Vitamin D is kind of a big deal...

August is Vitamin D Awareness Month.

Most Wyomingites are deficient. This important vitamin affects numerous body functions.

Most vitamins in our body come from outside sources like food, but vitamin D is different. We humans make it ourselves. What’s even more interesting is that it’s not really a vitamin, it’s a seccesteroid, a hormonal precursor similar to steroids like cortisol, testosterone, and cholesterol.

When UVB light from the sun hits our skin and interfaces with a form of cholesterol called 7-dehydrocholesterol, vitamin D3 (cholecalciferol) is born. But it still has to go through the liver and kidneys to become the activated form of vitamin D we can use, called calcitriol.

Once in the activated form, it can bind to docking stations located in just about every tissue in the body called vitamin D receptors (VDR). In fact, VDR’s are located in the brain, heart, skin, gonads, prostate, breast, and there’s even VDR activation in the intestine, bone, kidneY, and parathyroid gland cells.

Why is that important?
It means vitamin D is involved in brain function, cardiovascular health, immune support, bone and joint health, and just about every process critical to keeping us alive. It’s also considered essential due to a few of these more specific roles:

- Promoting the mineralization and growth of bones
- Activating killer T-cells for defense against infections and bacteria
- Reducing chronic inflammation
- Modulating the expression of genes that regulate cell proliferation, apoptosis, and differentiation, (suggesting a potential connection to cancer when deficient)

(continued...)
Vitamin D is found in many dietary sources, such as fish, eggs, fortified milk, and cod liver oil. The sun also contributes significantly to the daily production of vitamin D, and as little as 10 minutes of exposure is thought to be enough to prevent deficiencies. The term "vitamin D" refers to several different forms of this vitamin. Two forms are important in humans: ergocalciferol (vitamin D2) and cholecalciferol (vitamin D3). Vitamin D2 is synthesized by plants. Vitamin D3 is synthesized by humans in the skin when it is exposed to ultraviolet B (UVB) rays from sunlight. Foods may be fortified with vitamin D2 or D3.

The major biologic function of vitamin D is to maintain normal blood levels of calcium and phosphorus. Vitamin D aids in the absorption of calcium, helping to form and maintain strong bones. It is used, alone or in combination with calcium, to increase bone mineral density and decrease fractures. Recently, research also suggests that vitamin D may provide protection from osteoporosis, hypertension (high blood pressure), cancer, and several autoimmune diseases.

Rickets and osteomalacia are classic vitamin D deficiency diseases. In children, vitamin D deficiency causes rickets, which results in skeletal deformities. In adults, vitamin D deficiency can lead to osteomalacia, which results in muscular weakness in addition to weak bones. Populations who may be at a high risk for vitamin D deficiencies include the elderly, obese individuals, exclusively breastfed infants, and those who have limited sun exposure. Also, individuals who have fat malabsorption syndromes (e.g., cystic fibrosis) or inflammatory bowel disease (e.g., Crohn’s disease) are at risk.

But vitamin D is even more important for people with Celiac Disease... As it turns out, vitamin D deficiency is common in Celiac Disease and occurs in both autoimmune conditions and IBD (inflammatory bowel disease). It’s even more important if you’ve been prescribed corticosteroids like Prednisone. Research shows they can interfere with your body’s utilization of vitamin D, contributing to bone loss and osteoporosis. Here’s why that’s a problem: vitamin D deficiency feeds two heads of the Celiac Disease monster, leaky gut and inflammation. Let’s start by looking at how vitamin D impacts a leaky gut.

**VITAMIN D CAN STOP YOUR INTESTINES FROM LEAKING**

Research is beginning to show that vitamin D Deficiency leads to a comprised mucosal barrier and we know that reversing leaky gut is critical to reversing Celiac Disease.

The tight junctions in your small intestine contain an adhesion junction around them help regulate what gets in and what stays out. It’s like a “rubber band” wrapped around the tight junctions that can get too stretched out and lose its elasticity (ability to snap back in place). Vitamin D plays a critical role in the elasticity of those rubber bands and how well they keep the tight junctions operating normally. So if you’re deficient in vitamin D, the elastic band holding your tight junctions together doesn’t work properly... allowing foreign material to leak into your body and promoting inflammation.

**VITAMIN D HELPS PUT THE FIRE OUT**

Vitamin D plays a critical role in modulating the immune system and down-regulating inflammation when the fire burning inside gets too hot. Vitamin D can even inhibit the development of autoimmune diseases like IBD, RA, and MS... creating a well tuned immune system that’s much less inflammatory. The immune system relies heavily on vitamin D to calm it down by regulating T cells and cytokines. When you’re deficient, inflammation rages inside you like an out of control freight train. The bottom line is: vitamin D deficiency in Celiacs could be making leaky gut and inflammation worse... that’s why I believe it’s the number one supplement for everyone with Celiac Disease.

Excerpted from Mayo Clinic and “Why Everyone with Celiac Disease Desperately Needs Vitamin D” by Jordan Reasoner, SCD Lifestyle

Visit a WHF event to get your Vitamin D and Celiac screenings today!

View our calendar of events at [HTTP://WOW.WHF.TO](HTTP://WOW.WHF.TO)
We go on diets all the time—low fat, low carb, very low calorie, high protein, raw foods, grapefruit only, cabbage only, vegetarian, hormone-assisted—either to bulk up or to slim down. We want to lose weight or gain muscle. It’s a voluntary intense effort to make a change of lifestyle to get healthier, or to get stronger, or to be in the scene with the latest trend.

But I am different. And maybe you are, too. I have been diagnosed with Celiac disease. My doctor made the life-changing declaration “You cannot eat gluten, ever!” It wasn’t a recommendation, or great idea, or a friendly health tip. It was written on the green-tinted pad and then it entered my official medical record. It was a serious prescription. It was, and is, the only treatment for a disease that has no cure.

With the declaration, I knew my life would never be the same. When I walked out of the doctor’s office, I was almost panic-stricken. What in the world was I going eat?

As a newbie to celiac disease, which is also known as gluten sensitivity, it seemed the whole world was filled with sticky, caramel-covered raised doughnuts and foot-long breadsticks—beautiful and plump to see and smell, but knowing I can never consume, taste, or eat it again in my life! I was frustrated. Gluten seemed to be everywhere, surfacing in everything, appearing in such odd places as soy sauce, seasonings, and even my low-calorie orange drink!

Celiac disease may be discovered at any age, from infancy through adulthood. The disorder is more commonly found among white Europeans or in people of European descent. It is very unusual to find Celiac disease in African or Asian people. The prevalence seems to be different from one European country to another, and between Europe and the United States. This may be due to differences in diet or in recognition of the disease. Because of the known genetic component, relatives of patients with Celiac disease are considered at higher risk for the disorder.

As more is learned about celiac disease, it becomes evident that it has many variations which may not produce typical symptoms. It may even be clinically “silent,” where no obvious problems related to the disease are apparent.

And I finally have a precious opportunity to heal, to feel better, in fact to be better than I’ve been in years! So this is a good thing!

~ Tammy’s Corner ~

“Go outside, soak up some sunshine and get moving! Take advantage of this summer to increase your activity levels. It only takes 21 days to create a new habit and now is the time to start that healthy habit!”

Wyoming On Wellness

The Vitamin D Council is a nonprofit organization, working to educate the public on vitamin D, sun exposure and health. Utilize their knowledge for further information on exposure levels for your region, age, and ethnicity. They also provide necessary over-the-counter supplement tips. Please share your vitamin D levels with your doctor before beginning any vitamin regimen.

WWW.VITAMINDCOUNCIL.ORG
Sit for 60. Move for 3.

the concept
Throughout your work day, remember to only sit for 60 minutes at a time. Then get up and move for 3 minutes. Meetings need to follow this guideline as well.

simple solutions
• set timer on your computer, cell phone or watch for every 60 mins
• walk the perimeter of your building or office
• walk back and forth in nearby hallway
• go outside and walk to your car and back
• stretch at your desk
• walk to the printer room and back several times
• if driving, pull-over and get out of vehicle for light stretching and walking
• jump up and down. get moving!

Isaac Newton stated an object in motion will stay in motion unless acted upon by an equal or stronger force. Use your will for good. Keep wellness on your mind.

Oily Fish: Your Route to Vitamin D

Oily, or fatty fish, contain about 15% healthy fat, whereas white, or non-oily, fish contain less than two percent.

Which fish are at the head of the class?
• Salmon
• Trout (go fishing this summer!)
• Mackerel
• Herring
• Sardines
• Kipper
• Whitebait
• Tuna (fresh)

Vitamin D-Rich Salmon
(Serves 4)

You’ll need:
Four salmon fillets, or about 1 pound
1 cup plain, Vitamin-D fortified yogurt
1/2 cup mayonnaise
1/2 cup mustard
1/3 tsp dried (or 1 tsp fresh) thyme
1 tsp dried (or 1 tbsp fresh) oregano
1/3 tsp dried (or 1 tsp fresh) basil
2 tsp dried (or 2 tbsp fresh) dill

Preheat oven to 375. Mix yogurt, mayonnaise and mustard in a bowl, then add thyme, oregano and basil. Arrange salmon on a baking sheet, top with yogurt, mayonnaise and mustard mixture, then sprinkle with dill. Bake for 30-40 minutes.