



The Healthy Choice!



TOP TIPS

Meet our consultant nutritionist Aveen Bannon who's always on hand with great tips to make living a healthier life a little easier....



VITAMIN D

This vitamin is definitely considered the vitamin of the moment as we learn and discover its many important roles in our body. Typically referred to as the "sunshine vitamin" it is most commonly known in relation to bone health but as research continues and develops about this particular vitamin we are starting to learn that it plays a role in protecting our immune system and may even possibly improve mortality in the elderly. Kelkin asked me to review the new science and research surrounding this vitamin to inform you of its importance in our diets and how to ensure we are getting enough.

WHAT DO WE KNOW ABOUT VITAMIN D



- Well vitamin D is described as a fat-soluble vitamin that is naturally present in a few foods, added to others, and available as a dietary supplement.
- We also can get a significant amount of vitamin D from the sun. When ultraviolet rays hit the skin it triggers vitamin D synthesis in the liver and the kidneys.
- Vitamin D plays an essential role in the absorption and use of calcium and phosphorus, so it is imperative for the formation and health of bones, teeth and cartilage.

- Without sufficient vitamin D bones can become thin, brittle, or misshapen. Prolonged vitamin D deficiency can cause rickets in children and Osteomalacia (softening of the bones) in adults. More marginal vitamin D deficiency is likely to be a significant contributing factor to Osteoporosis risk.

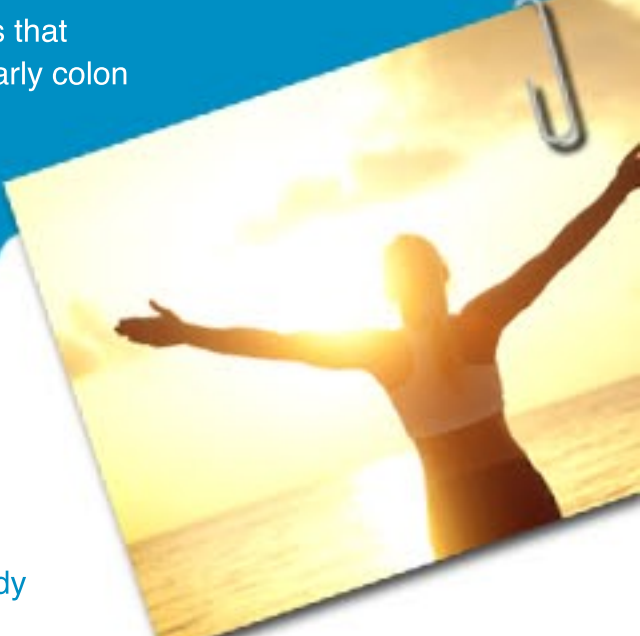


FUNCTIONS OF VITAMIN D

Other functions of vitamin D that people may be not as familiar with are cell growth, immune function and reduction of inflammation. Interestingly the benefits of vitamin D and our immune system have been recognised for about 25 or more years but it is only in the last few years that the significance of this has really come to the fore. There are two reasons as to why more focus has been placed on vitamin D and the immune system.

- Firstly there is increasing evidence to suggest that there might be a link between vitamin D insufficiency and immune disorders, particularly autoimmune diseases such as multiple sclerosis, type 1 diabetes and Crohn's disease.
- The second factor is that we now know that cells from the immune system contain all the functions required to convert vitamin D into its active form in the body.

These two factors suggest that vitamin D plays an important role in the immune system. There has even been some research in animals that suggests that vitamin D status could reduce cancer risk, particularly colon cancer although further research is needed before this becomes established as beneficial effect.



SUNLIGHT

As sunlight is such an important source of VITAMIN D for the body people who are at high risk of deficiency include elderly people who do not get sufficient skin exposure to sun along with a poor dietary intake, those who cover themselves for religious or cultural reasons, those with malabsorption conditions and those with kidney disease.

Another high risk group include breast fed babies as the VITAMIN D in the breast milk will be influenced by the mothers VITAMIN D status. Also certain medications may interfere with the body's conversion of VITAMIN D. Something else that needs to be considered is how we are encouraged to adhere to good sun protection to prevent the risk of sun cancer...the flip side of this is that by protecting our skin from the damaging effects of the sun we are also reducing our ability to make VITAMIN D from sunlight. Protecting our skin is a priority so what this means is that we need to be extra careful about getting enough in our diets. The absorption of VITAMIN D from sunlight can vary at different times of the day and year. In Ireland, very little if any VITAMIN D is absorbed through sunlight from October to end of March. During the summer months we absorb VITAMIN D from the sun especially between the hours of 11am and 3pm. So again great care needs to be taken with dietary sources of VITAMIN D in wintertime.

DIETARY FOOD SOURCES

Our vitamin D intake is affected by the Irish climate and our safe sun protection practices. This is why a good dietary intake of natural sources of vitamin D, supplements and food fortification are all important to help prevent low vitamin D status.

Oily fish e.g. herring, salmon, tuna, sardines, pilchards and mackerel, fish liver oils and egg yolks are among the best sources. There are also fortified foods available including dairy produce, e.g. supermilk, breakfast cereals and margarines. Supplements are necessary among some vulnerable groups.

DIETARY SOURCE	QUANTITY	VITAMIN D (µg)
EGG	1 EGG	1
COD LIVER OIL	5G/ TSP	10.5
SALMON (CANNED IN BRINE)	90G	8
STEAMED SALMON	110G/ DARNE	10
GRILLED MACKEREL	170G/ FILLET	15
SARDINES (CANNED IN OIL)	90G	7
SUPERMILK	100MLS	1
INFANT FORMULA	500 MLS	5.5 - 7.5



VITAMIN D SUPPLEMENTS

In Ireland the Food Safety Authority now recommends that all babies aged from 0-12 months are supplemented with vitamin D. It is particularly important for exclusively breast fed babies as the mother's vitamin D maybe low. This still means that breast is the best start for a baby and is recommended for at least the first six months of life but recent research shows us that we need to supplement with vitamin D to ensure that the baby is getting enough especially when there is such rapid growth in the first 12 months of a baby's life. There are vitamin D drops available from your pharmacy that are suitable for babies.

Other people who may benefit from supplementation are confined to indoors and elderly people. As we get older the skin synthesis of vitamin D can decrease. Currently a daily intake of 10 µg is recommended for adults aged 51-70 years.

However recent Irish research has shown that 89% of 51-64 year olds do not achieve the 10µg/day recommendation, with mean daily intakes (MDI) of vitamin D in men and women being 4.01 µg in men and 3.39 µg in women. Results like this show us that we need to concentrate on good dietary sources in the diet and supplementation should be promoted amongst our older population.

So with all of this evidence of the many benefits of vitamin D and our health it is no wonder that this vitamin has become so topical and we are trying to help people improve their intakes. Aim to include dietary sources in the diet like oily fish and during summer months in Ireland it is a good idea to expose the skin for 15-20 minutes a few times per week before applying you sun screen to get your supply from the sunshine. But for children and older people supplements may be a good option to ensure that they are reaching their recommended intake of vitamin D.

References

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