

## Where to obtain Vitamin D Supplements

Vitamin D supplements are available from health food shops, pharmacies or from the internet. Supplies can be purchased for as little as £1 per month in packs of 90 capsules if you shop around.

The strength or dose you will need is **400 units** or **10 micrograms** of Vitamin D daily unless your doctor has recommended another dose.

Children under 4 years and pregnant/breast feeding women qualify for Healthy Start Vitamins which contain Vitamin D. For further information ask your GP or pharmacist.

## What happens if I take too much vitamin D?

Do not take more than 25 micrograms (0.025mg or 1000 units) a day, as it could be harmful. Taking too much Vitamin D over a long period of time can cause more calcium to be absorbed than can be excreted. The excess calcium can be deposited in and damage the kidneys. Excessive intake of vitamin D can also encourage calcium to be removed from bones, which can soften and weaken them.

## Summary

The following points summarise the advice around what you can do to improve your health and Vitamin D levels:

- ❖ Increase your exposure to sunlight to advised levels e.g. while walking to the shops or taking the children to school. If you don't want to expose your face and arms in public, try to sit outside in private for a short time each day
- ❖ Look at your diet and consider changes you can make to increase the food groups that are high in Vitamin D
- ❖ Purchase a Vitamin D supplement and take 10 micrograms daily during winter and autumn or all year round if you are in an at risk group.
- ❖ If you have a deficiency your doctor will recommend a dose to take until you are better. Your doctor has recommended the following dose:

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If you begin to have symptoms of bone/muscle pain or tenderness while taking vitamin D you, make an appointment to see your doctor

## Vitamin D



This leaflet explains about Vitamin D deficiency and how to maintain adequate levels

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## What is Vitamin D

To protect bone and muscle health, everyone needs vitamin D equivalent to an average daily intake of 10 micrograms.

Vitamin D is made in the skin by the action of sunlight and a healthy balanced diet, this is the main source of vitamin D for most people in spring and summer.

During autumn and winter however, everyone will need to rely on dietary sources of vitamin D. This is difficult to meet from dietary sources alone and you should consider taking 10 micrograms of vitamin D daily during this time if you don't eat enough foods that naturally contain vitamin D or are fortified with it. If you are at risk of developing vitamin D deficiency 10 micrograms daily should be taken all year round.

Vitamin D prevents [rickets](#) in children and [osteomalacia](#) in adults, and, together with calcium, helps to protect older adults from [osteoporosis](#).

Vitamin D also affects nerve & muscle function, inflammation, and influences the action of many genes that regulate the growth of cells.

## How can I tell if I'm at risk of developing Vitamin D deficiency?

You are at risk if any of the following applies to you:

- have dark skin e.g. African, African-Caribbean and South Asian origin
- are elderly or housebound
- wear occlusive garments or you regularly use sunscreen/high protection factor sunscreens
- have liver or kidney disease
- are a vegetarian or on a fish free diet
- have had multiple short interval pregnancies
- take certain drug treatments (ask your pharmacist or doctor)

If you fall into any of the above categories you should consider taking 10 micrograms of vitamin D all year round.

## Life style changes you can make:

Go out into the sun: 2-3 exposures of sunlight on bare skin per week from April to September. Each episode should be 20-30 minutes long to bare arms and face and should not cause sunburn. Sun exposure for vitamin D production has to be balanced against the risk of skin cancer. Sunscreens with a sun protection factor of 15 or more block 99% of dermal vitamin D synthesis.

Include foods in your diet that are rich in Vitamin D e.g.

- ✓ Oily fish species, such as [Salmon](#), [Mackerel](#), [Sardines](#), [Tuna \(fresh\)](#),
- ✓ Whole [egg](#)
- ✓ [Red Meat](#)
- ✓ [Beef liver](#)
- ✓ Fish liver oils, such as [cod liver oil](#),
- ✓ Mushrooms and UV-irradiated yeast are the only [vegan](#) sources of vitamin D from food sources.

Some foods are artificially fortified with vitamin D such as margarine, fat spreads and some breakfast cereals– look out for the RDA (Recommended Daily Amount) of Vitamin D on food packaging.