

# Vitamin D Information for patients



Vitamin D is important for bone health. It is needed to absorb calcium and other nutrients from our diet and helps to keep bones strong and healthy.

Taking vitamin D supplements is recommended for people who may not get enough vitamin D

Or

Who have been identified as having low levels of vitamin D from a blood test.

## Vitamin D deficiency (very low levels of vitamin D)

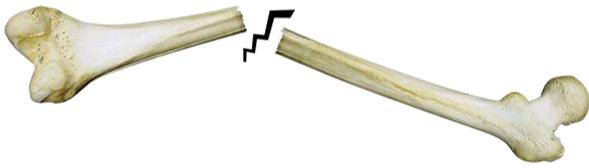


Vitamin D deficiency occurs when people do not get the recommended level of vitamin D over time.



Adults with very low levels of vitamin D for a long time develop a condition called osteomalacia.

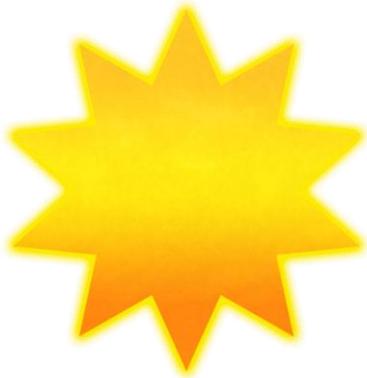
In this condition, calcium is lost from the bones.



The bones become softened and painful and broken bones (fractures) can occur without an injury, the muscles also become weak making it hard to walk.



Children who have very low vitamin D develop a similar condition called rickets which can also affect growth.



Nearly all the vitamin D we obtain is made in our body from sunlight (around 90%), so safe sun exposure is important.



Only a very small amount of vitamin D comes from the foods we eat.

However, it is still important to eat foods that contain vitamin D as part of a balanced diet.



Some people are at greater risk of vitamin D deficiency than others. This may be because they cannot produce enough vitamin D from sunshine on their skin, because their diet is low in vitamin D, or a combination of the two.



The best way to increase vitamin D levels for most people is by spending time outdoors regularly over the summer months (March to October). However, during the autumn/winter months, it is recommended that we all take a 10mcg supplement of Vitamin D

In the UK the sun is strongest between 11am – 3pm.

During this time most people can make sufficient vitamin D by going out for short periods and leaving only areas of skin that are often exposed uncovered (such as forearms, hands or lower legs).

During this time it is important to avoid sunburn.

Prolonged exposure (for example, leading to burning or dark tanning) is not a safe way to gain vitamin D.

It is important to check the skin regularly for any changes (such as changes to moles that occur over weeks or several months) and see your GP if you detect any changes.

# Which foods have vitamin D in them?

Foods that contain small amounts of vitamin D include:



- Oily fish (such as sardines, herring, salmon and mackerel),



- Liver, egg yolk, mushrooms, cheese, milk and butter (very small amounts)



- Fortified foods (including some margarines and breakfast cereals in the UK)



Try to include these foods regularly as part of a healthy balanced diet to top up your vitamin D levels.

# Where can I get vitamin D supplements from?



If you have been identified by your healthcare professional as being at risk of low vitamin D you will be advised to take a daily vitamin D supplement.



You should also follow advice around safe sun exposure and try to eat foods that contain vitamin D as part of your balanced diet.



Supplements can be bought from pharmacies, most supermarkets and health food shops.



If you are pregnant, breastfeeding or have a young child under five, you may be able to get these free or buy them at low cost from a local children's centre.

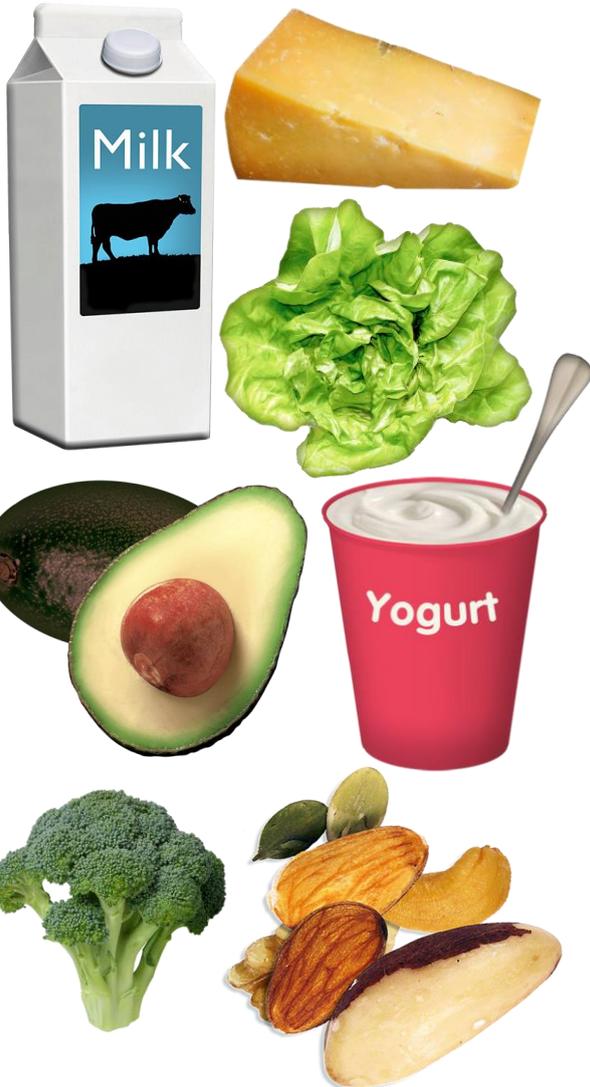


Ask your midwife or health visitor for more information about Healthy Start vitamins and where your nearest children's centre is.

# Calcium



Calcium is also vital for strong teeth and bones.



Most people should be able to get enough calcium through healthy eating.

The daily recommended amount of calcium varies, for example with age, but 700mg daily is enough to meet the daily requirements for nearly all of the adult population.

Examples of foods that are high in calcium are; milk, yogurt, cheese and other dairy products, green leafy vegetables, soya beans, tofu and nuts.



You can find further information on the following webpage:  
<http://www.nhs.uk/Livewell/healthybones/Pages/food-and-diet-for-strongbones.aspx>