Women's Health

How to Treat Dry Scalp in Winter, According To Dermatologists

Keep your hair flake-free this season.

By Brigitt Earley | November 22, 2025

Winter is coming, and with it…the flakes. Not the cute kind that land on your lashes, but the big, white ones that cling to hair, instantly killing your vibe. Unfortunately, dry scalp is a problem that's plagued as the temperatures drop for as long as I can remember. So, I decided it's time to find out what gives.

My first step was to get some answers on how and why it happens in the first place. "Dry scalp happens when the skin on the scalp loses moisture and becomes irritated, leading to tightness, flaking, and itchiness," explains Navin Arora, DO, a board-certified dermatologist in Garden City, New York. It can happen any time of the year, but cold temperatures and dry indoor air only speed up the moisture loss, making winter peak season for irritated scalps.

Some people are naturally more prone to dehydration (thanks, genetics), while others unknowingly sabotage their scalp with harsh shampoos, over-washing, or ignoring the skin under their hair altogether. The silver lining? With a few tweaks—gentle products, consistent TLC, and some expert tricks—you can ease the itch and banish the flakes.

Let's get started.

The science behind a dry scalp

On a microscopic level, your scalp isn't just skin with hair on top—it's an active environment with hair follicles, oils (officially called sebum), microbes, and immune cells all interacting. When this balance is disrupted, studies show the scalp can lose those protective oils and hydration, leading to tightness, irritation, and even flaking. Winter often makes this worse: Research has found cold outdoor air, low indoor humidity, and central heating all strip moisture from the scalp faster than it can replenish itself.

And just like a January snow squall, it's the perfect storm of conditions for irritation. "A dry scalp occurs when the skin barrier can't retain enough moisture or natural oils," says Aga Tompkins, a board-certified trichologist in Chicago. Those tiny white flakes that end up in your hair? That's your scalp shedding because it's dehydrated. You might also notice your hair itself feels brittle, less shiny, or even a little rough near the roots.

Meet the experts:
Navin Arora, MD, is a board-certified dermatologist in Garden City, New York.

Aga Tompkins is a board-certified trichologist in Chicago.

Arjun Dupati, MD, is a board-certified dermatologist in Michigan.

The tell-tale symptoms of a dry scalp

There are a few signs to look out for—and most people notice some combination of the following:

• Itching or irritation: A constant urge to scratch is often the first sign, says Arjun Dupati, MD, a board-certified dermatologist in Michigan.

• Tightness or discomfort: Your scalp may feel "pulled" or sensitive, says Dr. Arora, especially after washing or being in cold, dry air.

• Small, white flakes: Unlike larger, oilier dandruff flakes, dry scalp flakes are usually tiny, dry, and white, says Dr. Arora.

• Brittle or dull hair: Because the scalp isn't producing enough natural oils, your strands may feel rough, dry, or break more easily near the roots, says Tompkins.

• Sensitivity to products: Harsh shampoos, alcohol-heavy styling products, or over-washing can sting or worsen dryness, says Tompkins.

If you notice several of these regularly, it's a good sign your scalp is dehydrated and could benefit from targeted care.

Dry scalp vs. dandruff: What's the difference?

Dry scalp and dandruff are often used interchangeably, but they aren't the same—and understanding the difference can help you treat both conditions properly.

• Dry scalp is primarily a moisture issue. "A dry scalp occurs when the skin barrier can't retain enough moisture or natural oils," says Tompkins. The scalp isn't producing enough oils or losing hydration too quickly, which leads to symptoms like small, white, powdery flakes, tightness, and itchiness.

• Dandruff is usually caused by an oil and yeast imbalance. Dandruff flakes are often larger, can look yellowish or oily, and may be accompanied by more pronounced itching, says Tompkins.

"You can absolutely have both at the same time, especially if your roots are oily but the skin underneath is dehydrated," says Tompkins. In these cases, a dual-approach—hydrating the scalp while managing oil and yeast—can be the most effective.

How to rescue your scalp

There's good news: Dry scalp is usually very treatable with the right combination of hydration, gentle care, and targeted products. Experts recommend a mix of at-home habits, over-the-counter solutions, and professional treatments depending on severity.

At-home, over-the-counter options

If your symptoms are mild to moderate, you can often see improvement with consistent at-home care—but you do need to be mindful of habits that can make dryness worse. To curb the irritation and itch, reach for these:

• Gentle hydrating shampoos: Look for sulfate-free, fragrance-light formulas that restore moisture. Ingredients like glycerin, hyaluronic acid, aloe vera, or colloidal oatmeal are especially helpful, says Dr. Arora.

• Barrier-supporting oils and serums: "Sunflower seed oil strengthens the scalp barrier, and jojoba oil mimics natural sebum," says Tompkins. These can help lock in hydration, especially on dry winter days.

• Targeted exfoliation: Products with mild acids like lactic acid can remove dead skin without irritating the scalp, says Tompkins.

• OTC dandruff shampoos: Alternating with shampoos containing ketoconazole, zinc pyrithione, or selenium sulfide can help manage yeast-related flaking while supporting hydration, says Dr. Arora.

Professional treatments

If your dry scalp is severe, persistent, or accompanied by pain, redness, or cracking, it's time to consider professional care, says Dr. Dupati. A dermatologist or trichologist can assess whether an underlying condition is contributing and recommend targeted treatments, such as:

• In-office scalp therapies: Pros can offer treatments using steam, red light, and targeted serums to rebalance hydration and restore the scalp barrier, says Tompkins.

• Prescriptions: For stubborn cases, dermatologists may prescribe medicated shampoos, topical steroids, or anti-inflammatory treatments to calm irritation and correct underlying imbalances, says Dr. Dupati.

Most people notice relief within 1–2 weeks of consistent care, while visible improvement can take a few weeks for more chronic or genetically dry scalps, says Dr. Arora.

Now, snowflakes will be the only ones you see this winter.

At the end of the day, a dry scalp doesn't have to mean a winter of flakes, itchiness, and brittle roots. With a few simple swaps—hydrating shampoos, gentle serums, and mindful habits—you can keep your scalp happy even when the air is dry and the heater is blasting.

And if your scalp decides to stage a rebellion anyway, remember that professional help is just a call away.

Three Solid Dry Scalp Solutions

Best Dandruff Shampoo

Head & Shoulders Clinical Strength Dandruff Defense Intensive Itch Relief Shampoo, 13.5 Fl Oz, 5.349 Fl Oz

SHOP AT AMAZON

$12 AT WALMART

$12 AT TARGET

This dandruff fighting wash contains the maximum amount of selenium sulfide to kick flakes to the curb plus cooling menthol to soothe away itchiness. It's also safe for color-treated hair and comes in a generous 13.5-ounce bottle that will last and last.

Best Gentle Shampoo

Shu Uemura Moisture Balancing Cleansing Oil Shampoo

$62 AT SEPHORA

Credit: Sephora

This unique formula is gentle and hydrating, restoring the scalp's moisture balance, but also deep-cleaning to banish flakes and buildup. Infused with Japanese botanicals that are rich in healing minerals and antioxidants, it doubles as a treatment for stressed strands.

Best Scalp Serum

Nutrire T.2 Night Restoring Scalp Serum

$68 AT NUTRIRE

Credit: Nutrire

This overnight treatment contains two ingredients our experts recommend—lactic acid and sunflower seed oil—to both lightly exfoliate (removing pesky white flakes) and deeply hydrate to support your scalp's protective skin barrier. It's a two-for-one punch that will knock out even the driest of scalps.