

5 Ways Grains Can Destroy Your Skin

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STORY AT-A-GLANCE

- › While you may take great care with the outside of your skin each day, the foods you're eating may be doing greater damage
- › Close to 6% of people in the U.S. are gluten-sensitive, affecting your blood glucose, insulin resistance and triggering skin damage
- › Some grain products can act like wheat, increasing gut permeability and overall inflammation in your body

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You may prudently care for your skin each day, cleansing, exfoliating, moisturizing and hydrating. But, did you know that the sandwich you had at lunch may be doing more damage to your skin than skipping one of your nightly rituals?

Your skin is the largest organ in your body, responsible for temperature control, protection and excreting toxins to name just a few. Far from being an inactive covering for your internal organs, your skin is an intricate system of nerves, glands and cell layers that plays a fundamental role in your overall health and wellness.

If you want to protect your skin, age gracefully and reduce problem breakouts, it is time to care for your skin in the same way you care for your heart, control your weight and lift your mood. In other words, pay attention to the foods you eat every day.

Wheat is one of the grains in many of the processed foods at your grocery store that interferes with a healthy complexion and contributes to psoriasis and eczema outbreaks. Proteins in wheat are responsible for inflammation and changes to your gastrointestinal tract, nervous system and cardiovascular system.

Number of People With Gluten Sensitivity Rising

The extreme form of gluten sensitivity, celiac disease, affects people differently. Over 200 symptoms have been attributed to the condition. Approximately 1 in 133 people in the U.S. suffer from celiac disease¹ and close to 6% suffer from gluten sensitivity.² Dr. Alessio Fasano is the director for Celiac Research and the chief of pediatric gastroenterology and nutrition at Massachusetts General Hospital. In a Celiac Disease Foundation blog, Fasano said:³

"We also know that prevalence is rising and we're in the midst of an epidemic. Based on our study it seems that prevalence has doubled every 15 years in North America.

Why? I think it goes back to the microbiome. There are antibiotics, our diet has changed, we travel more. There have been so many changes in the past 50 years ... We don't digest gluten completely, which is unlike any other protein. The immune system seems to see the gluten as a component of bacteria and deploys weapons to attack it, and creates some collateral damage we call inflammation."

In the press release announcing the publication of his book, "Gluten Freedom," Fasano said:⁴

"We've shown now that gluten sensitivity actually exists. It's moved from a nebulous condition that many physicians dismissed to a distinctly identifiable condition that's quite different than celiac disease. Gluten sensitivity affects six to seven times more people than celiac disease."

5 Skin Conditions Triggered by Grains

There are several different skin conditions associated with the changes that happen in your body when you eat wheat and other gluten-containing foods. Whether you have celiac disease or a gluten sensitivity, you are at higher risk for suffering these skin conditions when you eat gluten:

- **Acne** – This skin condition affects nearly 80% of all people between ages 11 and 30 in Western cultures.⁵ In contrast, the condition is virtually nonexistent in primitive societies. Hunter-gatherer communities in Paraguay were observed for three years, during which no acne on individuals were found.⁶

The type of symptoms from gluten sensitivity are different from celiac disease, but both include an increase in adult onset acne.⁷ Researchers have found a link between what you eat, how it affects your brain and your skin.⁸

- **Atopic dermatitis** – Researchers have found that atopic dermatitis is three times more likely in people with celiac disease and two times more likely in families who have members with celiac disease.⁹
- **Psoriasis and eczema** – Psoriasis is uncomfortable and sometimes disfiguring, while eczema is a term applied to a wide range of different rashes that are itchy, red and dry.

One-third of the U.S. population will experience eczema at some point in their lives. Prevalence at least doubled between 1995 and 2008. Eczema is driven in part by an allergic response and often linked to other allergic reactions, such as asthma, allergic rhinitis and acid reflux.¹⁰

Psoriasis often affects large areas of skin and is an immune reaction linked to grain proteins, namely gliadin. In a study published in the British Journal of Dermatology, participants who tested positive for antibodies to gliadin improved when they were placed on a gluten-free diet.¹¹

The National Psoriasis Foundation also recommends those with celiac disease or a gluten sensitivity adhere to a gluten-free diet to reduce or eliminate their symptoms.¹²

- **Recurrent aphthous stomatitis (RAS)** – Although they appear similar on the surface, these mouth ulcers or canker sores are not related to cold sores caused by the herpes virus. They can be a minor annoyance or become so painful they inhibit eating and speaking.

In a paper published in BMC Gastroenterology,¹³ the authors propose that RAS may be the only visual symptom of gluten sensitivity and recommend patients presenting with RAS are evaluated also for celiac disease.

- **Vitiligo** – In this skin condition, the pigment is lost, causing white patches to appear. Although not dangerous, it can have a profound effect on an individual's life. A case report of a 22-year-old young woman with vitiligo was published in Case Reports in Dermatology.¹⁴

After previously undergoing medical therapy without success, she was placed on a gluten-free diet. Partial, but rapid repigmentation occurred in the first month and stabilized after four months of remaining gluten-free. The authors suggest that diet modifications, including a gluten-free diet, should be considered for treatment of vitiligo.

Wheat Proteins Cause Problems

You may have learned that whole grain foods are a healthy addition to your dietary plan. However, according to a growing number of experts, including Loren Cordain, Ph.D., professor at Colorado State University and an expert on Paleolithic lifestyles featured in the video above, humans are not designed to digest grains. He explains:¹⁵

"There's no human requirement for grains. That's the problem with the USDA recommendations. They think we're hardwired as a species to eat grains. You can get by just fine and meet every single nutrient requirement that humans

have without eating grains. And grains are absolutely poor sources of vitamins and minerals compared to fruits and vegetables and meat and fish."

Two of the substances found in wheat responsible for many of the associated cellular problems you face are:

- **Gliadin** – Gliadin is the primary immunotoxic protein found in wheat gluten and is among the most damaging to your health. Gliadin gives wheat bread its doughy texture and is capable of increasing the production of the intestinal protein zonulin, which in turn opens up gaps in the normally tight junctures between intestinal cells (enterocytes).

If you suffer from celiac disease, your body will make antibodies to gliadin, resulting in damage to the delicate, absorptive surfaces of your intestines. Many people who have gluten sensitivities also experience adverse effects of the gliadin protein. This may explain why research is clearly demonstrating an increase in intestinal permeability after exposure to gliadin in those with and without celiac disease.

- **Lectins** – Lectins are a key mechanism plants use to protect themselves and perpetuate the plant species. They are found in highest concentration in their seed form. When animals eat foods with lectin they may experience digestive irritation; the degree of which depends upon through how many generations the animal has been eating the particular plant food.

Humans have been consuming unsprouted grains for approximately 500 generations, and we suffer more than some rodents and birds that have adapted over thousands of generations. Bread wheat has played a prominent role in lectin-induced adverse effects since it is a relatively new form and contains a wheat germ agglutinin (WGA), not eliminated through sprouting and found in higher concentrations in whole wheat.

Other Grains Act Like Wheat

If you suffer from celiac disease or have a gluten sensitivity you may want to avoid all types of gluten to reduce your potential for skin problems. There are other non-wheat grains, and even some vegetables, that have similar properties to wheat. The following foods contain chitin binding lectins that are similar in nature to wheat lectin (WGA) described above. Chitin binding lectins and wheat lectins are functionally identical and may cause similar responses in your body.

- Barley
- **Potato**
- Rice
- Rye
- Tomato

Gut Permeability Releases Toxins

Gluten increases the permeability of your intestinal tract, also called leaky gut. Gaps develop between the cells that make up the lining of your intestines, allowing undigested food, bacteria and metabolic waste products to leak into your blood stream. Hence, the name leaky gut syndrome. These foreign substances challenge your immune system and increase inflammation in your body.¹⁶

Research published in Gut Pathogens has theorized that an inflammatory response that starts in your gut will spread through the rest of your body and affect your skin.¹⁷ Researchers called it the gut-brain-skin connection.¹⁸

Glutinous proteins, called prolamines, increase the permeability of your intestinal tract, sensitizing your immune system and contributing to worsening acne. Leaky gut syndrome may be associated with inflammatory bowel diseases, such as Crohn's and ulcerative colitis, but even those without illness can have varying degrees of intestinal permeability.

Blood Sugar and Insulin Spikes Affect Your Skin

Wheat affects both your blood sugar levels and your release of insulin. Wheat is a carbohydrate and once metabolized increases your blood glucose levels and triggers the release of insulin and insulin-like growth factor, called IGF-1. This growth factor may increase the secretion of male hormones, such as testosterone.

The release of male hormones is not enough to trigger growth of secondary sex characteristics, such as hair or muscle growth, but may be enough to increase the secretion of sebum. This is a greasy substance on your skin that traps acne-promoting bacteria. IGF-1 may also cause skin cells known as keratinocytes to multiply, a process associated with acne.

Individuals who have an increase in intestinal permeability may also experience a release of insulin when the immune system is activated by the bacteria and protein invaders. This results in both an increase of IGF-1 and an increase in your risk of developing insulin resistance and Type 2 diabetes.¹⁹

However, it isn't only wheat that spikes your blood sugar and insulin release. I strongly recommend you consider focusing on eating a diet high in whole foods, with little to no processed foods.

A study found in the American Journal of Clinical Nutrition found young men who suffered from acne exhibited significant improvements in both acne and insulin sensitivity after eating a low-glycemic diet for 12 weeks.²⁰ Another study demonstrated that a high glycemic diet and frequent dairy consumption are also linked to acne.²¹

The Paleolithic Option

Controlling acne requires a whole-body approach. Removing wheat and gluten from your diet is highly recommended to reduce inflammation and your potential for further skin damage.

Thousands of years ago, during the Paleolithic period, people were hunter-gatherers and ate primarily the meat they could hunt and plants from their environment. Missing from this ancestral diet was refined sugars, [high fructose corn syrup](#) or refined wheat products – ingredients we now know are strongly associated with insulin resistance and poor health.

It was only after the introduction of these processed foods that people began to experience the symptoms of leaky gut syndrome. Returning to a diet made almost exclusively of whole foods including organic, pastured meats and dairy products with non-genetically engineered (non-GE) plants may help you become healthier and enjoy clearer skin. As Cordain states:²²

"Normalizing your system is the true strength of the so-called caveman diet. By eating foods that are concordant with your genetic ancestry, you can avoid many of the diseases associated with our modern diet.

... This genetic discordance ultimately manifests itself as various chronic illnesses, which have been dubbed 'diseases of civilization.' By severely reducing or eliminating these foods and replacing them with a more healthful cuisine, possessing nutrient qualities more in line with the foods our ancestors consumed, it is possible to improve health and reduce the risk of chronic disease."

Sources and References

- ¹ [Celiac Disease Foundation](#)
- ² [World J Gastroenterol. 2017 Oct 28; 23\(40\): 7201–7210](#)
- ³ [Dr. Alessio Fasano Speaks Out About Celebrity Gluten-Bashing, Celiac Disease Research - Celiac Disease Foundation. \(2014\)](#)
- ⁴ [The World's Leading Expert on Gluten-Related Disorders, Dr. Alessio Fasano, Sets the Record Straight in His Definitive New Book. \(2016\)](#)
- ⁵ [Fast Facts About Acne. \(2016\). Niams.nih.gov](#)
- ^{6, 10} [Prevention. Is Grain the Reason Your Skin Keeps Freaking Out? March 13, 2015](#)
- ^{7, 17} [The Huffington Post. Retrieved 1 September 2016](#)
- ^{8, 18} [AC, B. \(2016\). Acne vulgaris, probiotics and the gut-brain-skin axis - back to the future? - PubMed - NCBI](#)
- ⁹ [Celiac Disease and Dermatologic Manifestations: Many Skin Clue to Unfold Gluten-Sensitive Enteropathy](#)

- ¹¹ Michaëlsson G, et al. (2016). Psoriasis patients with antibodies to gliadin can be improved by a gluten-free diet
- ¹² Complementary and Alternative Therapies: Gluten-Free Diet | National Psoriasis Foundation. (2016) (Archived)
- ¹³ Gluten sensitivity enteropathy in patients with recurrent aphthous stomatitis
- ¹⁴ Karger.com. Retrieved 1 September 2016
- ¹⁵ Loren Cordain – Leaky Gut, Whole Grains, Potatoes & Autism. (2011). Me and My Diabetes. Retrieved 1 September 2016
- ¹⁶ Dr. Fasano on Leaky Gut Syndrome and Gluten Sensitivity | Gluten-Free Society. (2011). Gluten-Free Society
- ¹⁹ Inflammation and insulin resistance. *Journal Of Clinical Investigation*, 116(7), 1793
- ²⁰ A low-glycemic-load diet improves symptoms in acne vulgaris patients: a randomized controlled trial
- ²¹ *Journal of the Academy of Nutrition and Dietetics*, February 20, 2013
- ²² Saving Our Kids, Healing Our Planet. The Pearls and Perils of the Paleo Diet. February 13, 2015