The Gluten Effect

How Gluten Sensitivity Can Disrupt Your Hormones and Your Life

By Dr. Vikki Petersen

When we talk about the gluten effect, we’re basically talking about how gluten, a protein found in wheat, rye and barley, can have far-reaching negative effects upon your health. If you’re suffering from obesity to fatigue, depression to headaches, arthritis to digestive problems, gluten sensitivity may very well be at the root of your symptoms. Gluten can also affect your hormonal health by stressing the adrenal glands, causing adrenal fatigue and a number of hormone-related health problems.

The Adrenal Glands: Hormone Central

The adrenal glands sit above your kidneys and release hormones into your bloodstream, and likewise respond to feedback from other hormones and chemicals in your body. Their main role is repair and anti-aging. When the adrenal glands become exhausted from chronic stress, they cannot keep up with all the demands made upon them and catabolism (think "cannibalism") or a breakdown of systems occurs. This catabolism results in your body’s systems becoming incapable of repairing themselves; as a result, their function slowly begins to deteriorate. This leads to fatigue, depression, loss of libido and hormonal imbalance symptoms such as PMS and hot flashes, to name a few.

Gluten Sensitivity

Gluten sensitivity puts direct stress on your adrenal glands. This stress comes from the inflammatory response created in a gluten-sensitive person’s digestive tract. When gluten creates an inflammatory reaction, it is the balancing efforts of the hormonal pathways that "cool off" the stress and create an anti-inflammatory response. If this happened only occasionally, it wouldn’t upset the adrenals’ ability to function optimally. But in patients with gluten sensitivity (40 percent of the population, by current estimates) this inflammation occurs every time they eat any gluten, which can be several times per day.
So, the adrenals are getting stressed by all the inflammation gluten is creating in the intestines. When this stress becomes chronic due to an individual continuing to consume gluten in their diet, many symptoms are created due to a phenomenon called "adrenal exhaustion."

**Adrenal Exhaustion Caused by Gluten**

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<th>Common Symptoms of Adrenal Exhaustion Caused by Gluten Sensitivity</th>
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<td>Difficulty waking in morning</td>
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<td>Joint and muscle aches</td>
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Under normal conditions, the adrenals make a hormone called *pregnenolone* (think of it as the "mother hormone"). Pregnenolone is the basic building block of many of the hormones the adrenal glands make, including the sex hormones. These hormones - DHEA, estrogen, testosterone and progesterone - need to be maintained in proper balance to prevent such conditions as PMS, anxiety and infertility.

When chronically stressed, something has to give; the adrenal glands cannot keep up with all their duties. In a very interesting process known as "pregnenolone steal," the adrenal glands literally "steal" pregnenolone to make the basic hormone the adrenal gland utilizes for energy production, leaving sex hormone production lacking. This "borrowing from Peter to pay Paul" phenomenon results in a host of symptoms associated with hormonal imbalance.

**PMS and menopausal symptoms** are associated with gluten sensitivity and adrenal exhaustion in this manner. Recall that the adrenal gland produces reproductive hormones, and that pregnenolone serves as the
building block for other hormones. Under normal conditions, ample pregnenolone exists for conversion to
those hormones, but when stressed, pregnenolone is diverted instead.

**Health Consequences**

What does this mean? When your body has been under chronic stress, it is forced to make a decision: It can
get you through the day, putting one foot in front of the other, or it can make adequate amounts of sex
hormones. It can’t do both because it’s too stressed. When put in this situation, your body decides the most
pro-survival thing to do is to get you through the day, to the detriment of making sex hormones. This
insufficient production of hormones does not occur evenly across the board, however; progesterone tends to
fall more dramatically than does estrogen, resulting in a net estrogen dominance.

Symptoms of estrogen dominance include cramping, heavy bleeding, menstrual irregularity, endometriosis,
polycystic ovaries, fibrocystic breasts, migraines and PMS. Major symptoms of progesterone deficiency
beyond the above is infertility and miscarriage, along with depression and anxiety.

Joint aches and pains can also be created from adrenal exhaustion. In a normal, healthy body, wear and tear
on the joints is offset by natural cortisol (a hormone) production from the adrenal glands as they respond to
minor joint inflammation in day-to-day living. But when the adrenals are overwhelmed, even minor
inflammation persists and eventually can cause significant swelling and/or pain in the joint areas. The
ligaments that keep your joints in good alignment and ready to react to movement become lax. Over time,
joint pains, muscle spasms and limitations of movement can occur that can elude the best intentions of
chiropractors, physical therapists and massage therapists.

**What You Can Do**

A patient suffering from structural pain seeks out the help of a practitioner who specializes in addressing
such areas of the body. In the presence of adrenal exhaustion, such treatment will usually have only
temporary results, to the frustration of the patient and practitioner alike. If the underlying root cause is truly
adrenal exhaustion, this must be addressed to completely resolve the symptoms of pain and spasm.

Treatment for adrenal stress revolves around lifestyle management (timing of meals, amount of sleep and
exercise), identifying any food sensitivities, and using nutritional support to strengthen adrenal function.
Supplements such as vitamins B5, B6 and C, whole-root licorice extract and certain forms of ginseng can all
be supportive.
Gluten sensitivity is treated by following a strictly gluten-free diet. Complete avoidance of all products containing wheat, rye and barley is the only treatment. (Oats should also be avoided due to cross-contamination, but gluten-free oats are available.) Identifying and treating other issues such as adrenal fatigue and secondary infections are also important in order to regain full health.

The presence of gluten sensitivity and its resultant stress upon the adrenal glands is common, but rarely diagnosed. As a result, millions of women suffer with symptoms that are often correctable with simple diet, nutrition and lifestyle changes. And these are completely natural ways to improve your health; treating gluten sensitivity and adrenal exhaustion does not require drugs or surgery.

Ask your doctor about gluten sensitivity, particularly if you are experiencing symptoms that could be related to adrenal fatigue. There are lab tests available that test for both. It will give you and your doctor a good sense of how your adrenals are functioning and whether your symptoms are attributable to adrenal stress potentially caused by gluten.

Gluten, Gluten Everywhere...

Beer and bread - Copyright à Stock Photo / Register Mark If you’re sensitive or intolerant to gluten, avoiding it can be a real challenge. Just consider how many products contain wheat, rye or barley; most cereals, breads and pastas, just for starters. (The next time you’re in the grocery store, check out the labels of a few of your favorite foods and see which ones are likely to contain gluten.) Gluten is also found in a number of processed foods, including salad dressings, egg substitutes, flavored potato chips, imitation crab and even beer.

If you think you can get away with eating foods that contain gluten, bear in mind that while sensitivity can cause a variety of unpleasant symptoms, gluten intolerance or celiac disease is even more problematic, because gluten actually triggers the body’s immune system, which affects nutrient absorption and can lead to malnutrition, anemia, osteoporosis and other major health problems.

Source: WebMD

Vikki Petersen, DC, CCN, is the founder of the HealthNOW Medical Center in Sunnyvale, Calif., and the author of The Gluten Effect: How "Innocent" Wheat Is Ruining Your Health.