



Public Health
England

Protecting and improving
the nation's health

Vitamin D

Information for healthcare professionals

Withdrawn July 2016

A photograph of a bright sun with rays shining through a blue sky, partially obscured by a white, fluffy cloud. The sun is positioned on the left side of the frame, and the cloud is in the center. The overall scene is bright and clear.

Why is vitamin D important?

Some of the UK population are at risk of having low vitamin D levels. This is of particular concern for all pregnant and breastfeeding women, young children, older people, people with darker skin, and those who are not exposed to much sun. Pregnant women especially need to ensure their own requirement for vitamin D is met and that their baby is born with enough vitamin D for early infancy.

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

As a health professional you can make a significant difference to people's health by making sure those people most at risk, are aware of the implications of vitamin D deficiency, and most importantly what they can do to prevent it.



¹Update 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.
- Older 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 who have darker skin, because it takes their skin more time to produce as much vitamin D as it does for someone with lighter skin. Clinical deficiency has been most reported among children of African, 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 (see 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.

Our diet

Food in the diet can also contribute to vitamin D levels, but 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 infant formula milk. Some manufacturers add it voluntarily to some breakfast cereals, soya products, some dairy products, powdered milks and fat spreads.

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.

IMPORTANT – It is important that women take a vitamin D supplement throughout pregnancy and while breastfeeding to ensure they get enough vitamin D and that their baby is born with enough vitamin D for early infancy. Exclusive breastfeeding is recommended for around the first six months of a baby's life.

What if somebody can't get enough vitamin D?

It is important that people who are at risk of vitamin D deficiency take a vitamin D supplement. The recommended daily supplements are as follows:

People at risk of vitamin D deficiency	Daily supplement
All pregnant and breastfeeding women	10 µg/day
All babies and young children aged 6 months to 5 years <ul style="list-style-type: none">● Babies who are fed infant formula should not need a vitamin D supplement until they are having less than 500ml (about a pint) of infant formula a day. These products are fortified with vitamins and minerals and there is a risk of high intakes if they are consumed together.● Breastfed infants should be given a vitamin D supplement from one month of age if the mother did not take a vitamin D supplement throughout her pregnancy.	7 to 8.5 µg/day
People aged 65 years and over (particularly those living in institutions or who are not regularly exposed to sunlight)	10 µg/day
People who are not exposed to much sun (e.g. housebound individuals and those who cover their skin for cultural reasons)	10 µg/day

REMEMBER – pregnant women should avoid taking multivitamins containing vitamin A (retinol) due to the teratogenic risk of vitamin A²

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

Are free vitamin D supplements available?

Women and families with young children participating in the **Healthy Start** scheme can get free supplements containing vitamin D. In England the NHS Commissioning Board, Clinical Commissioning Groups and/or Local Authorities are responsible for providing or arranging the provision of Healthy Start vitamins to those on the scheme if they provide or commission either child health clinics or maternity services. They can also choose to supply them free of charge, at their own cost, to customers who are not eligible for Healthy Start. For more information, visit: www.healthystart.nhs.uk

Single vitamin D supplements or vitamin drops containing vitamin D (for use in infants and young children) are available to buy at most pharmacies and supermarkets, or can be prescribed for those who are not eligible for Healthy Start vitamins. Healthy Start vitamins cannot be prescribed.



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

Visit www.healthystart.nhs.uk for more information and an application form

Further information:

Please 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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HEALTHY START

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. It does this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. PHE is an operationally autonomous executive agency of the Department of Health.

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