# The importance of vitamin D, especially in the winter

## By Sam Pollock

There are many different vitamins that are all important, but one that Montanans are often deficient in is vitamin D.

As we enter the winter months with fewer daylight hours than ever, it's a good time to think about ways to boost our vitamin D intake. Keeping up on your vitamin D can promote strong and healthy bones, boost your immune system, and support your mental health.

### Why is vitamin D important?

The human body is a complicated machine with many working parts, many that can only be seen on a microscopic scale. Our bodies require many different materials to function appropriately and keep us moving on a day-to-day basis. Some of them our body can create on its own, but some we can only gain through our diet. This is one of the definitions of a vitamin: a substance that is essential for normal human growth and nutrition that cannot be synthesized by the body on its own.

Vitamin D is an essential nutrient our body needs to help us absorb calcium and phosphorus from the foods we eat, two important building blocks for strong bones and teeth. Because of this, severe vitamin D deficiency can lead to osteomalacia or rickets (soft, brittle bones) in adults and children.

However, vitamin D isn't a one-trick pony. It is also involved in your body's immune system, nervous system and musculoskeletal system. Because of this, even a mild deficiency can have more subtle symptoms such as fatigue, muscle weakness, pain, cramping, more frequent illness and depression.

#### Why could I be deficient?

Vitamin D deficiency is a very common problem. In the United States, nearly four out of every ten people are vitamin D deficient. Vitamin D is sometimes called the "sunshine vitamin". Our body can get it in two ways, by our diet or by sunlight through our skin. In our modern lifestyle, many people spend more time indoors than outdoors, limiting their time spent in sunlight generating vitamin D.

Even when outdoors in Montana, we are exposed to less direct sunshine than those living further South and near the equator. People with darker skin tones are also much more likely to become vitamin D deficient because melanin in the skin will decrease the amount of absorbed sunlight that can be used to synthesize vitamin D.

#### How to get more vitamin D

Everyone needs vitamin D in their diet, and doctors recommend most people need 600 IU (international units) daily. Eating vitamin D heavy foods like rainbow trout and salmon can help balance the lack of sunshine. Dairy is also a good source of vitamin D, with milk, yogurt and cheese being the most common sources. Mushrooms, orange juice and almond milk are also good sources.

For some, even a mindful diet isn't enough to supplement their vitamin D needs. If you are showing signs of a vitamin D deficiency your doctor may recommend an over-the-counter vitamin D supplement daily, or a prescription strength dose taken once a week. After appropriate supplementation many people find their symptoms such as fatigue or depression resolve after a few weeks to a few months.

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