

NUTRITION

Vitamin D

The sunshine vitamin

by **Abbey N. Folsom, MS**



Vitamin D deficiency is common. Even those of us living in the Sunshine State may not be achieving optimal Vitamin D intake.

Vitamin D is a fat-soluble vitamin that functions more like a hormone, and is important because it helps us absorb calcium and regulates bone metabolism. It works with other fat-soluble vitamins and minerals to facilitate genetic processes, including regulating cell growth and tissue repair.

It has been suggested that vitamin D helps to resolve hypertension or high blood pressure, which leads to cardiovascular disease. And, studies indicate that vitamin D decreases risk for common cancers.

DEFICIENCY

Your vitamin D level is best determined by a blood test that a doctor can order. Signs of vitamin D deficiency are not obvious, unless severe.

If you are vitamin D and calcium deficient, your risks are at the expense of your bone health – causing brittleness and fragility, and increased risk of bone fracture. The chronic effects of

long-term vitamin D deficiency results in osteoporosis, which affects millions of both men and women. The vitamin D deficiency conditions associated with grave malnutrition are called rickets in children and osteomalacia in adults.

Bone health is not the only condition affected by vitamin D status. Insufficient levels of vitamin D can exacerbate risks for cancer, cardiovascular disease and autoimmune diseases such as rheumatoid arthritis, type I diabetes mellitus, and multiple sclerosis.

SOURCES OF VITAMIN D

We get vitamin D through our diet, exposure to sunlight and supplements.

DID YOU KNOW . . . ?

- >> **Vitamin D2** is an organism derived from algae, fungi, or yeasts.
- Vitamin D3** is animal based, usually fish oil or lanolin. Vitamin D3 is thought to be better absorbed.
- >> Certain medications and diseases can impair vitamin D levels.

According to the National Institute of Health, Office of Dietary Supplements, vitamin D food sources include fatty fish such as herring, mackerel, salmon, sardines, swordfish and tuna, as well as egg yolk, liver, some mushrooms and fortified foods and beverages, including fortified soy products. Vitamin D and cod liver oil supplements are available.

We also get vitamin D from the sun. UVB rays convert the cholesterol in our skin into vitamin D. Clothing, shade, pollution, melanin content of skin, and sunscreens that block UVB rays can inhibit this natural process. However, UVA radiation causes skin cancer.

Eating fatty fish along with vitamin D supplements is the most effective way to ensure sufficient vitamin D levels. Fatty fish produce concentrated vitamin D from the algae that the fish eat. Taking organism-derived vitamin D supplements and eating fortified foods is an option for vegetarians and vegans.


SUPPLEMENTATION

According to the Institute of Medicine, the recommended dietary allowance (RDA) of vitamin D is 600 IUs per day.

Breastmilk does not contain enough vitamin D for babies; therefore, supplements are encouraged. Babies need 400 IU per day. For people over 70 years of age, the RDA is 800 IUs per day.

Megadosing on supplements is never a good idea. The tolerable upper level intake of vitamin D is 4000 IUs per day for ages nine and older. For babies, the upper level intake is 1000 IUs per day. Children ages one through eight years, the upper level is 2500 IUs per day.

Without taking supplements, you would have to eat pounds of fish and egg yolks per week, and risk skin cancer from prolonged sun exposure to reach optimal vitamin D status. That's why vitamin D supplements are a recommended alternative.

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VITAMIN D QUIZ

- 1) Egg whites contains vitamin D.
True or False
- 2) An optimal dietary source of vitamin D includes which of the following:
 - a. Salmon and sardines
 - b. Chicken and lean beef
 - c. Egg yolks and fortified milk
- 3) It is recommended that skin exposure for 15-20 minutes in the sun enhances vitamin D synthesis.
True or False
- 4) Most people need at least 600 IUs of vitamin D per day.
True or False
- 5) Breastfed babies do not require vitamin D supplementation.
True or False

QUIZ KEY:

5. False
4. True
3. True
2. A, C
1. False



SECURITY

Password Safety

Protecting yourself against data breaches

by **Michael van Zwieten**
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We hear news reports almost daily about various organizations that have been breached. Recently, it was disclosed that **MySpace** had more than 359 million accounts breached, **LinkedIn** had 164 million and **Adobe** had 152 million.

Ashley Madison, Yahoo, Tumblr, Snapchat, Forbes, Dominoes, Comcast and **Sony** have been compromised as well. The list goes on and on.

Password management is key to keeping your personal information safe. If you signed up for an account on any of these sites before they were breached, there's a good chance that your user account (email address) and password, address, credit cards, or other personal information have been compromised. Once this information is stolen, it is in the hands of hackers. Your information is being bought, sold and shared with others, who may be actively using it against you.

It is imperative that you don't use the same password everywhere, as this is the most common cause for your account getting hacked at multiple locations.

Websites, such as haveibeenpwned.com/, allow you to check your email account(s) against compromised databases. This will give you an idea if and from which site(s) your data may have been stolen.

In today's world, it is important to follow a couple of password best practices, including;

- 1) Use different levels of passwords for your different types of accounts
 - a. An easy/common password for sites you don't mind if they get hacked (one-time use sites, discussion forums, etc.);
 - b. A more difficult password for social media-type sites, or sites that you shop from;
 - c. More difficult and unique passwords for your email accounts;
 - d. A unique password/fingerprint login for your mobile device(s);
 - e. A unique password at your worksite;
 - f. A unique password for your bank; and
 - g. A unique pin number for your debit/credit card.

- 2) Use multi-factor authentication whenever it's available! Bank and financial websites, social media, email accounts, etc. are all now starting to offer this service. Multi-factor requires you to use both your username/password combo, but must also provide a unique code that is sent to you via text or an authentication app on your phone. These codes are usually six-digits that change every 60 seconds, making it impossible for someone to access your account even if your password is stolen.

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