

Ultraprocessed Foods Increase Psoriasis Risk and Worsen Inflammation

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STORY AT-A-GLANCE

- › People with the highest consumption of ultraprocessed foods had a 23% higher risk of developing psoriasis compared to those who ate the least, based on a 12-year study of 121,019 participants
- › Replacing just 5% of UPFs with unprocessed foods lowered psoriasis risk by 14%, and replacing 20% dropped it by 18%, making this a powerful prevention strategy
- › Seed oils and additives in UPFs fuel chronic inflammation and increase body mass index (BMI) – two factors that significantly raise your chances of developing autoimmune skin disorders like psoriasis
- › If you're genetically at risk for psoriasis, eating a high-UPF diet increases your likelihood of developing the condition by 2.7 times compared to those with low genetic risk and low UPF intake
- › Reducing seed oil intake and restoring vitamin D levels through safe sun exposure or supplementation helps repair immune function and strengthens your skin's natural defenses

Psoriasis is an immune-related condition characterized by red, scaly, itchy patches that often flare up on your elbows, knees, scalp, hands, feet, and even nails. While it looks like a rash, it's not just a skin issue. Rather, it's an autoimmune disease that results when your immune system goes haywire, speeding up the life cycle of skin cells.

Today, psoriasis affects 2% to 3% of the world population.¹ People who struggle with psoriasis often rely on medications like steroids to prevent flare-ups and keep the symptoms under control. However, there's one overlooked factor that could be triggering this condition and worsening your inflammation levels — your food choices.

Eating Ultraprocessed Foods Is Associated with a Higher Risk of Psoriasis

A recent study published in *Nutrients*² set out to understand whether ultraprocessed foods (UPFs) play a role in the development of psoriasis. Researchers used data from the UK Biobank, a massive long-term health study involving more than half a million participants, to assess this connection.³

- **Selecting the participants** — After filtering out those with pre-existing psoriasis, unreliable calorie reporting, or incomplete participation, the final analysis focused on 121,019 individuals. They were mostly between the ages of 40 and 69, with an average age of 56, which is right in the window where psoriasis often starts showing up.
- **Conducting the study** — The researchers provided the participants with detailed online questionnaires that looked into their diets, lifestyles, and health history. The researchers then used this data to categorize how much ultraprocessed food each person consumed, and then tracked who developed psoriasis over time.
- **The researchers sorted participants into four groups (quartiles)** — This was based on how much UPFs they consumed, with the first quartile being the lowest and the fourth the highest. In the second quartile, the risk of psoriasis was higher by 7%, while in the third and fourth quartile, the risk was higher by 19% and 23%, respectively.

To put it simply, the more ultraprocessed foods you consume, the more likely you'll develop this skin condition. News-Medical.net summarizes:

“[T]hese findings indicate a 6% increased risk of psoriasis with each 10% increase in UPF consumption, with this risk reduced by 18% if 20% of UPFs were replaced with category 1 foods.” (Category 1 refers to whole and unprocessed foods.)⁴

Even Small Dietary Swaps Will Dramatically Lower Your Psoriasis Risk

Digging deeper, the study found that the connection between UPFs and psoriasis was tied to two major factors – inflammation and body mass index (BMI).

Inflammation is the body’s response to injury or stress; while it’s useful short-term, chronic low-level inflammation is harmful. UPFs increase this inflammation through additives like seed oils, refined sugars, and artificial flavors.

- **Body mass index (BMI) played a significant role** – According to the study authors, BMI accounts for 27.15% of the connection. This means that the added weight gain brought on by consuming ultraprocessed foods heightens your risk of psoriasis.
- **Your genes also play a role** – The researchers found that people with a high genetic risk who also ate high amounts of UPFs were 2.7 times more likely to develop psoriasis than those with low genetic risk and minimal UPF intake.
- **One of the most powerful takeaways** – The researchers found that replacing just 5% of ultraprocessed foods in your daily diet with minimally processed alternatives dropped psoriasis risk by 14%. When they replaced 10% of UPFs, the risk dropped by 17%.

Replacing 20% made the risk go down by 18%. These numbers reflect real changes you can make with minor shifts, like snacking on whole fruit instead of potato chips, and swapping soda for plain water.

Why Are Ultraprocessed Foods So Damaging to Your Health?

I've written about the **dangers of ultraprocessed foods** numerous times, as I believe that they're one of the primary reasons many are struggling with poor health today. Although affordable and convenient, these foods are a toxic cocktail of emulsifiers, preservatives, flavorings, colorings, industrial fats, and refined carbs. They are engineered to hijack your appetite and trigger cravings, trapping you in an endless cycle of overeating, weight gain, and disease.

- **Psoriasis is just the tip of the iceberg** — A 2024 umbrella review published in the BMJ found that **ultraprocessed foods are strongly linked to 32 adverse health outcomes**. These include respiratory diseases, metabolic problems, digestive issues, and even cancer.⁵
- **Ultraprocessed foods are clogging up your arteries** — Constantly consuming these foods sets you up for a heart attack or stroke. One Canadian study links these foods to nearly 38% of all cardiovascular disease deaths in the country.⁶
- **These foods also raise the risk of depression in the elderly** — A study published in BMC Medicine found that eating **just four servings of ultraprocessed food per day increased depression risk** by 10% among adults over age 70. Their mental health scores also declined; the more UPFs they ate, the greater the effect.⁷
- **Ultraprocessed foods also affect your muscle health** — Consuming higher amounts of **UPFs elevates the risk of developing low muscle mass** by 60% in young and middle-aged adults.⁸

So what triggers these effects? One reason is that ultraprocessed foods are loaded with refined sugar, artificial additives, and oxidized fats, which are known to trigger systemic inflammation.

- **Processed foods also damage your gut microbiome** — Your gut is composed of a complex ecosystem of bacteria that affects everything in your body. When you overload it with additives like emulsifiers and artificial sweeteners, your gut's protective lining is damaged, and changes in microbial diversity also occur.

- **They trigger oxidative stress, too** – This is a state where your body can't neutralize damaging free radicals fast enough. UPFs contribute to this imbalance by introducing harmful compounds and lacking protective nutrients. Over time, oxidative stress speeds up aging, weakens immunity, and makes you more vulnerable to chronic disease and infections.

Linoleic Acid and Other Unhealthy Fats in Processed Foods Also Affect Your Skin Health

One major reason why ultraprocessed foods are so damaging is that they are loaded with **linoleic acid (LA)**. Almost all ultraprocessed foods are typically made with high amounts of seed oils, so it means they contain this polyunsaturated fat (PUF).

- **When you ingest LA, it doesn't stay dormant in your body** – Rather, it goes straight to your mitochondria, which are the powerhouses of your cell. These cellular engines generate adenosine triphosphate (ATP), the fuel that powers everything from brain function to hormone balance.
- **LA in junk food hampers your cellular energy production** – As I mentioned above, psoriasis is an autoimmune disease, and mitochondrial function plays a role in the development and progression of these disorders.

As I detailed in my peer-reviewed paper published in *Nutrients*, LA in small amounts does not cause harm, and is actually considered an essential fatty acid. But the amount of vegetable oils and ultraprocessed foods many consume today is so high that it leads to excessive buildup in your body.⁹

Too much LA causes oxidative and reductive stress, which disrupts your mitochondrial function.¹⁰ To put it simply, it damages your cellular engines, causing them to slow down or malfunction. That energy shortfall means your cells can't repair themselves or respond to stress, leading to fatigue, mood changes, and disease.

- **Linoleic acid also travels to your skin** – When you consume LA in excessive amounts, it accumulates in your skin where it triggers inflammation and DNA damage when exposed to the sun (more on this later.)
- **Rethink your fats and lower your LA intake** – Eliminating ultraprocessed foods and avoiding vegetable (seed) oils like soybean, corn, sunflower, safflower, grapeseed and canola will help reduce your risk of psoriasis. Ideally, keep your total LA consumption below 5 grams per day, or under 2 grams if possible.

Most restaurants use seed oils to fry or sauté their foods, and even the sauces and dressings they use contain these ingredients. If you're serious about cutting this fat from your life, limit restaurant meals or ask exactly what oils are used in the kitchen.

I recommend switching to healthy saturated fats like grass fed butter, ghee, or beef tallow when cooking. Another recent discovery I've made is pentadecanoic acid or C15:0, which selectively displaces the LA in your skin, protecting you from skin damage. I'll discuss this more in the following section.

Vitamin D Deficiency – Another Risk Factor Linked to Psoriasis

In 2023, researchers reported another striking connection between vitamin D and psoriasis, noting that having lower levels of this nutrient increases the severity of this disease. The data was taken from the National Health and Nutrition Examination Survey (NHANES) and involve almost 500 psoriasis cases.¹¹

According to their observations, psoriasis patients with the smallest areas of skin affected by the disease had the highest average levels of vitamin D, while those with the most extensive lesions showed the lowest levels.

- **Vitamin D remained a strong predictor even after adjusting for other factors** – The researchers also adjusted for factors like smoking and BMI; however, vitamin D deficiency remained a significant predictor of psoriasis severity.

- **The effects depend on the activity of vitamin D receptors (VDR) inside immune cells** – Your body's response to vitamin D depends on tiny structures inside cells called vitamin D receptors (VDR). When you have moderate to severe psoriasis, these receptors are more active on certain immune cells, especially CD14+ monocytes, compared to individuals without this condition.
- **VDR activity is more tied to inflammation than lesion severity** – Interestingly, as inflammation improved with treatment, the difference in VDR activity between psoriasis patients and healthy people disappeared, even though the severity of the condition decreased. This suggests that VDR activity is tied more to overall inflammation than directly to how severe your psoriasis is.
- **Ultraprocessed foods, vitamin D deficiency, obesity, and psoriasis are all interconnected** – UPFs trigger obesity, which is both a risk factor for developing psoriasis and a condition worsened by the systemic inflammation psoriasis triggers. Lower vitamin D levels are common in obese individuals, as the vitamin gets trapped in fat tissue and less is available for use in your body.

Optimizing Your Vitamin D Levels Through Safe Sun Exposure

While synthetic vitamin D creams are gaining traction as prescription treatments, optimizing your levels through safe sun exposure is a better strategy for psoriasis management. But, as I've mentioned above, only do so when you've purged linoleic acid from your diet.

- **Sunlight provides benefits beyond vitamin D production** – Ultraviolet (UV) radiation from the sun triggers many biological processes, like immune system modulation, nitric oxide release for improved circulation, mitochondrial support, and managing your internal body clock (circadian rhythm). These effects work synergistically with vitamin D, making direct sun exposure the ideal source of this nutrient.

- **Monitor your skin during sun exposure** – The key is to regularly check for any redness or pinkness – a "sunburn test" tailored to your skin type and the season. If your skin remains unaffected, your exposure is likely within a safe range.
- **Before getting peak sun exposure, you need to eliminate all LA from your diet** – When UV radiation interacts with LA in the skin, it triggers inflammatory responses and DNA damage, increasing the risk of photoaging and skin cancer. It also worsens inflammation and leads to more severe psoriasis flare-ups.
- **Here's a safer approach** – Instead of getting direct sun exposure during peak hours of the day, limit it to early morning or late afternoon until seed oils and other sources of LA have been eliminated from your diet for at least two to six months.
- **Another revolutionary strategy is to get C15:0** – **C15:0** is a dietary fat found in full-fat dairy. But unlike LA, this odd-chain saturated fat protects your skin from oxidative stress.

Most people get only about 10 to 200 milligrams per day. I personally take 2 grams daily. At that level, research suggests your keratinocytes – the skin cells in your outermost layer – may start incorporating C15:0 in place of LA. When you consistently consume this fat, such as from raw, grass-fed milk, LA levels on your skin can trend lower. Some studies report a reduction of 25% to 30% over three to four months, though results can vary.

Typically, it takes two to three years of strict low-LA eating to clear out 80% of the LA stored in your body. In my experience, adding C15:0 to a low-LA approach appears to accelerate that timeline, potentially helping you reach the same outcome in 12 to 18 months. Learn more about it by reading "[The Fast-Track Path to Clearing Vegetable Oils from Your Skin.](#)"

- **More natural approaches to sun protection** – If you plan to spend time in the sun before your body has fully cleared seed oils, there are protective measures to help shield your skin, such as taking astaxanthin, using niacinamide (vitamin B3 cream),

or taking a baby aspirin. Molecular hydrogen also offers protection against sun exposure. Read more in this article [“The Link Between Vitamin D and Psoriasis.”](#) If there are hindrances to getting enough sun exposure, such as if you live in an area where there’s limited sunlight, taking a vitamin D3 supplement will help maintain healthy levels. Ideally, you should aim for levels between 60 and 80 ng/mL (or 150 to 200 nmol/L, if you’re in Europe) to help prevent or manage diseases like psoriasis.

To ensure you’re getting the right amount, I recommend testing your levels twice a year so you can adjust supplementation and/or sun exposure accordingly. Once you’ve achieved the optimal levels, retest after three to four months to verify your progress.

Tips to Manage Psoriasis Naturally

Unfortunately, psoriasis has no known cure; if you’re dealing with it or trying to stop it before it starts, the most powerful move is to fix what’s actually causing the problem. The first step is to remove the inflammatory triggers that are causing your immune system to go haywire, particularly ultraprocessed foods.

Next, you need to optimize your vitamin D levels, because if they are low, you’re even more vulnerable to the effects of this disease. In addition, here are remedies to help manage psoriasis flare-ups and ease your discomfort:¹²

- **Aloe vera** – The bioactive compounds (aloe-emodin and acemannan) in this plant’s gel help ease redness and scaling. Aloe gel also promotes wound healing and hydration. This plant also has salicylic acid, which helps eliminate psoriatic plaques due to its keratolytic activity.
- **Turmeric** – Its bioactive compound, curcumin, has antioxidant, antitumor, and anti-inflammatory properties that help manage psoriasis. It inhibits proinflammatory compounds and targets signaling pathways related to inflammation.

- **Coffee** – Caffeine inhibits Th1/Th2 cell proliferation while simultaneously promoting the release of anti-inflammatory biomarkers such as adiponectin. It also inhibits cyclin Adenosine Monophosphate (cAMP), an immunomodulator. Just make sure to buy organic coffee beans to protect your health. Drink it with a splash of raw, grass fed milk and raw honey for a truly healthy drink.
- **Garlic** – It has bioactive compounds and sulfuric substances that help manage psoriasis.

It's also important to increase your intake of healthy saturated fats like C15:0. Omega-3 is also important for healthy skin, but consume it in moderation, as it's still a type of PUF. When consumed in excessive quantities, it will cause metabolic damage similar to that of LA.

Frequently Asked Questions (FAQS) About Ultraprocessed Foods and Psoriasis

Q: How do ultraprocessed foods increase the risk of psoriasis?

A: Ultraprocessed foods (UPFs) are filled with harmful ingredients like seed oils, emulsifiers, refined sugars, and additives that trigger chronic inflammation and disrupt immune function. These inflammatory reactions increase your risk of autoimmune conditions like psoriasis, especially if you have a genetic predisposition.

Q: Can small changes in my diet really reduce my psoriasis risk?

A: Yes. Research shows that replacing just 5% of ultraprocessed foods with unprocessed, whole foods drops your risk by 14%. Even simple swaps like eating fruit instead of packaged snacks or using grass fed butter instead of vegetable oil will make a measurable difference.

Q: What's the connection between body weight and psoriasis?

A: Excess body fat acts like an inflammatory organ, releasing chemicals that aggravate your immune system. The study found that 27% to 30% of the psoriasis risk from UPF consumption is tied to the weight gain these foods cause. Lowering UPF intake helps manage both your weight and inflammation levels.

Q: Why is vitamin D important for managing psoriasis?

A: Low vitamin D levels are strongly linked to more severe psoriasis. This nutrient supports immune balance and reduces inflammation. Optimizing your vitamin D through safe sun exposure or supplements helps reduce psoriasis flare-ups and supports healthier skin.

Q: Which foods should I avoid and which ones are best to eat instead?

A: Avoid ultraprocessed foods made with seed oils, artificial additives, and refined carbs – these include packaged snacks, fast food, and sweetened drinks. Replace them with saturated fats like tallow and butter, fresh fruits with pulp, root vegetables, and whole dairy products rich in C15:0 for better skin health.

Sources and References

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