



# Vitamin D Deficiency

# Paediatric Management Advice Leaflet

#### What is Vitamin D?

Vitamin D is a nutrient which helps our body function. Vitamin D, also known as the sunshine vitamin, is made under your skin when you are outside in daylight. Sunshine, not food, is where most of your vitamin D comes from. Some babies are born with low levels of vitamin D and some do not get enough in breast milk.



# What does Vitamin D do to the body?

Vitamin D works with chemicals in your body called calcium and phosphorus to maintain healthy bones, muscles and teeth. Vitamin D is also important in protecting muscle strength and preventing rickets, osteomalacia (softening of bones) and falls. Even if you have a calcium-rich diet (for example from eating plenty of low-fat dairy foods and green leafy vegetables), without enough vitamin D you cannot absorb the calcium into your bones and cells where it is needed.

# What happens if I do not get enough Vitamin D?

Low levels of vitamin D can cause bone pain, muscle weakness and rickets. Rickets is a condition that affects bone development in children. It can cause bone pain, reduced growth and soft, weak bones which can cause permanent deformities.

#### When is vitamin D made in skin?

It is the sun's ultraviolet rays that allow vitamin D to be made in the body. In the UK, ultraviolet light is only strong enough to make vitamin D on exposed skin (on the hands, face and arms or legs) during April to September. The amount of vitamin D you make depends on how strong the sunlight is. You will make more in the middle of the day when the sun is strongest. You will also make more when you are in direct sunlight than in the shade or on a cloudy day. During the autumn and winter, we get vitamin D from our body's stores and from food sources but these are insufficient to keep up vitamin D levels.

# Sun safety

Strong sun burns skin so we need to balance making vitamin D with being safe in the sun. Take care to cover up or protect your skin with sunscreen before you turn red or get burnt (you can wear factor 50 sunscreen but don't wear a sun block).

# Groups at risk of low vitamin D

- Babies and young children.
- Children who spend little time playing outside.
- People with darker skin tones living in the UK or other northern climates.
- Children who cover most of their skin when outdoors.
- The further north you live, the less sufficiently strong sunlight there is.

#### Which foods contain vitamin D?

Including the following foods into your child's diet to help increase their vitamin D:

- Oily fish such as salmon, sardines, pilchards, trout, herring, kippers and eel.
- Cod liver oil.
- Egg yolk, meat, offal and milk.
- Margarine, breakfast cereals, formula milk and yoghurts with added Vitamin D.

# Physiotherapy and Vitamin D

If your pain is a result of having low vitamin D levels, then Physiotherapy will not be effective in managing or taking away the pain. The recommendations are to take the vitamin D supplements as prescribed by your doctor, and wait for this to take effect, which is likely to take around 3 months before you notice an improvement. If you do not take the medication as prescribed then it is unlikely your pain will improve.

For more information on Vitamin D, please visit www.bda.uk.com/foodfacts.

If you need any further information or you feel that you need further intervention please contact the paediatric physiotherapy department on: 01282 803587 or email paeds.physiotherapy@elht.nhs.uk

If you require this document in an alternative format or language, please contact paeds.physiotherapy@elht.nhs.uk

#### **Polish**

W celu otrzymania tego dokumentu w innym formacie lub języku, prosimy o kontakt z paeds.physiotherapy@elht.nhs.uk

#### **Punjabi**

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Urdu

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#### Bengali

আপনি যদি এই প্রচারপত্রটি অন্য কোন আকারে বা অন্য ভাষায় চান, তাহলে যোগাযোগ করবেন paeds.physiotherapy@elht.nhs.uk

#### Romanian

Dacă aveţi nevoie de acest document într-un format sau limbă alternativă, vă rugăm să contactaţi paeds.physiotherapy@elht.nhs.uk

#### Lithuanian

Norint gauti šį dokumentą kitu formatu ar kita kalba, prašome susisiekti su mumis paeds.physiotherapy@elht.nhs.uk

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