



Vitamin D and Lifestyle Advice

Vitamin D or 25(OH) D is essential for good bone health. It promotes dietary calcium absorption from the gastrointestinal tract whilst reducing the release of parathyroid hormone. Low vitamin D levels are linked to conditions such as rickets in children and osteomalacia/osteoporosis in adults.

Sun Exposure

Around 90% of the body's requirement is achieved by exposure to UVB sunlight exposure with only a small amount being derived from dietary sources. It follows that adequate exposure to sunlight is essential for good health. However, there are a great many environmental and personal factors which greatly affect vitamin D production such that one consistent recommendation for everyone isn't possible.

In 2010, a study of British Caucasians revealed that the equivalent of 13 minutes of midday exposure to the summer sun three times a week in winter raised 25(OH) D to 50nmol/L in 90% of the study population. 26% of the study population had levels exceeding 70nmol/L.¹

It has been shown consistently that vitamin D is produced in sufficient levels in response to doses of UV below those which cause sunburn.²⁻⁷ Too much sun (such that it causes reddening of the skin) actually converts vitamin D into inert substances in the skin. Therefore, extra UV exposure produces no additional vitamin D whilst increasing the well-known damage to DNA and risk of skin cancer. Some unprotected sun exposure around noon may be necessary but people should not sunbathe for prolonged periods of time in the hope of producing more vitamin D-little and often is best.⁸

During the winter months in the UK, there is not enough sunlight for vitamin D synthesis and people rely on tissue stores, dietary sources and supplements. Sufficient vitamin D synthesis in the summer should ensure most individuals maintain a vitamin D level of above 25nmol/L in the winter even without supplementation.

Dietary sources

Only a few foods are a natural source of vitamin D, with oily fish and fish oils, meat and eggs being the largest providers. In the UK, on average, men and women obtain 3.7mcg and 2.8mcg of vitamin D respectively through diet. Some breakfast cereals, margarine and fat spreads are amongst those foods fortified with vitamin D in the UK.

The Food Standards Agency has funded three studies looking at the impact of dietary vitamin D and its overall impact upon the vitamin D status in adults and the elderly in the UK. The conclusion of one of the studies was that dietary sources contribute little to the overall vitamin D status of British Caucasians and Asians⁹.

Author: Lisa Murray-Prescribing Advisor

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