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So, what's new about Vitamin D?

Vitamin D is unique in that it can be produced in the body by exposing skin to sunlight. This fat-soluble vitamin is also found in fish and cheese and is added to a slew of products including milk and cereals.



the same for both the treatment and placebo group. However, there was a reduced risk of hip fractures in the subgroup that actually took both supplements as compared to the placebo group.

What it does

It's well known that vitamin D works to promote calcium absorption for strong bones. However, recent research also suggests that vitamin D may have important effects on the immune system and may help regulate cell growth and differentiation.

The old story: build bone

Vitamin D, along with calcium supplementation, may decrease the risk of bone loss, and thus, of bone fractures. In one placebo-controlled, seven-year study of vitamin D and calcium supplements involving 36,000 healthy women over fifty years of age, study results were mixed. A small increase in bone density was reported. Risk of fracture was

The new story: immune effects

Vitamin D has effects on the immune system that could be beneficial for people with MS. In studies of immune cells, vitamin D shows anti-inflammatory effects. In an animal model of MS, vitamin D supplementation reduced disease severity and vitamin D deficiency worsened it. Additionally, a large, ten-year study found that women who took vitamin D supplements were 40% less likely to develop MS. However, since this was not a placebo-controlled study, the decrease in MS risk may have involved many other factors.

Hints about preventing MS?

The geographical distribution of MS also suggests that vitamin D might

reduce risk. In regions where there is more sunlight and vitamin D blood levels are higher, there are fewer cases of MS than in those with less sunlight. People with MS tend to have lower than normal blood levels of vitamin D compared to the general population.

Many little studies

A small MRI study suggests that MS activity increases during winter. A two-year study of ten people who took cod liver oil (which contains vitamin D and omega-3 fatty acids) noted a lower exacerbation rate during treatment compared to the rate before treatment. A one-year study of 15 people with MS to test the safety of a form of vitamin D called calcitriol found participants having fewer exacerbations during the study than before it began, although the study was not designed to test this outcome.

However, a preliminary report on a short-term study of 11 people with MS treated with 19-nor, another form of vitamin D, did not produce significant benefits based on clinical tests or MRI.

These small studies hint at the possible potential of vitamin D, but they are too limited to provide compelling scientific evidence of benefit. Currently, there are well-designed long-term trials in progress that may clarify the role of vitamin D in MS within a few years.

What to do while we wait

Green light: It is clear that vitamin D and calcium supplements can increase bone density and may possibly decrease the risk of fractures. This is particularly important

for people with MS, who often have an increased risk of bone thinning. Vitamin D is safe at reasonable doses and is relatively inexpensive. The FDA approves of 200 IU for 19–50 year olds and 400 IU for people over 50. Doses higher than 2000 IU a day are considered risky.

Red light: Vitamin D supplements should be avoided or taken with close physician supervision by people with kidney disease, hypercalcemia, sarcoidosis, or hypoparathyroidism. Vitamin D may interfere with “cardiac glycosides” medications (digitoxin or digoxin, for example). There is a small increase in the risk of kidney stones. Other factors, including diet, medical history, and possible side effects should be balanced against the limited evidence of benefit. All these issues should be discussed with a physician or health care professional.

For a complete list of 11 published studies supporting this article, go to nationalmssociety.org/vitaminDstudies. ■

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It's important to tell your physician about any supplements or complementary treatments you are considering or taking. It's equally important that your physician listen respectfully to your questions and concerns regarding CAM.