



Importance of Vitamin D - by Heather Buren

Unlike other nutrients, Vitamin D isn't really a vitamin at all, though scientists refer to it as such. It's actually a steroid hormone, made by your body as you are exposed to sunlight. It is also acquired from food sources or supplementation. It has an important role in maintaining bone strength and though not yet scientifically proven, there is tons of evidence to suggest that vitamin D helps in preventing [breast cancer](#), [colon cancer](#), [prostate cancer](#), [heart disease](#), [depression](#) and [weight gain](#). Of course, other lifestyle factors are also important in preventing cancer, such as nutrition, exercise, sleep, and managing stress. However, vitamin D's critical importance seems to grow with every emerging study.

A simple blood test will tell you your vitamin D serum level and most insurance will cover this simple test. Ask your Doctor. It's recommended you check your level every three to six months, because it takes at least three months for it to stabilize after a change in sun exposure or supplement dose.

The window you're shooting for is 50 to 70ng/ml. To put this in perspective, if your levels are above 20, you're safe from rickets. Above 30, your gums will be healthy. Above 40, you receive great cancer benefits.

The best way to [optimize your vitamin D level](#) is through sun exposure. As a very general guide, you need to expose about 40 percent of your entire body to the sun for approximately 20 minutes between the hours of 10 am and 2 pm. Difficult if to achieve in the summer if you live in the city. Though twenty minutes of sun exposure to the face, legs, or back -- without sunscreen -- at least twice a week should give you plenty of vitamin D, but this much direct sun exposure might also expose you to potentially dangerous levels of cancer-causing UV radiation. It gets confusing and the information can be conflicting as you just read about sunscreen protection.

Another way to meet your vitamin D requirements is through the foods you eat. Surprisingly few foods contain vitamin D -- unless it's added to the food. That's because your body is built to get vitamin D through your skin (from sunlight) rather than through your mouth (by food).

There are three vitamin D super foods:

- Salmon (especially wild-caught)
- Mackerel (especially wild-caught)
- Mushrooms

Other food sources of vitamin D include: Cod liver oil, Tuna canned in water, eggs, Sardines canned in oil, Milk or yogurt -- regardless of whether it's whole, nonfat, or reduced fat -- fortified with vitamin D, Beef or calf liver.

Supplements are the third route to take and there are boat loads of options and dosage recommendations. Oral or topical drops are offered.

If you're using an oral supplement, recent studies suggest adults need about 8,000 IU's of oral vitamin D3 per day in order to get serum levels above 40 ng/ml. I take a D3 serum daily, in the form of drops, recommended by my doctor. Doesn't matter the route of a supplement, but make sure it is in fact vitamin D3, not D2.

Again remember that the most important factor is your vitamin D serum level. It doesn't matter how much time you spend in the sun, or how much vitamin D3 you take: if your serum level is low, then you're at risk, plain and simple. And the only way to know your serum level is to test it.

Women Firefighters Biomonitoring Collaborative Study Update

I've got great news..The grant we submitted to CBCRP in March was awarded to us... \$600,000 over 3 years! We will conduct a study to assess chemical exposures, including exposure to chemicals linked to breast cancer, among women firefighters.

There will be lots more information to follow as we start to recruit participants. I'd like to outline the general methodology we will use to give you an idea how the study will look. We will recruit 80 women firefighters from the SFFD and 80 women from other civil services. We will interview and collect blood and urine samples from each woman. We will measure exposures to certain chemicals with potential links to increased breast cancer, including products of combustion that firefighters may frequently encounter. We will also use an innovative method called Time of Flight to measure chemicals that we might not otherwise suspect to find in the participants. This may reveal chemical exposures that have never before been measured. Finally, we will measure early indicators of adverse health outcomes, including changes in thyroid hormones, melatonin levels, and altered telomere length, which may be related to chemical exposure or night shift work.

Combined results will be made available to all participants, firefighters and civil employees. Individual results will be made confidentially available to individual participants who want them.

To our knowledge, this is the first study of its kind, ANYWHERE! Thanks to 798, the Cancer Prevention Foundation, and the Chief for your support, time and money given to help UFSW in this project. The work is just beginning, but I'm so excited to jump in!

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UFSW Steering Committee