What can I just take vitamin D and assume it is enough?



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The Same Dose of Vitamin D Does Not Work for Everyone

Greetings!

We often hear general suggestions about how much vitamin D to take. It is impossible to know how much might be "right" for one person to the next. In fact, among all adult D*action participants taking an average of 4,000 IU vitamin D per day from supplements, approximately 25% were still below the recommended 40-60 ng/ml.

Everyone responds differently to vitamin D... by up to 6 times for the same supplement amount! Whether getting your vitamin D from sun or supplement, several factors can affect how much vitamin D is made, absorbed, or converted for use in the body. The infographic below summarizes some of these different factors that can affect how much vitamin D the body may actually be getting on a daily basis.

EVERYBODY RESPONDS DIFFERENTLY TO VITAMIN D

..by up to 6 times for the same supplement amount!

We know we need vitamin D, but how much?

What is enough for one person may not be enough for you.



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The only way to know if you are getting enough or too much vitamin D is to test your level! Testing vitamin D levels versus blind supplementation is essential to know for sure if what you are taking is the right amount for you.

The following factors influence the variability in vitamin D doseresponse for each individual:

Co-Nutrient Intake. A lack of key vitamin D co-nutrients can keep vitamin D levels from rising or inhibit its proper use. Examples of important co-nutrients include magnesium, vitamin K2, calcium, and others.

Digestion. Certain digestive conditions such as irritable bowel disease, Crohn's disease, leaky gut, or celiac disease can limit the absorption of vitamin D in the gut. Those with diseases of the liver (e.g. fatty liver) or pancreas, who have had their gallbladder removed, or who have had bariatric surgery bypassing the small intestine are more likely to have trouble absorbing or metabolizing vitamin D. For these individuals, an increased dosage or other vitamin D metabolites may be needed (please consult with your physician if this is the case).

It is also important to take vitamin D with a fatty meal, as doing so can help increase absorption.

Body weight/BMI. Vitamin D, as a fat-soluble vitamin, has a higher affinity for the fatty tissues of the body. Therefore, those with a higher BMI will likely need to take a larger vitamin D supplement dose to achieve their target level.

Genetics. New research is showing that certain genetic variants can lead to decreased conversion of vitamin D within the body.

Medications and Conditions. A recent illness or injury may result in a lower vitamin D level. Digestive disorders, as mentioned above, can decrease absorption of vitamin D. Also, some drugs including statins, prednisone and weight-loss drugs can block vitamin D.

Age. With increased age comes a reduced ability to produce vitamin D in the skin in response to UVB exposure and a reduction in the kidney's ability to convert vitamin D to its active form.

What Additional Factors Affect Vitamin D Levels?

Sun Exposure: Where, When, How. If you're relying on sun exposure (or indoor UVB) for vitamin D, not exposing enough skin, high sunscreen use, or lack of mid-day (10 am – 2 pm) exposure will limit vitamin D production. Environmental factors such as smog and cloud cover or residing in a higher latitude will also reduce exposure to UVB radiation.

Skin Color. The amount of melanin in the skin influences vitamin D production. Someone with more melanin (darker skin) might need 30 minutes in the sun to achieve the same production of vitamin D that someone with less melanin (lighter skin) will achieve in 10 minutes. While some people can achieve very high levels (~60 ng/ml or 150 nmol/L) of vitamin D through regular sun exposure alone, others cannot achieve these levels without supplemental vitamin D.



Onwards!

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