

Vitamin D

an essential nutrient for all...

but who is at risk of vitamin D
deficiency?



Important information
for healthcare professionals

Why is vitamin D important?

A significant proportion of the UK population have low vitamin D levels, which has resulted in a rising number of reported cases of rickets in children and osteomalacia in adults. This is of particular concern for all pregnant and breastfeeding women, young children, older people, black and ethnic minority groups, and those at risk of inadequate sunshine exposure. Pregnant women especially need to ensure their own requirement for vitamin D is met and to build adequate fetal stores for early infancy.

Vitamin D deficiency impairs the absorption of dietary calcium and phosphorus, which can give rise to bone deformities in children, and bone pain and tenderness as a result of osteomalacia in adults.¹

It is essential that everyone, especially those people most at risk, are aware of the implications of vitamin D deficiency and most importantly what they can do to prevent it.

¹ Update on Vitamin D: Position statement by the Scientific Advisory Committee on Nutrition, 2007



Who is most at risk of vitamin D deficiency?

- All pregnant and breastfeeding women, especially teenagers and young women, are particularly at risk of vitamin D deficiency.
- Young children under 5 years of age.
- All people aged 65 years and over.
- People who are not exposed to much sun, for example those who cover their skin for cultural reasons, who are housebound or confined indoors for long periods.
- People from ethnic minorities who have darker skin, because their bodies are not able to produce as much vitamin D. Clinical deficiency has been most reported among children of African-Caribbean and South Asian origin.



How can you help?

IMPORTANT – by passing on the information in this leaflet, you will help to make sure that your patients who are most at risk of vitamin D deficiency know how to get sufficient vitamin D by taking daily supplements.

How do we get vitamin D?

From the sun

Our body creates most of our vitamin D from modest exposure to direct UVB sunlight. Regular, short periods of UVB exposure without sunscreen during the summer months are enough for most people. However, some groups (refer to Who is most at risk of vitamin D deficiency?) may not be able to get enough vitamin D in this way. In addition, those living at above 52° N latitude (the UK is at a latitude of 50–60° N) may not get enough vitamin D during the winter months.

IMPORTANT – everybody should be aware that the longer they stay in the sun, especially for prolonged unprotected periods, the greater the risk of skin cancer. So it's wise to stay covered up and use sunscreen (with a high UVB factor) for the majority of the time spent outside. Remember to always cover up or protect the skin before it starts to turn red or burn.

Our diet

Food in the diet can also contribute to vitamin D levels, but the average daily intake is just 2–4µg, and it is difficult to obtain enough vitamin D from diet alone.

Vitamin D can be found naturally in oily fish (such as salmon, mackerel and sardines), eggs and meat. Manufacturers also have to add it to all margarine and infant formula milk. Other manufacturers add it voluntarily to some breakfast cereals, soya products, some dairy products, powdered milks and low-fat spreads; however, this is often a minimal amount.

Breastfed babies get their vitamin D from their mother's breastmilk, which is one reason why it is important for pregnant and breastfeeding mothers to have adequate vitamin D levels of their own. Infant formula milk is fortified with vitamin D, so formula-fed infants get their vitamin D in this way.



What if somebody can't get enough vitamin D?

It is important that people who find it hard to get enough vitamin D from the sun and their diet take a vitamin D supplement. The recommended daily supplements are as follows:

People at risk of vitamin D deficiency	Daily vitamin D supplement
■ All pregnant and breastfeeding women	10µg/day
■ All infants and children from 6 months to 5 years, unless they are drinking 500ml (a pint) or more of infant formula a day at any time during this age range (Infants aged 0–6 months may not need supplements as they should get adequate amounts from breastmilk or infant formula milk. If there is any doubt about the mother's use of vitamin supplements during pregnancy and/or breastfeeding, breastfed infants will benefit from vitamin D supplements from 1 month)	6 months to 5 years – 7µg/day
■ People who are not exposed to much sun, e.g. people confined indoors for long periods and those who cover their skin for cultural reasons	10µg/day
■ People aged 65 years and over	10µg/day

Are free vitamin D supplements available?

Women and children participating in **Healthy Start** can get free supplements containing vitamin D. The women's supplements provide 10µg/day, and the children's vitamin drops 7.5µg/day. Primary care trusts are responsible for supplying Healthy Start vitamin supplements. They can also choose to sell them or supply them free of charge to customers who are not eligible for Healthy Start. For more information, visit: www.healthystart.nhs.uk.

Single vitamin D supplements are available to buy commercially. Remember – pregnant women should avoid taking multivitamins containing vitamin A (retinol) due to the teratogenic risk of vitamin A.² There are also some specifically formulated multivitamin supplements for pregnant women that exclude vitamin A.

² Review of Dietary Advice on Vitamin A by the Scientific Advisory Committee on Nutrition, 2005.

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What can you do to improve vitamin D take-up?

- You can make a significant difference to people's health by making those at risk aware of how important it is to make sure they get enough vitamin D, which they can get from a daily supplement.

**HEALTHY
START**

IMPORTANT – please make sure that women and families who may be eligible for Healthy Start know they can apply for the benefit. Healthy Start vitamins are available free through this scheme.

Visit www.healthystart.nhs.uk.

- **For further information**, refer to *Update on Vitamin D: Position statement by the Scientific Advisory Committee on Nutrition (2007)*, available to download at www.sacn.gov.uk or to purchase from The Stationery Office.

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