

# THORNE

Home / Take 5 Daily

## Take 5 Daily

Most Recent   **Articles**   Videos   Podcasts

Back

🔍 Search

### Seven Reasons to Know Your Vitamin D Level

April 8, 2019 • Jacqueline Jacques, ND



Vitamin D is a nutritional rock star these days. When once we only talked about its role in healthy bones, now we talk about its wide-reaching effects on multiple systems in the body.

Because achieving an optimal vitamin D level tends to be easy through getting enough sunlight, an adequate diet, and supplementation, knowing what your level is can help you optimize many areas of health.

Here are several things an optimal vitamin D level can support:

#### What's Trending

- 📄 The New Era of "Wellth" – Quantified
- 📄 2021 Wellth Report Findings: A Renaissance in Wellness
- 📄 Introducing Thorne Lab: The Future of Well Care

#### Get a Monthly Dose

Email address



News, videos, and Thorne stories delivered to your inbox each month.

## 1. Immune Balance

Most of the cells of your immune system have receptor sites for vitamin D, which tells you of vitamin D's importance. Vitamin D helps maintain what is called "innate immunity" – the first response your body has when it senses that something is amiss internally.

**This is why, when your vitamin D level is too low, your overall normal immune function can be compromised.**

## 2. Strong Muscles

Vitamin D contributes to the healthy functioning of muscle cells; in particular, how muscles use vital minerals like calcium and potassium to contract properly.

**Numerous studies show that when vitamin D levels are inadequate, muscle function suffers.**

Individuals with low D can have overall decreased muscle strength and decreased performance. This can be more profound in aging – especially if a deficiency is coupled with thinning bones – which can increase the likelihood of falls in older adults. A low vitamin D level has also been associated with otherwise unexplained muscle pain.

## 3. Metabolic Health

The secretion of insulin – the major hormone that regulates blood sugar – is partly under the control of vitamin D. This is especially true under times of stress or increased demand.

When the level of vitamin D is below the healthy range, it can be harder to regulate insulin levels and blood sugar. If this continues over time, it can promote the risk of chronic health conditions like diabetes.

## 4. Healthy Skin

Even though you get vitamin D in your diet, much vitamin D is made in your skin when you are exposed to sunlight. Although much of the vitamin D your skin makes travels elsewhere to support functions in the body, some stays locally and does its job in the skin.

**Vitamin D is important for producing skin cells, for healthy skin immunity, and for maintaining hair follicles.**

And while you need sunlight to make vitamin D, it also protects you from the negative effects of sun exposure. Finally, it also plays a role in repairing skin that has been cut or injured.

## **5. Mood Support**

Most people know that a little sunshine will boost their mood – but this isn't just because it feels good. Although the mechanism isn't fully understood, it is believed that vitamin D plays a role in regulating the brain's mood-boosting chemical serotonin.

**There are vitamin D receptors in nearly every part of the brain – and we have a lot to learn about them.**

What we do know is that a low level of vitamin D can place individuals at risk for low mood. Keeping your level normal might help reduce your odds of feeling blue.

## **6. Cardiovascular Health**

Vitamin D receptors are located in the heart and the blood vessels. So a healthy vitamin D level helps keep these tissues functioning optimally and plays a role in their recovery if injured.

Vitamin D also helps regulate an enzyme called renin. Renin is made in the kidneys and plays a very important part in how the body maintains normal blood pressure.

## **7. Bones, bones, bones**

Okay, we can't leave bones off the list. Bone is mostly made up of two minerals – calcium and phosphorus – and the protein collagen. Most people know that if calcium is lost from bone, then the bone becomes weaker and there is a greater risk of breaking a bone if you fall.

But calcium is only part of the story. By itself, calcium is not very smart. Vitamin D gives calcium instructions – directing it where it needs to go.

**You need vitamin D for calcium's optimal absorption in the gut, for maintaining a normal level of calcium in the blood, and for storing calcium in your bones.**

This is why you typically find some vitamin D in a calcium supplement and why milk is fortified with this vital nutrient. Maintaining your vitamin D level, along with getting adequate calcium and other supportive nutrients, will support bone health throughout life.

Thorne makes it easy for you to [check your vitamin D levels](#) from the comfort of your own home. Learn about our [home-test kit for vitamin D](#).

#### References

- Janssen H, Samson M, Verhaar H. Vitamin D deficiency, muscle function, and falls in elderly people. *Am J Clin Nutr* 2002;75(4):611-615.
- Heer M, Egert S. Nutrients other than carbohydrates: their effects on glucose homeostasis in humans. *Diabetes Metab Res Rev* 2015;31(1):14-35.
- Mostafa W, Hegazy R. Vitamin D and the skin: Focus on a complex relationship: A review. *J Adv Res* 2014;6(6):793-804.
- Giordano N, Goracci A, Fagioli A. Depression and vitamin D deficiency: Causality, assessment, and clinical practice implications. *Neuropsychiatry* 2017;7(5):606-614.
- Judd S, Tangpricha V. Vitamin D deficiency and risk for cardiovascular disease. *Am J Med Sci* 2009;338(1):40-44.
- Reid I, Bolland M, Grey A. Effects of vitamin D supplements on bone mineral density: a systematic review and meta-analysis. *Lancet* 2014;383(9912):146-155.

#### Keep Reading

# Bone & Joint

# Immune Support

# Vitamin D

# Heart & Vessels

© Thorne. All rights reserved. [Terms](#) [Privacy](#) [Proposition 65](#) [Accessibility](#) [Thorne HealthTech](#)

\* These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

© 2022 Thorne HealthTech, Inc. All rights reserved. [Privacy Policy](#) [Terms of Use](#)