

## FACTSHEET

# The Importance of Vitamin D

## What is vitamin D?

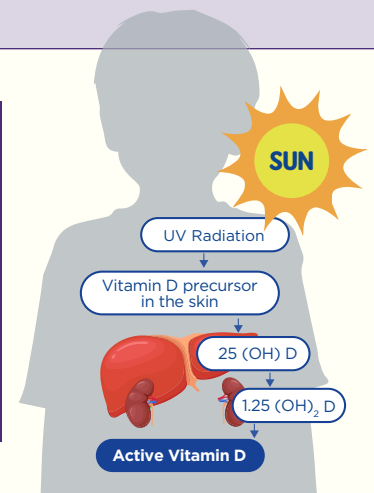
Vitamin D is an essential nutrient, supporting bone health and vital functions such as the immune system from conception through childhood and into adulthood<sup>1</sup>.

## Vitamin D is important for<sup>1</sup>:

- Healthy immune system
- Cell growth and differentiation
- Cardiovascular function
- Skeletal health
- Reducing the risk of infectious and allergic disease
- Maintaining appropriate balance of calcium and phosphate

## Sources of vitamin D

Direct sunlight exposure is the best source of natural vitamin D, it is synthesized in the skin upon exposure to sunlight containing sufficient Ultraviolet B (UVB) radiation, levels of which are higher in the summer months, around midday. This is the main source for most people. It can also be obtained from foods or dietary supplements<sup>2</sup>.



## Dietary sources of vitamin D:



Oily fish such as sardines, trout, salmon or mackerel



Fortified foods like breakfast cereals and fat spreads



Organ meat such as liver



For formula-fed infants: Infant formula milk<sup>3</sup>



Egg yolks

## What are the health risks of vitamin D deficiency?

Vitamin D deficiency is a public health concern in the UK<sup>1</sup>. The Department of Health and Social Care recommends that from birth to 1 year of age, breastfed babies should receive vitamin D supplement to make sure they get enough<sup>4</sup>.



Severe vitamin D deficiency can lead to rickets<sup>5</sup>.



Vitamin D deficiency can cause a condition called osteomalacia in adults.<sup>7</sup>



Vitamin D deficiency can also result in increased vulnerability to illness e.g., asthma, type 1 diabetes, respiratory infection, influenza<sup>5,6</sup>.

# Guidance on vitamin D supplementation in the UK<sup>1,4,7</sup>

The Department of Health and Social Care advises that breastfed babies should receive a daily vitamin D supplement of 8.5–10 micrograms from birth to 1 year, regardless of whether the mother takes vitamin D herself.

	Age	What is recommended?	Additional notes
<b>Breastfed babies</b>	Birth to 1 year of age	Daily supplement containing 8.5-10µg	
<b>Formula fed or combination fed</b>	Birth to 1 year of age	Daily supplement containing 8.5-10µg ONLY IF INTAKE OF FORMULA IS LESS THAN 500ml PER DAY	
<b>Children aged 1-4 years</b>		Daily supplement containing 10µg	Consider any vitamin D intake from a Toddler milk or Fortified milk
<b>Adults and children over 4 years</b>		Everyone should consider taking a daily supplement containing 10µg of vitamin D during the autumn and winter	In spring/summer, most people will get most of their vitamin D through the action of sunlight on the skin

## Groups at risk of low vitamin D<sup>3</sup>:

- Babies and young children, and children and adolescents who spend little time playing outside
- Women who are pregnant or breastfeeding
- People over 65 years old because their skin is not as good at making vitamin D
- People with darker skin tones
- Those who always cover most of their skin when outside
- Have a high body mass index (BMI)
- Have a condition which may prevent you taking in vitamin D (Crohn's disease, coeliac disease, previous weight loss surgery, short bowel syndrome)
- Have a condition which affects the way your body handles vitamin D (severe liver or chronic kidney disease)
- Take certain medications (such as an anti-convulsant, anti-viral, cholestyramine or rifampicin)

**References:** **1.** Vitamin D and Health. SACN, 2016. Available at [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/537616/SACN\\_Vitamin\\_D\\_and\\_Health\\_report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/537616/SACN_Vitamin_D_and_Health_report.pdf) **2.** [https://assets.publishing.service.gov.uk/media/5a82461be5274a2e87dc210e/UV\\_Radiation\\_\\_Vitamin\\_D\\_\\_Health.pdf](https://assets.publishing.service.gov.uk/media/5a82461be5274a2e87dc210e/UV_Radiation__Vitamin_D__Health.pdf) (Accessed December 2025) **3.** Vitamin D: food fact sheet Available at [www.bda.uk.com/resource/vitamin-d.html](http://www.bda.uk.com/resource/vitamin-d.html) (Accessed January 2026). **4.** Vitamins for children. NHS, 2021. Available at <https://www.nhs.uk/conditions/baby/weaning-and-feeding/vitamins-for-children/> Accessed January 2026. **5.** Chang SW, Lee HC. *Pediatr Neonatal* 2019;60:237–244. **6.** Braegger C *et al*, *J Pediatr Gastroenterol Nutr*, 2013;56:692-701. **7.** NHS. Vitamin D. Available at <https://www.nhs.uk/conditions/vitamins-and-minerals/vitamin-d/> Accessed January 2026.

**IMPORTANT NOTICE:** We believe that breastfeeding is the ideal nutritional start for babies and we fully support the World Health Organization's recommendation of exclusive breastfeeding for the first six months of life followed by the introduction of adequate nutritious complementary foods along with continued breastfeeding up to two years of age. We also recognise that breastfeeding is not always an option for parents. We recommend that healthcare professionals inform parents about the advantages of breastfeeding. If parents choose not to breastfeed, healthcare professionals should inform parents that such a decision can be difficult to reverse and that the introduction of partial bottle-feeding will reduce the supply of breast milk. Parents should consider the social and financial implications of the use of infant formula. As babies grow at different rates, healthcare professionals should advise on the appropriate time for a baby to begin eating complementary foods. Infant formula should always be prepared, used and stored as instructed on the label in order to avoid risks to a baby's health.