

Vitamin D and you

Updated advice | 2017





Why is vitamin D important?

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

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).

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 the end of September). However, in the 'winter' months (October to the end of March) sunlight is not strong enough to make Vitamin D. If you are out in the sun, take care to cover up or use sunscreen before you turn red or get burnt.

- **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:** Many of us need more vitamin D than we can expect to get from food and sunlight, especially during the autumn and winter months. Therefore, we should consider taking a daily supplement containing 10 micrograms (also written as mcg or μg) of vitamin D*.

Who needs extra Vitamin D?

Vitamin D supplements are recommended for most of the population and the amounts are outlined in the table below:

- **Breastfed babies from birth to one year of age** should be given a daily supplement of vitamin D throughout the year to make sure they get enough, as their bones are growing and developing very rapidly in these early years.
- **Babies fed infant formula** will only need a vitamin D supplement **if they are receiving less than 500ml** (about a pint) of infant formula a day, because infant formula has vitamin D added during processing.
- **Children aged 1 to 4 years** require a daily supplement of vitamin D throughout the year.
- **Everyone aged 5 years and over, including pregnant and breastfeeding women** should consider taking a daily supplement of vitamin D*.

- **People who are confined indoors for long periods and those who cover their skin for cultural reasons** need a daily supplement of vitamin D because their skin is not exposed to sunlight to make vitamin D.
- **People who have dark skin (eg those of African, African-Caribbean and South Asian origin)** need a daily supplement of vitamin D because their skin does not make as much vitamin D in response to sunlight.

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

Who?	How much?
Infants (including babies who are exclusively or part breastfed) from birth to one year of age unless they are drinking 500ml (1 pint) or more of infant formula each day	8.5–10 micrograms per day throughout the year
Children aged between 1 and 4 years	10 micrograms per day throughout the year
Everyone aged 5 years and over (including pregnant and breastfeeding women)	10 micrograms per day*
People who are not exposed to much sun or who cover up their skin for cultural reasons People with dark skin	10 micrograms per day throughout the year

*During the summer months most people will usually get enough vitamin D from sunlight, so you may choose not to take a supplement over the summer months (late March/April to the end of September).

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 in the amount of vitamin contained in each dose or capsule/tablet so 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.

The composition of Healthy Start Children's vitamin drops is currently under review following new guidance published in 2016. The current formulation is still a very useful contribution to daily vitamin D intake. Healthy Start vitamins should also be available for purchase at most pharmacies for families not covered by the scheme.

For older adults, vitamin D with added calcium may be recommended by healthcare staff to protect bone health and guard 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 in the table. You should not take (or give) more than this unless advised to do so by a doctor.



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