

## First line advice: For patients with Low Vitamin D

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**This information sheet has been provided to give you basic initial information about what to do if you have an insufficiency or deficiency of Vitamin D. If you need more detailed advice and support, please ask your doctor to refer you to a dietitian.**

Vitamin D plays an essential role in the absorption of calcium from food and uptake into the bones. Deficiency (lack) of Vitamin D can lead to rickets (impaired bone growth) in children and osteomalacia (weak bones) in adults. Insufficient Vitamin D may cause other health problems as it is also important for the immune system, the muscles and the nerves.

Most Vitamin D is made from exposure of the skin to sunlight. There are only a few good dietary sources - oily fish, egg yolk and foods with added Vitamin D such as margarine and breakfast cereals.

The northerly latitude of Great Britain (50-60 degrees) means that levels of sunlight exposure may not be adequate to make enough Vitamin D. Low levels are common in winter and spring. Some groups are more at risk of deficiency (lack) or insufficiency (not enough) Vitamin D.

### Who is at risk?

Those who need more Vitamin D for growth:

- Pregnant and breastfeeding women
- Babies and pre-school children
- Twin and multiple pregnancies
- Teenagers

Those with reduced sun exposure:

- Asian and Afro-Caribbean people - dark-skinned people need a longer time in the sun to make Vitamin D
- Those who wear clothing covering their skin
- Housebound and immobile people especially those with long-term illness
- Excessive use of sun protection creams

Those with a diet low in Vitamin D:

- Not eating oily fish e.g. vegetarian and vegan diets.
- Prolonged breast feeding
- Exclusion diets e.g. for milk allergy

Those at risk of malabsorption or impaired metabolism of Vitamin D:

- Coeliac, Crohn's disease
- Chronic liver or kidney disease

#### **Foods naturally rich in Vitamin D:**

- Oily fish: herring, pilchards, trout, kipper, mackerel, salmon, sardines, tuna.
- Cod liver oil
- Egg yolk

#### **Foods with Vitamin D added:**

- Margarine and low fat spreads
- Some Breakfast cereals e.g. Special K, Cornflakes (check the label)
- Horlicks, Ovaltine, Nesquik

#### **Preventing Vitamin D deficiency**

If you have any of the risk factors above then it is likely you are at risk of Vitamin D deficiency. If you do not eat enough foods rich in Vitamin D, such as oily fish two times a week, you will need to consider taking Vitamin D supplements throughout your life. It is recommended that all pregnant or breastfeeding women and children up to 4 years should take supplements.

#### **Vitamin D supplements**

- Healthy Start vitamins –for pregnant women, babies up to 12 months and free for children from 6 months to 4 years to those on income support and a low cost for all others.
- Over-the-counter Vitamin D supplements are available from your local pharmacy, check with your doctor or pharmacist which is appropriate for you.
- High dose tablets or liquid will be prescribed by your Doctor if you have insufficiency or deficiency of Vitamin D.
- When you have completed a prescribed course of Vitamin D you may need to continue Vitamin D supplements throughout your life depending on your risk factors. You can buy these from your local pharmacy at a low cost.

#### **1<sup>st</sup> line Calcium advice**

Vitamin D works with Calcium to develop and maintain strong bones and teeth. Ask for the first line sheet on Calcium-rich foods.

This information leaflet was produced by the Community Dietitians at The London North West Healthcare NHS Trust, Northwick Park Hospital, Watford Rd, Harrow, HA1 3UJ

This information sheet was produced by the Community Dietitians and is intended to be given by a health professional only. It is not a substitute for proper medical diagnosis or dietary advice given by a Registered Dietitian. The advice is not appropriate for certain medical conditions such as diets that require the exclusion or restriction of particular foods. If in doubt, please check with your medical practitioner.  
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