



Maini Stones  
Change Is Always Possible

# Vitamin D & Nutrition

by Moira Newiss, Registered Nutritional Therapy Practitioner

Website: [www.moiranewiss.co.uk](http://www.moiranewiss.co.uk)

October 2020

## Why Does Our Body Need Vitamin D?

Vitamin D is produced in our skin by the interaction of the UVB part of sunlight which produces a compound that is converted to Vitamin D in our liver and turned into an activated when needed. There are many ways by which Vitamin D can improve our health and help reduce the risk of infection and death. In relation to respiratory infections this is through its effect on physical barriers in our body (such as our lung and gut linings) and via our immune system.

Unfortunately in Scotland we don't get enough sunlight between October and March to make vitamin D and as a result we need to rely on our stored supply of it. Of course how much we have and how long it lasts depends on several things, including how much sun exposure you have had, how well you produce it and how fast your body uses it up.

## What Natural Food Sources Contain Vitamin D?

From October to March, we need to rely on dietary sources of vitamin D and since it is found only in a small number of foods, it can be difficult to get enough. Good food sources of vitamin D3 are oily fish and eggs. Other food sources include fortified foods such as breakfast cereals and spreads.

For examples of some of the top vitamin D containing foods, 140g of grilled mackerel will contain roughly 11.9µg vitamin D, 140g baked salmon has 10.2µg and two scrambled eggs will have 3.4µg. For vegans some mushrooms contain vitamin D2 but this depends on how much exposure to light they have had.

## If We Supplement How Should We Do This?

Because of the difficulty getting sufficient from food the Scottish Government now recommends that everyone (including children) should consider taking a daily supplement containing 10 micrograms of vitamin D, particularly during the winter months (October – March). They also specifically recommend that groups at higher risk of vitamin D deficiency take a daily supplement all year round. Adults and children aged 5 years and over who are at risk of vitamin D deficiency should take 10 µg of vitamin D every day.

Supplements are available at your local health food shop, chemist or some supermarkets. Vitamin D supplements may state the amount in micrograms or international units. To help you work this out 1 microgram of vitamin D is the same as 40 international units so 10µg equates to 400 international units.

Within the context of COVID-19 and the apparent second wave, the British Association of Applied Nutrition & Lifestyle Medicine recommends all adults supplement a minimum of 600-800 IU/d vitamin D3 daily, increasing to a higher therapeutic dose of 5000 IU/d should symptoms develop. Research into respiratory infections shows that Vitamin D helps

prevent flu and cold symptoms developing into acute respiratory infections, lowers the severity of infection and reduces ICU admissions.

### **Checking Your Vitamin D Level**

Most of the population of the west coast of Scotland have below optimal levels of Vitamin D due to the low level of sun exposure. Current NHS Guidance suggests that most people do not require to have their Vitamin D levels tested if they are taking less than 5,000 units a day, as toxicity is unlikely at these levels.

However if you want to ensure your vitamin D levels are optimal you can arrange a test yourself directly through a company such as [Medichecks](#) who offer finger prick testing services by post. If you are seeing a Nutritional Therapist they will be able to advise you on how best to optimise your levels should you be found to have deficient or sub-optimal levels by adjusting the dose of vitamin D.

Vitamin D levels of <25nmol/L are generally considered to be deficient and levels over 50nmol/L are considered sufficient, while optimum levels are thought to be >75nmol/L.

### **References**

[BANT recommends 'extraordinary measure' of Vitamin C and Vitamin D supplementation](#)

[Evidence that Vitamin D Supplementation Could Reduce Risk of Influenza and COVID-19 Infections and Deaths, Nutrients \(2020\)](#)

[Vitamin D Advice for All Age Groups. Scottish Government, 2020](#)

[Vitamin D and You leaflet - Public Health Scotland](#)

[Vital Vitamin D, British Nutrition Foundation, 2019,](#)

[NCBI - Vitamin D in Health and Disease, 2008](#)

[Recommended intakes of vitamin D to optimise health, associated circulating 25-hydroxyvitamin D concentrations, and dosing regimens to treat deficiency: workshop report and overview of current literature, 2015](#)

Vitamin D Prevention and Treatment of Deficiency in Adults, 2019, NHS Greater Glasgow & Clyde.

Vitamin D Guideline: Prevention and Treatment of Deficiency in Adults, Medicines Update: Primary Care, 2017, NHS Greater Glasgow & Clyde.

**Note:** This guide is included in the [Understanding Vitamin D](#) blog on [Change Is Always Possible](#).

**Disclaimer:** The views expressed here, in blog posts and on the website [Change Is Always Possible](#) are those of the author Mairi Stones alone, and do not represent the views of any associated bodies. We do not diagnose, treat, prevent or cure any disease or condition. Information provided in this blog is not intended to substitute advice, treatment and/or diagnosis from qualified medical and nutritional professionals.