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Seasons of Vitamin D

Forget about fall, winter, spring, and summer—consider for a moment what it would be like if we had only two seasons. For the sake of argument we could call these seasons D+ and D-. I know it's not very catchy and sounds too much like bad report card, but the names could be up for discussion. What is interesting about these two seasons, unlike our current ones, is that they could predict with startling accuracy our risk for developing a multitude of diseases or disorders. For instance, we could predict that during the D+ season (April – September) most of us would have pretty good health in general.

Unfortunately, the D- season (October – March) would be another story altogether. During this season we would see relative decreases in immune system function, and increases in conditions such as influenza and the common cold. We could also expect an increased incidence of many autoimmune and inflammatory disorders such as type I diabetes, multiple sclerosis, arthritis, and cardiovascular disease. In addition, people that live farther north would have a longer D- season, putting them at greater risk for many of these conditions. With regards to one particular nutrient, vitamin D, these are the seasons that we go through every year. And research is showing us that our health is paying the consequences for these extended D- seasons.

As many of you know, our bodies are able to make vitamin D when our skin is exposed to sunlight. In fact, 10-15 minutes of whole body exposure to peak summer sun can release up to 20,000 International Units (IU's) of vitamin D into circulation. This is 50 times the recommended daily intake! However, here in northern Wyoming the sun's rays are too weak to stimulate vitamin D production from October – March. This means that since around mid-October we have been trying to fulfill our vitamin D needs entirely from what we eat, and many researchers are saying that this isn't nearly enough. There are few good natural sources of vitamin D, and foods that are fortified (milk, for example) have such small amounts that they do little, if anything, to increase our bodies' stores.

So what can we do, barring migrating south for the winter? Some tanning beds *may* help, but they need to have bulbs that emit UV-B rays to stimulate vitamin D production. However, when skin health is taken into consideration this is considered a risky practice, no matter what type of bulbs they have. Many experts are saying that supplementation during the winter months is necessary to keep our vitamin D levels from dropping too low. In fact, many of the top researchers in the world are recommending intakes of at least 1,000 IU/day. Though quite a bit higher than the 400 IU/day recommended by our government for most adults, intakes at this level have been proven safe and effective in maintaining healthy vitamin D stores.

With the month of February in full swing, many of our bodies are experiencing their D- season—putting our health status at risk. Visit with your health care provider to see if vitamin D supplementation is appropriate for you. By maintaining proper vitamin D levels we can keep our bodies in a D+ season year-round. *Kentz Willis, M.S., is the University Extension Educator in Nutrition and Food Safety for Sheridan and Johnson counties. He can be reached via email at kwillis3@uwyo.edu.*