin
- People who follow a strict vegetarian or vegan diet
- People who are obese or significantly overweight
- Certain medicines may reduce your Vitamin D levels (i.e. medicines for epilepsy or HIV, rifampicin or cholestyramine)

WHAT HAPPENS IF YOU DO NOT HAVE ENOUGH VITAMIN D?

A mild lack of vitamin D may not cause any symptoms. However, some people with a mild to moderate lack of vitamin D may have vague symptoms such as tiredness and general aches and pains. A severe lack of vitamin D - known as vitamin D deficiency – can cause bones to become soft and weak, which can lead to bone deformities. In adults, it can lead to osteomalacia, which causes bone pain and tenderness.

HOW MUCH VITAMIN D SHOULD I TAKE?

Public Health England recommends that in the autumn and winter months (**October to March**) **EVERYONE** should consider taking a daily supplement containing 10 micrograms (400 units) of vitamin D. For advice during COVID-19 refer to <https://www.nhs.uk/conditions/vitamins-and-minerals/vitamin-d/>

Most Vitamin D supplements are available to buy over the counter and Healthy Start Vitamins contain this amount but it is advisable to check this before purchasing. People in the 'at risk' group and babies and children under 5 years of age should consider taking a daily supplement throughout the year.

Vitamin D supplements for children and adults are available to buy over the counter in many pharmacies, health food stores and major supermarkets. Prices may vary amongst retailers, some products may cost as little as £1 per month.



Healthy Start Vitamins

Some women and children up to the age of 4 years are eligible for free vitamin supplements, which includes vitamin D, under the Healthy Start Scheme. Speak to your midwife or health visitor for more information or alternatively visit www.healthystart.nhs.uk.

ARE THERE ANY SIDE EFFECTS WITH VITAMIN D?

It is very unusual to get side-effects from vitamin D if taken in the recommended dose. However, very high doses can raise calcium levels in the blood. This would cause symptoms such as thirst, passing a lot of urine, nausea or vomiting, dizziness and headaches. If you have taken very high doses and have these symptoms, you should see your GP as soon as you can, so that your calcium level can be checked with a blood test.