

# Low Progesterone and DHEA Drive Psoriasis

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## STORY AT-A-GLANCE

- › Women with psoriasis consistently show lower progesterone and DHEA, two hormones that normally quiet inflammation, making flare-ups stronger and more frequent
- › Estrogen dominance – where estrogen feels too strong relative to progesterone – heightens immune reactivity and explains why symptoms worsen before your period, after childbirth and during menopause
- › Intracellular estrogen, not blood estrogen, drives inflammation in psoriatic skin, which is why your labs can look “normal” even when your symptoms intensify
- › Long-term hormone replacement therapy increases psoriasis risk by overstimulating inflammatory pathways, especially in post-menopausal women whose hormones are already shifting
- › You can ease flare patterns by supporting progesterone and DHEA, eliminating estrogen-mimicking triggers, avoiding seed oils, optimizing vitamin D and reducing stress-related hormonal strain

Psoriasis shows up on your skin, but the real disruption happens underneath it. The redness, itching, cracking and burning are only the surface-level signals of an immune system that's stuck in overdrive. When this keeps going, it doesn't just stay on your elbows or scalp – it affects your joints, your energy, your sleep, your mood and the way you move through each day. That's why so many people feel confused and defeated by flare-ups that seem to come out of nowhere.

What caught my attention in the latest research is how consistently hormones shape this internal storm. Women with psoriasis carry a very different hormonal signature than women without it. The differences look small on paper, but they represent a meaningful shift in how your immune system behaves.

When certain hormones fall out of balance, your body interprets everyday stressors as threats, and your skin becomes the place where that stress erupts. What deepens the picture even further is that standard estrogen numbers don't tell the full story. Even when your estradiol looks "normal," your tissues could be experiencing something very different.

If your skin worsens before your period, after giving birth or as you move through menopause, you're already feeling the effects of this internal imbalance — even if your lab work doesn't reflect it. All of this points to a simple but important truth: psoriasis is influenced by the same hormonal rhythms that shape your energy, mood and resilience.

## **Low Progesterone and DHEA Reveal a Psoriasis Pattern**

In a study published in the Journal of the American Academy of Dermatology, researchers investigated whether specific hormone levels play a role in [psoriasis](#) by analyzing a dataset of 21,008 women.<sup>1</sup> This was a large real-world comparison looking at whether hormonal differences track with psoriasis risk. The goal was to determine which hormones shift in women with psoriasis and whether those shifts point to a pattern that helps you understand your own symptoms more clearly.

- **The study revealed a consistent hormonal imbalance** — The population included women with psoriasis matched to women without psoriasis, all averaging about 46 years old. The standout finding was that women with psoriasis had lower progesterone and lower DHEA, while estradiol and testosterone were nearly identical between groups.

- **Those with psoriasis had significantly lower progesterone** – Progesterone averaged 7.59 ng/mL in the psoriasis group compared with 9.4 ng/mL in controls.<sup>2</sup> Progesterone helps calm your immune system, so when it drops, your inflammatory pathways fire harder and more often.
- **DHEA levels also dipped** – DHEA – a hormone that supports metabolic flexibility, resilience, and immune balance – measured at 144.9 ug/dL in women with psoriasis, whereas controls averaged 150.7 ug/dL. Even small declines matter because DHEA influences how your body handles stress and inflammation.
- **How progesterone and DHEA influence immunity** – Progesterone tempers inflammatory immune cells and slows down the overactive pathways that drive plaques. When levels fall, your immune system becomes more reactive, and your skin responds with redness, itching, and rapid cell turnover. DHEA supports stress adaptation, so lower levels leave you more vulnerable to inflammation triggered by stress, lack of sleep, or hormonal shifts.
- **The hormonal shifts suggest a predictable biological chain reaction.** When progesterone drops relative to estrogen, your ratio changes – meaning your body feels the effects of estrogen more strongly, even if your estrogen level is normal. This shift heightens immune sensitivity, fuels inflammation, and makes psoriasis symptoms break through more easily. Lower DHEA amplifies the effect by weakening your metabolic resilience under stress.

## **Estrogen Dominance Creates a Hidden Internal Storm**

In a commentary, bioenergetic researcher Georgi Dinkov expanded on the hormonal patterns identified in the Journal of the American Academy of Dermatology study and explained why those shifts trigger powerful immune reactions.<sup>3</sup> He broke down how hidden **hormonal imbalances** fuel inflammation inside cells, offering a clearer reason psoriasis often follows female hormonal changes.

- **Symptoms that don't match your hormone labs finally make sense** – Many women with autoimmune symptoms show "normal" estrogen in bloodwork even though their bodies behave as if estrogen is overpowering. This mismatch happens because intracellular estrogen – the estrogen stored inside tissues – isn't reflected in standard labs. This explains why your symptoms feel out of sync with what your test results show.
- **Your progesterone-to-estrogen ratio tells the real story** – According to Dinkov, **estrogen dominance** isn't about high estrogen. It's about estrogen being strong relative to progesterone. When progesterone drops, estrogen's signal intensifies inside your tissues even if blood levels look normal. As he noted, "blood tests for estrogen are notoriously unreliable," because they fail to measure the estrogen that drives inflammation inside your cells.

Estrogen inside the cell acts as a pro-inflammatory signal, and without enough progesterone to balance it, immune cells react more aggressively. The predictable outcome is stronger immune activation and more intense skin symptoms when progesterone and DHEA both fall.

- **Stress, low thyroid function and poor metabolism push your body toward more inflammation** – Dinkov outlined how chronic stress, low thyroid output and slowed metabolism lower both progesterone and DHEA, removing the two strongest hormonal brakes on immune overactivation. When these internal buffers fall, flare-ups intensify.
- **Low DHEA links psoriasis to a broader autoimmune landscape** – Low DHEA is common in autoimmune disorders and DHEA supplementation improves symptoms in people with the chronic **autoimmune disease lupus**. This shows that hormonal imbalance isn't a minor background issue – it actively shapes how your immune system behaves and how intensely your symptoms show up.

## **Life Stages Shape Psoriasis in Overlooked Ways**

Research published in the Journal of Clinical Medicine investigated how changes in hormones across major female life stages affect the course of psoriasis.<sup>4</sup> This was a comprehensive evaluation of evidence showing that psoriasis symptoms rise and fall in predictable patterns tied to menstruation, pregnancy, postpartum changes, and menopause. The purpose was to clarify how these life-stage transitions reshape inflammation, skin behavior, and overall symptom intensity.

- **Women's symptom patterns reveal a clear hormonal fingerprint** — The population discussed included women living with chronic psoriasis who experience fluctuating symptoms depending on their hormonal status. Estrogen and progesterone shifts influence not only the inflammation in the skin but also the emotional and social challenges these women face.
- **Pregnancy often becomes a natural period of remission** — During pregnancy, estrogen climbs much higher, and these elevated levels often lead to symptom relief. Some women experience full remission in the second or third trimester. Pregnancy shifts the immune system toward a calmer, less inflammatory pattern, which explains why your skin quiets down.
- **The postpartum crash sets the stage for intense flare-ups** — After childbirth, estrogen drops rapidly, and this sudden decline is a major trigger for severe postpartum flare-ups. This period also includes sleep disruption, emotional stress, and physical recovery, which amplify inflammation. Postpartum hormone shifts often trigger severe flare-ups, validating why this phase feels overwhelming and difficult to manage for many mothers.
- **Hormonal shifts ripple into emotional and social well-being** — Beyond the physical symptoms, hormonal fluctuations influence mood, stress tolerance and body image. These emotional shifts interact with skin symptoms to create a cycle where flare-ups increase stress and stress reinforces inflammation.

## **Long-Term HRT Exposure Raises Psoriasis Risk**

A large population-based analysis published in the Journal of Korean Medical Science examined whether hormone replacement therapy (HRT) increases the likelihood of developing psoriasis.<sup>5</sup> This was not a small sample. The researchers evaluated 1,130,741 post-menopausal women using Korea's National Health Insurance Service database, following them from 2010 to 2018 to identify new psoriasis cases. The study's purpose was to determine whether HRT duration changes a woman's psoriasis risk.

The researchers divided women into four groups: no HRT, less than two years of HRT, two to five years of HRT, and five or more years of HRT. All participants were at least 40 years old, had completed menopause, and had no previous psoriasis diagnosis. After following this massive population, the authors found a consistent pattern: the more years a woman used HRT, the higher her psoriasis risk became.

- **The incidence of psoriasis increased steadily as HRT duration increased** – The baseline group with no HRT had an incidence rate of 3.36 cases per 1,000 person-years. Women using HRT for under two years reached 3.75 cases per 1,000 person-years, those using HRT for two to five years reached 4.00 cases, and women using HRT for five or more years reached 4.09.

This progressive rise showed a clear dose–response pattern, meaning longer HRT use consistently tracked with higher psoriasis development.

- **HRT use – especially long-term use – elevated psoriasis risk** – After controlling for age, smoking, alcohol intake, exercise, body mass index, diabetes, high blood pressure, and dyslipidemia, the relationship held firm. Long-term HRT made psoriasis development 22% more likely compared to women who never used it.
- **Hormone therapy revs up your immune system in a way that increases inflammation** – The study showed that HRT makes certain immune cells – called T-cells – multiply faster, which turns up your body's inflammatory response.

It also raises markers like C-reactive protein and boosts one of the main inflammatory chemicals involved in psoriasis. When all of these signals increase at the same time, your immune system becomes more "on edge," making psoriasis

more likely to flare in women whose hormones are already shifting with age.

- **Timing and age affect estrogen's impact on inflammatory diseases** – Estrogen has both anti-inflammatory and pro-inflammatory effects depending on the stage of life. In younger women, estrogen typically suppresses inflammation. But in post-menopausal women – especially those older than 58 in this study – estrogen given through HRT interacts with a pre-existing inflammatory environment.

This timing effect mirrors what happens in other diseases such as lupus and atherosclerosis, where estrogen exposure in later life raises inflammation rather than quieting it. The study highlighted previous research connecting HRT to elevated risks of lupus, cardiovascular disease, and vessel-wall inflammation.

These conditions share immune pathways with psoriasis, which helps explain why extended HRT use aligns with higher psoriasis incidence.

## **Restoring Hormonal Balance to Ease Psoriasis from the Inside Out**

The solution is to focus on the root problem described throughout the research: your immune system is reacting strongly because your progesterone and DHEA are too low relative to estrogen. When these two hormones drop, inflammation rises, your skin becomes more reactive, and everyday stress hits you harder. There are clear, practical ways to support your body so these hormonal imbalances stop running the show. Here are five steps to help you move in the right direction:

- 1. Optimize your progesterone-to-estrogen ratio through targeted lifestyle changes** – In the case of female hormones, the progesterone-to-estrogen ratio is a key indicator of endocrine health. For optimal health, this ratio should ideally be quite high, in the range of 200 to 500. A ratio below 100 is typically considered indicative of estrogen dominance, a state associated with various health problems, including increased risk of hormone-sensitive cancers.<sup>6</sup>

Many people believe they're low in estrogen due to bloodwork, when they actually have high levels in their organs. This is because serum estrogen levels are not representative of estrogen that's stored in tissues. Estrogen is often low in plasma but high in tissues. Prolactin levels serve as a reliable indicator of estrogen activity, as estrogen directly stimulates your pituitary gland to produce prolactin.

When prolactin levels are elevated, it signals increased estrogen receptor activation, whether from your body's own estrogen production or environmental exposures to endocrine-disrupting chemicals (EDCs) in microplastics and other pollutants. This relationship is particularly significant when combined with low thyroid function, making prolactin an important marker for identifying hormonal imbalance.

- 2. Reduce your estrogen load by removing hidden estrogen-mimicking triggers from your daily life** – Lowering your overall estrogen burden starts with clearing out the biggest sources that push you toward estrogen dominance – a pattern deeply tied to psoriasis flare intensity. Begin by eliminating seed oils from your diet, since they're high in **linoleic acid** (LA) that acts like estrogen inside your body and disrupt hormonal balance.

This step also naturally steers you away from **ultraprocessed foods** – a major dietary trigger linked to psoriasis. Aim to keep your LA intake under 5 grams per day, ideally under 2 grams. When my **Mercola Health Coach app** launches, the Seed Oil Sleuth feature will help you track this down to the tenth of a gram.

At the same time, clean up your environment. **Xenoestrogens** – chemicals that mimic estrogen – hide in personal care products, household cleaners, **microplastics** and fragrances. Choose natural products, avoid parabens and phthalates, switch to glass or stainless steel, and avoid heating food in plastic. Filter your tap water to reduce microplastic exposure, and choose glass if you buy bottled water.

Finally, take a thoughtful look at estrogen-based therapies or **contraceptives** you're using, because external estrogen – even bioidentical forms – adds to your total estrogen load. By removing dietary, environmental and pharmaceutical sources of estrogen pressure, you create a hormonal environment that supports calmer immune activity and more predictable psoriasis patterns.

- 3. Support your DHEA levels by strengthening your stress resilience** – If you live with high stress, your DHEA drops sharply, and your immune system becomes louder. Build simple daily rituals that calm your stress load: slow breathing for two minutes several times a day, regular outdoor walks, and a consistent bedtime routine. These strengthen the metabolic pathways tied to DHEA production, which leads to calmer skin and fewer flare triggers.
- 4. Optimize your vitamin D levels** – People with psoriasis consistently have lower **vitamin D levels** – averaging 6.26 ng/mL less than healthy individuals – and more severe plaques.<sup>7</sup> Safe sun exposure helps restore levels, but if you still eat seed oils, be aware that LA oxidizes easily, builds up in your skin and increases your risk of skin damage if you get sun exposure during peak hours (10 a.m. to 4 p.m.).

Cut these oils from your diet for at least six months before getting peak sun exposure. Get your vitamin D levels tested at least twice a year and aim for a level between 60 and 80 ng/mL (150 to 200 nmol/L).

- 5. Consider natural progesterone** – Natural progesterone is one of the most effective ways to increase levels and steady estrogen's effects, especially when estrogen feels too strong compared to the rest of your hormones – a pattern strongly linked to psoriasis flare-ups.

When progesterone is low, your tissues feel estrogen more intensely, which ramps up inflammation in your skin and makes plaques itchier, redder and harder to control. By restoring progesterone, you balance this internal "see-saw," reducing the hormonal pressure that keeps your immune system on high alert.

## **How to Use Progesterone**

Before you consider using progesterone, it is important to understand that it is not a magic bullet, and that you get the most benefit by implementing a Bioenergetic diet approach that allows you to effectively burn glucose as your primary fuel without backing up electrons in your mitochondria that reduces your energy production. My new book, "Your Guide to Cellular Health: Unlocking the Science of Longevity and Joy," covers this process in great detail.

Once you have dialed in your diet, an effective strategy that can help counteract estrogen excess is to take transmucosal progesterone (i.e., applied to your gums, not oral or transdermal), which is a natural estrogen antagonist. Progesterone is one of only three hormones I believe many adults can benefit from. (The other two are DHEA and pregnenolone.)

I do not recommend transdermal progesterone, as your skin expresses high levels of 5-alpha reductase enzyme, which causes a significant portion of the progesterone you're taking to be irreversibly converted primarily into allopregnanolone and cannot be converted back into progesterone.

## **Ideal Way to Administer Progesterone**

Please note that when progesterone is used transmucosally on your gums as I advise, the FDA believes that somehow converts it into a drug and prohibits any company from advising that on its label. This is why companies promote their progesterone products as "topical."

However, please understand that it is perfectly legal for any physician to recommend an off-label indication for a drug to their patient. In this case, progesterone is a natural hormone and not a drug and is very safe even in high doses. This is unlike synthetic progesterone called progestins that are used by drug companies, but frequently, and incorrectly, referred.

Dr. Ray Peat has done the seminal work in progesterone and probably was the world's greatest expert on progesterone. He wrote his Ph.D. on estrogen in 1982 and spent most of his professional career documenting the need to counteract the dangers of excess estrogen with low-LA diets and transmucosal progesterone supplementation.

He determined that most solvents do not dissolve progesterone well and discovered that vitamin E is the best solvent to optimally provide progesterone in your tissue. Vitamin E also protects you against damage from LA. You just need to be very careful about which vitamin E you use as most supplemental vitamin E on the market is worse than worthless and will cause you harm not benefit.

It is imperative to avoid using any synthetic vitamin E (alpha tocopherol acetate – the acetate indicates that it's synthetic). Natural vitamin E will be labeled "d alpha tocopherol." This is the pure D isomer, which is what your body can use.

There are also other vitamin E isomers, and you want the complete spectrum of tocopherols and tocotrienols, specifically the beta, gamma, and delta types, in the effective D isomer. As an example of an ideal vitamin E, you can look at the label on our vitamin E in our store. You can use any brand that has a similar label.

You can purchase pharmaceutical grade bioidentical progesterone as Progesterone Powder, Bioidentical Micronized Powder, 10 grams for about \$40 on many online stores like Amazon. That is nearly a year's supply, depending on the dose you choose.

However, you will need to purchase some small stainless steel measuring spoons as you will need a 1/64 tsp, which is 25 mg and a 1/32 tsp, which is 50 mg. A normal dose is typically 25 to 50 mg and is taken 30 to 60 minutes before bed, as it has an anti-cortisol function and will increase GABA levels for a good night's sleep.

If you are a menstruating woman, you should take the progesterone during the luteal phase or the last half of your cycle, which can be determined by starting 10 days after the first day of your period and stopping the progesterone when your period starts.

If you are a male or non-menstruating woman, you can take the progesterone every day for four to six months and then cycle off for one week. The best time of day to take progesterone is 30 to 60 minutes before bed as it has an anti-cortisol function and will increase GABA levels for a good night's sleep.

This is what I have been personally doing for over a year with very good results. I am a physician so do not have any problems doing this. If you aren't a physician, you should consult one before using this therapy, as transmucosal progesterone therapy requires a doctor's prescription.

## **FAQs About Progesterone, DHEA and Psoriasis**

**Q: Why are progesterone and DHEA so important for psoriasis?**

**A:** Both hormones act as natural "brakes" on inflammation. When progesterone and DHEA drop, estrogen's effects feel stronger, your immune system becomes more reactive, and your skin responds with redness, itching, and rapid cell turnover. Research shows women with psoriasis consistently have lower levels of both hormones, which explains why flare-ups worsen during PMS, postpartum changes, and menopause.

**Q: Why do my symptoms flare even when my estrogen levels look normal on lab tests?**

**A:** Standard bloodwork doesn't measure intracellular estrogen – the estrogen stored inside your tissues – which is what drives inflammation. This is why your labs may look normal while your symptoms tell a different story. When progesterone is low, your tissues feel estrogen more intensely, creating a state of estrogen dominance that fuels flare-ups even without high blood estrogen.

**Q: How do seed oils and environmental chemicals make psoriasis worse?**

**A:** LA-rich seed oils and everyday chemicals like parabens, phthalates and microplastics act as estrogen mimics inside your body, pushing you toward estrogen dominance. This increases inflammatory signaling in the skin and raises the likelihood of flare-ups. Removing seed oils, reducing plastics and switching to natural personal-care and cleaning products lowers this estrogen load and helps calm your skin from the inside out.

**Q: Does hormone replacement therapy increase psoriasis risk?**

**A:** Yes — large-scale research of more than 1.13 million post-menopausal women shows psoriasis risk rises the longer a woman uses HRT. Long-term use made psoriasis 22% more likely, even after adjusting for age, lifestyle, and health factors. HRT activates immune pathways that heighten inflammation, which is why extended exposure raises flare risk.

**Q: What practical steps help rebalance hormones and reduce flare intensity?**

**A:** Supporting progesterone and DHEA, eliminating estrogen-mimicking triggers, reducing seed oils, optimizing vitamin D, and strengthening stress resilience all help restore hormonal balance. These steps lower inflammatory signaling, calm immune overactivation, and make psoriasis flare cycles easier to control and predict.

## Sources and References

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- <sup>1</sup> [Journal of the American Academy of Dermatology October 17, 2025](#)
- <sup>2</sup> [Helio October 24, 2025](#)
- <sup>3</sup> [To Extract Knowledge from Matter October 28, 2025](#)
- <sup>4</sup> [Journal of Clinical Medicine January 17, 2025, 14\(2\), 582](#)
- <sup>5</sup> [Journal of Korean Medical Science 2023 Nov 14;38\(49\):e377](#)

- <sup>6</sup> To Extract Knowledge from Matter February 9, 2025
- <sup>7</sup> Nutrients. 2023 Jul 30;15(15):3387