



Source:

<https://draxe.com/nutrition/vitamin-d3/>

Vitamin D3 is one of the most buzzed-about supplements in the health industry. It's estimated that over [40 percent](#) of the population is [deficient in vitamin D](#), which plays a central role in everything from regulating mood to modulating immune cells in the body and beyond. Not only that, but it's one of the few nutrients that's difficult to get from food sources alone, making supplementation absolutely necessary in many cases.

So what's the difference between vitamin D vs. D3? And what is vitamin D3 good for? Keep reading for everything you need to know about this important micronutrient and how it can impact your health.

## What Is Vitamin D3?

So what is vitamin D3, and what does vitamin D3 do? Vitamin D3, also known as cholecalciferol, is a fat-soluble vitamin that is [involved](#) in bone health, immune function, cell growth and more. It's one of the few nutrients that your body is able to produce on its own through the skin cells in response to sun exposure. It can also be obtained through several [vitamin D food sources](#) and supplements as well.

Unfortunately, vitamin D deficiency is a common issue, and certain groups are at a higher risk of deficiency. In particular, older adults, those who get limited sun exposure, and people who are overweight/obese or have darker skin are at an increased risk.

Vitamin D3 vs. Vitamin D2

So what is the difference between vitamin D and vitamin D3? Vitamin D is available in two forms: vitamin D2 (ergocalciferol) and vitamin D3 (cholecalciferol). Vitamin D3 is primarily found in animal foods, such as fish, liver, eggs and cod liver oil. Meanwhile, vitamin D2 is mostly in [mushrooms](#) and fortified foods, such as cereal.

Both are also available in supplement form as well. The biggest difference between vitamin D2 vs. D3 actually lies in the way that they are metabolized in the body. In fact, one study [published](#) in the *Journal of Endocrinology and Metabolism* found that vitamin D3 was nearly twice as effective at increasing vitamin D levels in the blood compared to vitamin D2.

For this reason, it's generally recommended to select a vitamin D3 supplement whenever possible to optimize absorption and get the most bang for your buck. Taking a vitamin D3 supplement is an effective way to boost calcium absorption, promote bone health, support weight management and more.

## Vitamin D3 Benefits

1. Promotes Weight Loss
2. Boosts Bone Strength
3. Improves Immune Function
4. Enhances Mental Health
5. May Help Fight Cancer Cells

1. Promotes Weight Loss

Weight management is one of the most popular uses of vitamin D3. Interestingly enough, studies actually [show](#) that vitamin D levels

tend to be lower in people with higher amounts of body fat. Some research also suggests that supplementing with vitamin D could enhance weight loss and bump up [fat-burning](#). For example, a study [conducted](#) by the Department of Social and Preventive Medicine at Laval University in Canada demonstrated that supplementing with calcium and vitamin D increased weight loss and fat loss compared to a control group.

## 2. Boosts Bone Strength

Vitamin D is absolutely essential when it comes to bone health. In fact, one of the most serious vitamin D3 deficiency symptoms in children is [rickets](#), a condition characterized by a softening and weakening of the bones. One of the main ways that vitamin D boosts bone strength is by [promoting](#) the absorption of calcium, which is essential to maintaining skeletal integrity. Plus, it's also involved in the [metabolism](#) of phosphorus, another key mineral that is important to bone health.

## 3. Improves Immune Function

One of the most impressive benefits of vitamin D3 is its ability to enhance immunity and protect against infection. Not only can a deficiency in this important micronutrient slow wound healing and increase the risk of infection, but vitamin D3 is also [integral](#) to the function of immune cells in the body. According to one study by Dr. Ginde and colleagues, lower levels of serum vitamin D are actually [associated](#) with the a higher risk of recent respiratory tract infections, demonstrating just how crucial this vitamin is for immunity.

## 4. Enhances Mental Health

Some research shows that vitamin D could be beneficial for boosting mental health and brain power. Studies have found that vitamin D status could potentially be linked to issues like [depression](#), [anxiety](#), [Alzheimer's disease](#), [bipolar disorder](#) and [schizophrenia](#). What's more, one study conducted by the Washington University School of Medicine even showed that low levels of vitamin D were [tied](#) to low mood and impaired cognitive performance in older adults.

## 5. May Help Fight Cancer Cells

Although research is still limited on exactly how vitamin D3 can impact cancer growth in humans, in vitro research suggests that it may [affect](#) several aspects of cancer development, including tumor growth and cell death. Other studies have found that vitamin D deficiency may be linked to a higher risk of certain types of cancer, including breast, prostate, colorectal, ovarian, kidney and stomach cancers. However, further research is still needed to determine whether other factors may also be involved besides vitamin D3 levels.

## Vitamin D3 Foods

Adding a few vitamin D3 foods to your diet is a simple way to bump up your intake of this important fat-soluble vitamin. Here are a few of the top food sources of vitamin D3:

1. **Cod Liver Oil** — 1 tablespoon: 1,360 international units (over 100 percent DV)
2. [Wild-Caught Salmon](#) — 3 ounces: 447 IU (over 100 percent DV)
3. **Mackerel** — 3 ounces: 306 IU (76 percent DV)
4. [Tuna Fish](#) — 3 ounces: 154 IU (39 percent DV)
5. **Sardines** — 2 sardines: 47 IU (12 percent DV)
6. [Beef Liver](#) — 3 ounces: 42 IU (11 percent DV)
7. **Eggs** — 1 egg: 41 IU (10 percent DV)
8. **Caviar** — 1 tablespoon: 37 IU (9 percent DV)

## How to Get More in Your Diet

Sun exposure is one of the easiest and most effective ways to meet your vitamin D needs. For most, five to 30 minutes of sun exposure twice a week is enough to meet your daily needs. However, for others it can be difficult to get enough vitamin D from sunlight alone, especially during the winter or if you live in certain geographic areas. Older adults and those with dark skin also don't synthesize

vitamin D in the skin as efficiently and may need to include other sources of vitamin D in the diet to meet their requirements.

In addition to including a variety of vitamin D3 foods in your diet, taking a [vitamin D supplement](#) can also be incredibly useful. Taking vitamin D3, in particular, can help increase vitamin D levels in the blood to protect against deficiency.

## Vitamin D3 Supplements

Vitamin D supplements can be a quick and convenient way to meet your needs for this important fat-soluble vitamin, especially if you're at an increased risk of deficiency. If you do opt to take one, be sure to select vitamin D3 instead of vitamin D2 to maximize absorption and get the most value for your money. You should also take vitamin D with meals, as it requires a good source of fat to be absorbed in the body.

You may be wondering: [How much vitamin D3 should I take daily?](#) Currently, the recommended dietary allowance (RDA) for vitamin D is as follows:

- **400 IU:** infants 0–12 months
- **600 IU:** children and adults 1-70 years
- **800 IU:** adults over 70 years

However, many believe that the recommended vitamin D3 dosage should be even higher, and supplements often contain doses of up to 5,000 IU per day. Therefore, it's best to work with your doctor to determine the right dosage for you to prevent symptoms of deficiency.

### Precautions

So can you overdose on vitamin D3? And what happens if you take [too much vitamin D3](#)? Although the upper limit for vitamin D is

currently set at 4,000 IU per day, researchers believe that doses of up to 10,000 IU per day can be taken without symptoms of toxicity.

However, it's important to use supplements only as directed and avoid taking large amounts of vitamin D. Some of the potential [vitamin D3 side effects](#) may include abdominal pain, vomiting, nausea and confusion. If you notice any negative side effects after starting vitamin D3 supplementation, discontinue use and consult with your doctor.

Finally, be sure to consult with a trusted health care professional before starting supplementation if you have any underlying health conditions. In particular, vitamin D may worsen symptoms caused by issues like kidney disease and [hyperparathyroidism](#), as it increases calcium absorption in the body. If you're taking medications like diuretics, heart medications or antacids, you may also want to discuss with your doctor prior to starting supplementation to avoid adverse side effects.

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# TOP 8 VITAMIN D3 FOODS

#1 COD LIVER OIL



#2 WILD-CAUGHT SALMON



#3 MACKEREL



#4 TUNA



#5 SARDINES



#6 BEEF LIVER



#7 EGGS



#8 CAVIAR

