

Vitamin D

Vitamin D is important because it helps your body absorb and use calcium. This helps to keep your bones and muscles strong.

You can get vitamin D from sunlight, supplements and food.

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Vitamin D from sunlight

The sun's rays react with your skin to make vitamin D. In the UK, your skin can only get vitamin D from sunlight from the beginning of April to the end of September. It may vary depending on where you live.

During this time, you should expose your skin, without sunscreen, to direct sunlight. This should only be for around 10 minutes, once or twice a day. Take care not to burn. You only need to expose the skin on your face and arms.

Your skin can still make vitamin D on cloudy days but it can take longer.

It's important to **protect babies and children from the sun**. This is because they have very sensitive skin.

You can usually get all the vitamin D you need for your bones from sunlight in the summer.

Sunburn and skin damage

Sunburn increases your risk of skin cancer. Avoid exposing your skin to direct sunlight between 11am and 3pm, when the sun is at its strongest. You should also put on sunscreen if you're in sunlight for more than 10 minutes.

Having more than the recommended amount of sunlight may do more damage to your skin than good for your bones.

[Visit the NHS website for more sun safety tips.](#)

How much vitamin D do I need?

We can get vitamin D from food and supplements when we can't get enough from the sunlight.

Vitamin D in food and supplements is measured in micrograms (µg) or international units (IU).

1 microgram of vitamin D is the same as 40 IU.

Most adults need **10 micrograms (400 IU)** of vitamin D a day.

Do I need to take a vitamin D supplement?

Everyone should consider taking a daily supplement from the end of September to the beginning of April. This is because we can't make vitamin D from the sun in the winter.

A vitamin D supplement is recommended **all year round** if you:

- don't spend much time outside
- cover up most of your skin when you go outside
- use sunscreen most of the time.

It may be helpful to have a vitamin D supplement all year round if you:

- have dark skin
- are pregnant or breast-feeding.

If you're at risk of osteoporosis or taking an osteoporosis medicine, your doctor may advise you to increase your intake to a 20 microgram supplement of vitamin D a day. This is to make sure you're getting enough for your bones. They may also suggest you take a calcium supplement.

There are some health conditions and medicines that affect the way vitamin D is absorbed and used by the body. You may be recommended higher doses of vitamin D if you have these conditions. Talk to your doctor if you:

- have severe liver or kidney disease
- have a condition that affects the way you absorb food
- take long-term anti-epileptic drugs.

Taking more than the recommended amount of vitamin D is unlikely to improve your bone strength.

It's possible to have too much vitamin D. Taking more than 100 micrograms (4000 IU) a day of vitamin D for a long time can be bad for your health.

Make sure to check the packaging on your vitamin D supplement and any other supplements you're taking. This is because other supplements may also contain vitamin D. It's important to find out how much vitamin D all your supplements provide so you don't take too much.

Visit the [NHS website](#) to find out about vitamin D supplements for babies and children.

What types of Vitamin D supplements are there?

There are two types of vitamin D that are found in supplements: vitamin D3 (cholecalciferol) and vitamin D2 (ergocalciferol). Vitamin D3 is thought to be slightly more effective than D2. But, some vitamin D3 is made using lamb's wool, so may not be suitable if you follow a vegan diet.

How can I get vitamin D from food?

Some foods contain a small amount of vitamin D. But it's difficult to get enough vitamin D from food alone. Foods containing vitamin D include:

- oily fish, like herring, salmon and mackerel
- eggs
- red meats.

It's important to enjoy these foods in moderation and as part of a healthy, balanced diet.

Some foods such as certain breakfast cereals, bread and yoghurt are fortified with vitamin D. This means vitamin D has been added to the food. Check the packaging to find out how much vitamin D has been added.

We should try to eat one portion of oily fish a week.

But oily fish has higher levels of pollutants than other types of seafood. If you're pregnant, trying to conceive or breast-feeding, you should eat no more than two portions of oily fish a week.

You can only get a small amount of vitamin D from food. This means you can eat a healthy, balanced diet and continue your vitamin D supplement dose.

Am I getting enough Vitamin D?

You do not normally need a blood test to check if you are getting enough vitamin D. If you are unsure if you are getting enough vitamin D from sunlight, it's a good idea to start taking a vitamin D supplement. If you take a supplement, you should get all the vitamin D you need.

If you are starting the osteoporosis medicines zoledronate or denosumab you will often have a vitamin D test. If you have low levels of vitamin D, it will be treated before you start the osteoporosis medicine.

More support and information

About our health information

Our health information is written by the health information team and is reviewed by healthcare professionals and people living with osteoporosis. We make every reasonable effort to ensure the content is accurate and up-to-date.

Our information is not intended to replace the medical advice provided by your own doctor or other healthcare professional. Please always talk to a healthcare professional to discuss your bone health. ROS is not responsible for and has no liability for misinterpretation, misuse of information, loss or damage arising from any reliance on or use of the information provided.

For more information about osteoporosis visit **theros.org.uk/info** or call **01761 471771** to order printed information.

Support for you

The Bone Health and Osteoporosis UK online community is a welcoming and safe space for you to share your experiences with others. Whether you're living with osteoporosis or supporting someone, our community is here for you. Visit **theros.org.uk/online-community**

We have a network of support groups and teams across the UK, which are run by volunteers. Our groups provide support by organising regular meetings – both face-to-face and online. Regardless of where you live, you can join an online meeting from anywhere in the UK. Find your local support group and view the online programme at **theros.org.uk/support-groups** or email **volunteerengagement@theros.org.uk** or call **01761 473113**



Better bone health for everybody

Our specialist Helpline nurses are here to answer your questions or concerns about bone health or living with osteoporosis. You can call, for free, on **0808 800 0035** or email [**nurses@theros.org.uk**](mailto:nurses@theros.org.uk)

Become a member of the ROS and gain access to guidance and support from bone health experts and all the latest information on osteoporosis. Join today at [**theros.org.uk/membership**](https://theros.org.uk/membership) or call **01761 473287**

About the Royal Osteoporosis Society

We're the Royal Osteoporosis Society – the UK's largest national charity dedicated to improving bone health and beating osteoporosis. And we're here for everyone. We equip people with practical information and support to take action on their bone health.

Working with healthcare professionals and policy-makers, we're influencing and shaping policy and practice at every level. We're driving the research and development of new treatments, to beat osteoporosis together.

How you can help

As an independent charity, we don't receive any government funding. So we can only continue to provide our services through the generosity of our supporters.

We would appreciate any donation you're able to give to support our work. If you'd like to donate, visit [**theros.org.uk/donate**](https://theros.org.uk/donate) or call **01761 473287**

Your donation will help us support more people with osteoporosis.

To find out about volunteering, visit [**theros.org.uk/volunteer**](https://theros.org.uk/volunteer) or call **01761 473113**

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