

## 2. Good sources of Vitamin D

The main source of vitamin D is that made by our own bodies. 90% of our vitamin D is made in the skin with the help of sunlight.

Ultraviolet B (UVB) sunlight rays convert cholesterol in the skin into vitamin D. Darker skins need more sun to get the same amount of vitamin D than a light skinned person.

- The sunlight needed has to fall directly on to bare skin (through a window is not enough).
- 2-3 exposures of sunlight per week in the spring and summer months (**April to September**) are enough to achieve healthy vitamin D levels that last through the year.
- Each episode should be around 20-30 minutes to bare arms and face, that is uncovered and without sunscreen. Remember it is important to cover up or protect the skin if it starts to turn red or burn. This is not the same as sun tanning; the skin simply needs to be exposed to sunlight.

Note: The sun's rays can be damaging and sunburn should be avoided at all costs (mainly because it can increase your risk of skin cancer).

## 3. Who is at risk of vitamin D deficiency?

- People who are not exposed to much sun, such as people who cover up their skin for cultural reasons or those who are

housebound or confined indoors for long periods for example the elderly

- People with darker skins such as people of African-Caribbean and South Asian origin
- People with conditions that might affect absorption of vitamin D e.g. Crohn's disease, coeliac disease, some types of liver or kidney deficiency
- People taking certain medicines e.g. carbamazepine, phenytoin, barbiturates some anti-HIV medicines. Therefore to check with your pharmacist if you are taking any regular medication.
- People who follow a strict vegetarian or vegan diet, or a non-fish-eating diet.

## 4. What are the symptoms of vitamin D deficiency?

Symptoms of vitamin D deficiency are often very general or unclear, and many people have no symptoms at all or only vague ones. In severe deficiencies some of the typical symptoms include unexplained joint pain and muscle weakness.

## 5. Should I get my vitamin D level checked with my GP?

### Routine testing and re-testing to measure your Vitamin D level is NOT recommended.

It may be suspected from your medical history, symptoms, or lifestyle.

Sometimes, in special circumstances, a wrist X-ray is done for a child. This can assess how severe the problem is by looking for changes in the wrist bones.

## 6. How much vitamin supplement should I take?

Public Health England (July 2016) recommends that in the autumn and winter months (**October to March**) **EVERYONE** should consider taking a daily supplement containing 10 micrograms (400 units) of vitamin D. Most Vitamin D supplements are available to buy over the counter and Healthy Start vitamins contain this amount **but** it is advisable to check this before purchasing. People in the 'at risk' group and babies and children under 4 years of age should consider taking a daily supplement throughout the year.

Most people should be able to get the vitamin D they need, by eating a varied and balanced diet and by getting exposure to some sun. Foods that contain vitamin D include:

- Oily fish (such as sardines, pilchards, herring, trout, tuna, salmon and mackerel)
- Egg yolk
- Fortified foods (this means they have vitamin D added to them) such as margarine, some cereals, infant formula milk
- Cod liver oil or fish oil
- Mushrooms and tofu

Children who have more than 500ml of infant formula a day do not need any additional vitamin D as formula milk is already fortified.

If you would like to take Vitamin D supplements over the counter, taking up to

25 micrograms (1000 units) or less a day of vitamin D supplements is unlikely to cause any harm.

Some people may be advised by their doctor to take higher maintenance doses of Vitamin D (that is more than 25 mcg or 1000 units)

Vitamin D supplements for children and adults are available to buy over the counter in many pharmacies, health food stores and major supermarkets. Prices may vary amongst retailers, some products may cost less or an average of £1 per month.

Women and children from low income families who are eligible for the Healthy Start Scheme can get **free** vitamin supplements which include vitamin D.

### **Where do I get Healthy Start vitamins?**

Speak to your midwife, practice nurse, health visitor or local Council or Clinical Commissioning Group (CCG)

## **7. Cautions when taking vitamin D supplements**

Care is needed with vitamin D supplements in certain situations and you should check with your pharmacist before you start taking any vitamin D supplements.

- If you are taking other medicines: for example digoxin or diuretics ( water tablets) such as bendroflumethiazide or if you take certain medicines which interfere with vitamin D such as warfarin, carbamazepine, phenytoin, primidone and some medicines for the treatment of HIV infection.

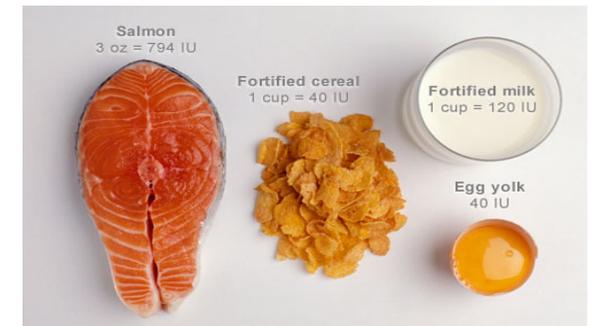
- If you have medical conditions such as kidney stones, kidney disease, liver disease or hormonal disease. Specialist advice may be needed.
- Laxatives such as paraffin oil may reduce absorption of Vitamin D
- Vitamin D should **not** be taken by people who have high calcium levels or certain types of cancer e.g. cancer of the parathyroid glands.
- Also check if you are already taking medication that may contain Vitamin D

## **8. Are there any side effects from Vitamin D supplements**

It is very unusual to get side-effects from vitamin D if taken in the recommended dose. However, **very high** doses can raise calcium levels in the blood. This would cause symptoms such as thirst, passing a lot of urine, nausea or vomiting, dizziness and headaches. If you have taken very high doses and have these symptoms, you should see your GP as soon as you can, so that your calcium level can be checked with a blood test.

South East London Area Prescribing Committee. A partnership between NHS organisations in South East London: Bexley/ Bromley/ Greenwich/ Lambeth/ Lewisham & Southwark Clinical Commissioning Groups (CCGs) & GSTFT/KCH/SLAM/Oxleas NHS Foundation Trusts & Lewisham & Greenwich NHS Trust  
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## **1. Why is vitamin D important?**

Vitamins are a group of chemicals that are needed by the body for good health. Vitamin D is a fat-soluble vitamin. It dissolves in fat which means the body can store it for future use, except in obese and overweight people. Vitamin D's main function is to help absorb calcium and phosphorus from the gut. This is really important for strong bones and muscles and also to maintain good general health.