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- 2. Gluten** – There is such a buzz in the media about gluten being bad for some people... but WHY? What is it? What does it do? How do I find out if I have a gluten allergy or celiac disease? And everything you want to know about Gluten by leading integrative MD Mark Hyman.
- 3. Gout** can make some people's lives extremely painful and most treatments only seem to reduce or stop attacks when they have started. Here is some research and information on how to potentially stop gout from starting.

PCOS or Polycystic Ovarian Syndrome is a condition effecting over 10% of women in the United States and yet many women don't even know they have it. Are you or a friend experiencing hair loss, facial hair, infertility or weight gain around the stomach? If so make sure you read this article or share it with your friend.

By Corey Schuler, DC, MS, LN

Dr. Corey Schuler is NHI's National Educator. Dr. Schuler is a practicing doctor of chiropractic, has a master's in clinical nutrition and botanical medicine, is a licensed nutritionist and holds certifications in acupuncture, kinesiology, holistic and functional medicine. He has held numerous education roles and currently teaches at the School of Applied Clinical Nutrition at New York Chiropractic College. In addition Dr Schuler held the position of Medical Educator at Emerson Ecologics the leading distributor to integrative practitioners in the US.

Polycystic Ovarian Syndrome (PCOS)

Perhaps the most common cause of female-factor infertility in developed nations is polycystic ovarian syndrome (PCOS) which has been estimated at up to 10% of the total population.¹ Symptoms include irregular or unpredictable menstrual cycles, unwanted hair growth, acne or scalp hair loss, unexplained weight gain or impaired weight loss. Infertility may also be an issue and may be associated with recurrent first trimester miscarriage. Half of PCOS sufferers complain of infertility during their first visit to a provider.

PCOS patients additionally have increased risk of cardiovascular disease, diabetes, and certain cancers.

Polycystic ovarian syndrome (PCOS) is characterized by some or all of these symptoms: hirsutism (excessive body hair), virilism (man-like features), hyperandrogenism (high levels of testosterone and other male-type hormones), menstrual irregularities, chronic anovulation, obesity, insulin resistance, acanthosis nigricans (a skin condition), high concentrations of luteinizing hormone (LH) and ovarian cysts.^{3,4} Two of these appear to be primary. First, hyperandrogenism, or excess male-type hormones including testosterone and 5-dihydrotestosterone (DHT), dehydroepiandrosterone (DHEA) and DHEAS, and androstenedione (A4). This appears to have both ovarian and adrenal origin in PCOS. Second, insulin resistance and the resultant high levels of insulin in PCOS is at the level of the receptor and not due to excessive pancreatic function.²

The most recent definition known as the Modified NIH Criteria is probably the best at this time:

- 1) androgen excess (clinical or biochemical assessment)
- 2) ovarian dysfunction (oligo-anovulation and/or ovarian morphology) and
- 3) exclusion of other androgen excess or ovulatory disorders.⁵

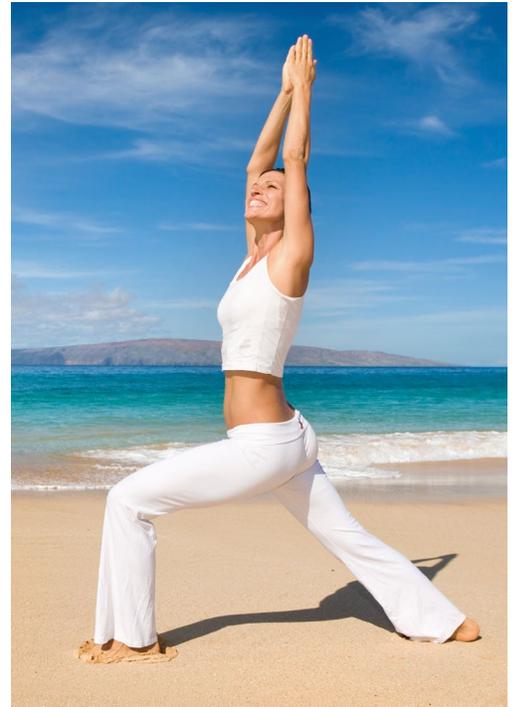


It is important to note that other conditions can mimic PCOS such as long-term exposure to high levels of cortisol. Therefore your practitioner may order a pelvic ultrasound to detect ovarian cysts.

Certain medications can also cause high male-type hormones. Antiepileptic drugs such as valproic acid or valproate may stimulate excess androgens. PCOS is more common among those women who also have epilepsy or seizure disorders, but the medications themselves may have mechanisms that stimulate reproductive abnormalities.^{6,7}

With all of these factors in mind your practitioner may order some or all of the following tests:

- History of medication use and menstrual cycle
- Pelvic ultrasound for ovarian morphology
- Oral glucose tolerance test (OGTT)
- Fasting insulin and fasting glucose and/or hemoglobin A1c
- Complete thyroid panel including TSH, Total T4, Free T4, Total T3, and Free T3
- Serum Testosterone, DHEAS, Sex-hormone binding globulin (SHBG), LH, FSH, and prolactin, and estrogens
- Bodyweight and/ or anthropomorphic measures



Treatment

The conventional treatment for PCOS is oral contraceptives (OC) to reduce hyperandrogenism and glucophage (Metformin) to improve insulin sensitivity, and clomiphene is often used for ovulation stimulation.

Contraceptive medication (i.e. “the pill”) may indeed shift hormone levels; however, women wishing to conceive cannot rely on contraceptives to balance their hormone levels. Additionally, these medications can create drug-induced nutrient depletions such as zinc insufficiency or various B-vitamin insufficiencies including folate, B-6, and B-12. These insufficiencies then lead to new or exacerbations of other symptoms not thought to be directly related to PCOS such as depression, anxiety, digestive distress, or fatigue due to poor red blood cell formation.

Insulin resistance must be aggressively addressed. Obese patients with a body mass index greater than 30 may require a medically supervised weight loss program. High intensity, interval training may additionally help. You should expect to eat 5-6 small meals per day. Artificial sweeteners including aspartame, sucralose, saccharin, and acesulfame potassium should be eliminated. Many people look to natural sweeteners such as stevia and agave nectar but PCOS sufferers may not tolerate these well either.

– Natural products that address insulin resistance	Chromium, Cinnamon, Myo-inositol, D-pinitol, N-acetylcysteine, Vitamin C, Vanadium
– Natural products that address follicular arrest	Vitamin D, Calcium
– Natural products that increase SHBG (sex hormone binding globulin)	Green tea, Soy isoflavones, Ground Flax seeds
– Natural products that decrease testosterone	Omega-3 fatty acids, Licorice root (under medical supervision or approval if high blood pressure)
– Natural product that inhibits 5-alpha reductase which slows the conversion of testosterone to DHT	Saw palmetto



While all of the above options address individual aspects of PCOS an overall support of the hypothalamic-pituitary-adrenal-ovarian axis is critical. While many adaptogenic herbs have been suggested, to date the only ingredient with clinical evidence demonstrating statistically significant rebalancing of hormones has been a proprietary formulation of maca (*Lepidium peruvianum* Chacon) phenotypes called Maca-GO®. While maca has been touted as a potential savior for women wanting to balance hormones more in depth research has shown that there are in fact several different types of maca. These different types are different colors, have different DNA, in some case different active ingredients and have been shown in clinical research to have different physiological effects on the body. Because of this research into individual phenotypes or specific combinations for men or women have been conducted over the last ten years. While results in men have been relatively successful across the board, research into balancing women's hormones has not. To date the only clinical evidence of statistically significant rebalancing of hormones in women has been different from Maca-GO® a specific phenotype combination for women which is also highly concentrated with active ingredient levels 10-20 times what is found in raw maca. In addition the bioavailability is nearly 50% higher than raw maca also explaining the superior results. Since that time additional research has demonstrated that a combination of Maca-GO® plus specific phenotypes of maca found in the product Femmenessence MacaHarmony® is optimal in clinical use as the first line therapy for hormone imbalance. Working via the hypothalamus-pituitary-adrenal-ovarian (HPAO) axis Femmenessence MacaHarmony® has been shown to modulate several of the above factors and reduce the number of products needed to support the PCOS patient. Instead of introducing hormones into the body to manipulate and control hormonal profiles, Femmenessence MacaHarmony® enables the body to balance and correct its own imbalance. This when combined with other specific herbal and nutritional support and an exercise program, as discussed above, can provide the ideal support for PCOS.

Polycystic ovarian syndrome can be treated using a natural approach of diet, lifestyle, and supplementation in most cases. Pharmaceutical measures are required in some cases depending upon the patient's preferences, goals, and severity of the condition

For more information on PCOS and how to support it please contact Dr. Schuler at corey.schuler@naturalhi.com

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Gluten: What You Don't Know Might Kill You

By Mark Hyman, MD

Mark Hyman, MD has dedicated his career to identifying and addressing the root causes of chronic illness through a groundbreaking whole-systems medicine approach known as Functional Medicine. He is a family physician, a four-time New York Times bestselling author, and an internationally recognized leader in his field.

Dr. Hyman graduated with a B.A. from Cornell University, and graduated magna cum laude from the Ottawa University School of Medicine. He completed his residency at University of San Francisco's program in Family Medicine at the Community Hospital of Santa Rosa.

Something you're eating may be killing you, and you probably don't even know it! If you eat cheeseburgers or French fries all the time or drink six sodas a day, you likely know you are shortening your life. But eating a nice dark, crunchy slice of whole wheat bread—how could that be bad for you? Well, bread contains gluten, a protein found in wheat, barley, rye, spelt, kamut, and oats. It is hidden in pizza, pasta, bread, wraps, rolls, and most processed foods. Clearly, gluten is a staple of the American diet. What most people don't know is that gluten can cause serious health complications for many. You may be at risk even if you don't have full blown celiac disease. I want to reveal the truth about gluten, explain the dangers, and provide you with a simple system that will help you determine whether or not gluten is a problem for you.



The Dangers of Gluten

A recent large study in the Journal of the American Medical Association found that people with diagnosed, undiagnosed, and "latent" celiac disease or gluten sensitivity had a higher risk of death, mostly from heart disease and cancer.¹

This study looked at almost 30,000 patients from 1969 to 2008 and examined deaths in three groups: Those with full-blown celiac disease, those with inflammation of their intestine but not full-blown celiac disease, and those with latent celiac disease or gluten sensitivity (elevated gluten antibodies but negative intestinal biopsy).

The findings were dramatic. There was a 39 percent increased risk of death in those with celiac disease, 72 percent increased risk in those with gut inflammation related to gluten, and 35 percent increased risk in those with gluten sensitivity but no celiac disease.

This is ground-breaking research that proves you don't have to have full-blown celiac disease with a positive intestinal biopsy (which is what conventional thinking tells us) to have serious health problems and complications—even death—from eating gluten.

Yet an estimated 99 percent of people who have a problem with eating gluten don't even know it. They ascribe their ill health or symptoms to something else—not gluten sensitivity, which is 100 percent curable.

And here's some more shocking news ...

Another study comparing the blood of 10,000 people from 50 years ago to 10,000 people today found that the incidences of full-blown celiac disease increased by 400 percent (elevated TTG antibodies) during that time period.² If we saw a 400 percent increase in heart disease or cancer, this would be headline news. But we hear almost nothing about this. I will explain why I think that increase has occurred in a moment. First, let's explore the economic cost of this hidden epidemic.

Undiagnosed gluten problems cost the American healthcare system oodles of money. Dr. Peter Green, Professor of Clinical Medicine for the College of Physicians and Surgeons at Columbia University studied all 10 million subscribers to CIGNA and found those who were correctly diagnosed with celiac disease used fewer medical services and reduced their healthcare costs by more than 30 percent.³ The problem is that only one percent of those with the problem were actually diagnosed. That means 99 percent are walking around suffering without knowing it, costing the healthcare system millions of dollars.

And it's not just a few who suffer, but millions. Far more people have gluten sensitivity than you think—especially those who are chronically ill. The most serious form of allergy to gluten, celiac disease, affects one in 100 people, or three million Americans, most of who don't know they have it. But milder forms of gluten sensitivity are even more common and may affect up to one-third of the American population.



Why haven't you heard much about this?

Well, actually you have, but you just don't realize it. Celiac disease and gluten sensitivity masquerade as dozens and dozens of other diseases with different names.

Gluten Sensitivity: One Cause, Many Diseases

A review paper in *The New England Journal of Medicine* listed 55 "diseases" that can be caused by eating gluten.⁴ These include osteoporosis, irritable bowel disease, inflammatory bowel disease, anemia, cancer, fatigue, canker sores,⁵ and rheumatoid arthritis, lupus, multiple sclerosis, and almost all other autoimmune diseases. Gluten is also linked to many psychiatric⁶ and neurological diseases, including anxiety, depression,⁷ schizophrenia,⁸ dementia,⁹ migraines, epilepsy, and neuropathy (nerve damage).¹⁰ It has also been linked to autism.¹¹

We used to think that gluten problems or celiac disease were confined to children who had diarrhea, weight loss, and failure to thrive. Now we know you can be old, fat, and constipated and still have celiac disease or gluten sensitivity.

Gluten sensitivity is actually an autoimmune disease that creates inflammation throughout the body, with wide-ranging effects across all organ systems including your brain, heart, joints, digestive tract, and more. It can be the single cause behind many different "diseases." To correct these diseases, you need to treat the cause—which is often gluten sensitivity—not just the symptoms.

Of course, that doesn't mean that ALL cases of depression or autoimmune disease or any of these other problems are caused by gluten in everyone—but it is important to look for it if you have any chronic illness.

By failing to identify gluten sensitivity and celiac disease, we create needless suffering and death for millions of Americans. Health problems caused by gluten sensitivity cannot be treated with better medication. They can only be resolved by eliminating 100 percent of the gluten from your diet.

The question that remains is: Why are we so sensitive to this "staff of life," the staple of our diet?

There are many reasons ...

They include our lack of genetic adaptation to grasses, and particularly gluten, in our diet. Wheat was introduced into Europe during the Middle Ages, and 30 percent of people of European descent carry the gene for celiac disease (HLA DQ2 or HLA DQ8), (xii) which increases susceptibility to health problems from eating gluten.

American strains of wheat have a much higher gluten content (which is needed to make light, fluffy Wonder Bread and giant bagels) than those traditionally found in Europe. This super-gluten was recently introduced into our agricultural food supply and now has "infected" nearly all wheat strains in America.

To find out if you are one of the millions of people suffering from an unidentified gluten sensitivity, just follow this simple procedure.

The Elimination/Reintegration Diet

While testing can help identify gluten sensitivity, the only way you will know if this is really a problem for you is to eliminate all gluten for a short period of time (2 to 4 weeks) and see how you feel. Get rid of the following foods:

- Gluten (barley, rye, oats, spelt, kamut, wheat, triticale—see www.celiac.com for a complete list of foods that contain gluten, as well as often surprising and hidden sources of gluten.)
- Hidden sources (soup mixes, salad dressings, sauces, as well as lipstick, certain vitamins, medications, stamps and envelopes you have to lick, and even Play-Doh.)

For this test to work you MUST eliminate 100 percent of the gluten from your diet—no exceptions, no hidden gluten, and not a single crumb of bread.

Then eat it again and see what happens. If you feel bad at all, you need to stay off gluten permanently. This will teach you better than any test about the impact gluten has on your body.



But if you are still interested in testing, here are some things to keep in mind.

Testing for Gluten Sensitivity or Celiac Disease

There are gluten allergy/ceeliac disease tests that are available through Labcorp or Quest Diagnostics. All these tests help identify various forms of allergy or sensitivity to gluten or wheat. They will look for:

- IgA anti-gliadin antibodies
- IgG anti-gliadin antibodies
- IgA anti-endomysial antibodies
- Tissue transglutaminase antibody (IgA and IgG in questionable cases)
- Total IgA antibodies
- HLA DQ2 and DQ8 genotyping for celiac disease (used occasionally to detect genetic susceptibility).
- Intestinal biopsy (rarely needed if gluten antibodies are positive—based on my interpretation of the recent study)

When you get these tests, there are a few things to keep in mind.

In light of the new research on the dangers of gluten sensitivity without full blown celiac disease, I consider any elevation of antibodies significant and worthy of a trial of gluten elimination. Many doctors consider elevated anti-gliadin antibodies in the absence of a positive intestinal biopsy showing damage to be “false positives.” That means the test looks positive but really isn’t significant.

We can no longer say that. Positive is positive and, as with all illness, there is a continuum of disease, from mild gluten sensitivity to full-blown celiac disease. If your antibodies are elevated, you should go off gluten and test to see if it is leading to your health problems.

So now you see—that piece of bread may not be so wholesome after all! Follow the advice I’ve shared with you today to find out if gluten may be the hidden cause of your health problems.

Simply eliminating this insidious substance from your diet, may help you achieve lifelong vibrant health.

For references or to comment, visit Dr. Hyman’s site at <http://drhyman.com/gluten-what-you-dont-know-might-kill-you-11/>

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Gout can make some people's lives extremely painful and most treatments only seem to reduce or stop attacks when they have started. Here is some research and information on how to potentially stop gout from starting.

By Corey Schuler, DC, MS, LN

Chronic Gout

Chronic gout is an inflammatory form of arthritis that can affect one joint such as the great toe, often referred to as podagra, or multiple joints affecting spinal, knee, and ankle joints. Unlike osteoarthritis, joints affected by gout are often warm to the touch and may be accompanied by a mild fever. Uric acid crystals develop in the fluid of the joint, causing the pain.

The prevalence of gout was 3.9% among US adults in 2007-2008. This equates to approximately 8.3 million adults. It is about three times more common in men but affects women as well.. Researchers say in the study that the prevalence of gout in the U.S. has more than doubled since the 1960s.¹

Chronic gout with high uric acid levels, also known as hyperuricemia, typically includes times of acute pain, sending some people into emergency rooms. Chronic gout has been labeled a condition that certainly alters quality of life, but many forget that it may be very serious. For example, the conclusion of one study was that about two out of every five people with gout had chronic kidney disease. Furthermore, uric acid level control in gout was poor among those without chronic kidney disease and even worse among those with chronic kidney disease.²

Practitioners often look at uric acid levels and X-rays of the affected joint(s). However, lab tests alone do not necessarily suggest gout. Also X-rays may be normal when gout is present. Some people will develop tophi, or small stone-like structures, just beneath the skin, in advanced stages. A biopsy can be done medically to be certain of the cause of the affected joint, but this is not done for everyone as some people find it invasive. A very similar condition to gout is pseudogout. Pseudogout is most often a condition of the elderly. Palliative pain medications are used both in gout and pseudogout, but uric acid lowering medications do not generate relief in pseudogout.³

Cochicine (Colcrys), allopurinol (Lopurin or Zyloprim) and febuxostat (Uloric) are the typical medications used.

Vitamin C over several months may reduce uric acid levels. Quercetin, a flavonoid found in apples and onions has shown promising basic science effects on the enzyme involved in high uric acid levels. Black cherry and celery seed have been touted in the treatment of gout. Black cherry is rich in antioxidants which may support the inflammation produced during an acute episode. Celery seed supports kidney function and contains a particular chemical that works like some of the drugs used for gout (allopurinol and febuxostat). Inositol may work in the same way. Black cherry, celery seed, and inositol appear to be helpful only in the exacerbation of chronic gout or acute gout attacks. They are not suspected to reduce frequency of acute episodes.

Some diet and lifestyle changes may help prevent gouty attacks:

- Avoid alcohol
- Reduce your intake of purine-rich foods such as anchovies, sardines, oils, herring, organ meat (i.e. liver), legumes (dried beans and peas), gravies, mushrooms, spinach, asparagus, cauliflower.
- Limit how much animal protein you eat at each meal.
- Avoid fatty foods such as salad dressings, ice cream, and fried foods.
- Acute or rapid weight loss may cause uric acid kidney stones to form.

Gout is prominent in diets rich in meats and otherwise acid-producing diets. Dehydration and poor kidney function are additionally necessary for high uric acid levels.

Systemic alkalization, support of liver and kidney function along with hydration techniques would appear to be the first line of defense from a functional perspective.

Certain medications can increase uric acid levels. Tuberculosis drugs and certain drugs used in organ transplant cause hyperuricemia. Nicotinic acid, as a drug or dietary supplement may also be implicated and is a common therapy for cholesterol, especially low HDL (good) cholesterol. More commonly, salicylates found in aspirin and white willow bark as well as cold and flu over-the-counter (OTC) medications can raise uric acid. You should tell your treating practitioner about all of the OTC medicines, vitamins, minerals, herbs, and supplements. This includes those that you may believe are irrelevant or if you have confidence that your practitioner is familiar with the product.



Practical solutions include

- High-plant, nutrient dense diets that support alkalization versus acidification of tissue
- Hydration with trace minerals
- Selected natural products that support the complete metabolism and excretion of uric acid

Our investigation into the topic has led to an integrated approach. Research into a particular strain of alfalfa rich in fatty acids, vitamins, minerals, and amino acids supports multiple contributions of gout. Some health professionals report using this particular strain in extremely high concentrations (40:1) - commercially known as pH Quintessence, and have seen very positive outcomes. Physicians have reported a reduction in uric acid with pH Quintessence when combined with a low-purine diet and lifestyle modifications even when other natural products or medications failed. Interestingly, the addition of sole (so-lay) therapy using Original Himalayan Crystal Salt has further added to the benefits. Potassium and the alkalizing power of trace minerals are used to prevent urine acidity rising again and thus someone becoming at risk of kidney stones re-forming. And it can reduce the risk of excess uric acid turning into gout crystals and causing a gout attack. Trace minerals can be a missing link in a gout support protocol. Sole is a supersaturated solution of Original Himalayan Crystal Salt in pure water. One teaspoon of sole is added to 8 ounces of water, up to twice per day. Original Himalayan Crystal Salt has advantages over sea salt and other salts in that it contains 82 other trace minerals in addition to sodium and chloride and a certificate of analysis can be produced to validate this content.

“My husband has suffered from acid reflux and gout for several years. About a month ago we started taking sole every day. His acid reflux has dramatically improved, but unfortunately his gout hasn’t. He is still having extreme pain and nothing seems to be helping it. Will continuing with the sole eventually help the gout to go away and how long will it take before he sees an improvement? Is there anything else he could be doing to stop it from flaring up?”

One month later: “Update: I ordered the Quintessence for my husband and he has been using it for 2 weeks. For the first time in over 4 months he has no gout pain. Thank you!”

Jean Powers, Saskatchewan, Canada

“Taking the pH Quintessence everyday has helped me fight gout attacks.”

T. H., Manager Pharmaca the leading integrative pharmacy chain in the United States

For more information on how to support Gout please email our medical team at medical.team@naturalhi.com

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