

Vitamin D and you





Vitamin D is an essential vitamin for everyone, to help develop and maintain healthy bones.

Although many people get enough vitamin D, some groups need more and should take a vitamin D supplement.

Does it matter if we don't get enough?

Recent research shows that up to one in four people in the UK have low levels of vitamin D in their blood which means that they are at risk of some health problems.

Babies and young children who don't get enough vitamin D before they are born or in their early lives, can be at risk of developing rickets, which causes weak and badly formed bones.

Adults and older people who don't have enough vitamin D can develop a condition where the bones become soft and there is a greater risk of broken bones (known as osteomalacia).

There is some evidence that vitamin D may have an important role in preventing other health problems too, such as osteoporosis, several forms of cancer, multiple sclerosis (MS), cardiovascular disease, tuberculosis and type 1 diabetes.



How do we get vitamin D?

We get vitamin D from three main sources:

- **Sunlight:** Our bodies can make most of the vitamin D we need from sunlight on our skin during the 'summer' months (April to October).
- **Food:** small amounts of vitamin D are found naturally in fresh and tinned oily fish (such as salmon, mackerel, trout, kippers and sardines), eggs and meat. Some foods have vitamin D added to them, including margarine, some breakfast cereals, soya and dairy products, powdered milks and low-fat spreads (amounts in these products vary and are often quite small).
- **Vitamin D supplements:** Some people need more vitamin D than they can expect to get from sunlight and food alone and are therefore recommended to take daily supplements of vitamin D.

Who needs extra vitamin D?

Vitamin D supplements are recommended for the following groups:

- **Women who are pregnant or breastfeeding** in order to meet their own needs and those of their babies. Unborn babies receive vitamin D along with the other nutrients they need from their mothers' blood; those babies who are breastfed receive vitamin D from their mothers' milk.
- **Infants and young children** as their bones are growing and developing very rapidly in these early years.

- **People aged 65 years and over** as older skin is less able to make vitamin D from sunlight. They may also tend to be indoors for longer periods and tend to cover their skin.
- **People who are confined indoors for long periods and those who cover their skin for cultural reasons** as the skin must be exposed to sunlight to manufacture vitamin D.
- **People who have darker skin (eg those of African, African-Caribbean and South Asian origin)** because their skin does not produce as much vitamin D in response to sunlight.

The vitamin supplements recommended for these groups are shown in the table below:

Who?	How much?
All infants and children aged 6 months to 5 years unless they are drinking 500ml (1 pint) or more of infant formula each day*	7–8.5 micrograms per day (7µg–8.5µg/day)
All pregnant and breastfeeding women	
People aged 65 years and over	10 micrograms per day (10µg/day)
People who are not exposed to much sun or who cover up their skin for cultural reasons	
People with darker skin	

*Breastfed infants will need supplements from one month old if vitamin D supplements were not taken during the mother’s pregnancy. Extra vitamin D is added to infant formula milk so infants drinking at least 500ml (1 pint) of formula will not need supplements. However, when they stop infant formula or drink less than 500ml, they will need a supplement.



Where do we get vitamin D supplements?

You can buy supplements of vitamin D from your local pharmacist who will also be able to offer advice on which products are available. Note that supplement manufacturers differ as to the amount of vitamin contained in each dose or capsule/tablet but choose one that is as close to the recommended daily amount as possible, without exceeding it. Parents who have children under 5 years and who are entitled to the Healthy Start scheme can apply for free vitamin supplements. Visit www.healthystart.nhs.uk or ask a health professional for more information.

For older adults, vitamin D with added calcium may be recommended by healthcare staff to protect against osteoporosis.

If you are not sure which supplements to take, ask your pharmacist, GP or health visitor for advice.

Is it possible to take too much vitamin D?

Although the skin will not make too much vitamin D from exposure to the sun, it is possible to take too much from supplements and this can be harmful over time. The only way to take too much vitamin D is through supplements.

It is important to take (or give your child) a supplement containing no more than the amount of vitamin D shown on the table. You should not take (or give) more than this unless advised to do so by a doctor.



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