CONDITION

Dandruff

Dandruff is a common scalp condition that causes loose skin flakes and itching.

WHAT IT IS
Common flaky, itchy scalp condition

BODY SYSTEM
Skin and hair

MAIN SYMPTOMS
White or yellow flakes, itching, redness, scalp irritation

WHAT CAUSES IT
Skin yeast, scalp oils, and inflammation

HOW IT IS DIAGNOSED
Scalp and skin examination

MAIN TREATMENT
Anti-dandruff shampoos and topical anti-inflammatory treatments

CAN IT BE CURED?
No - often returns when treatment stops

IS IT AN EMERGENCY?
No - dandruff alone is not an emergency

LONG-TERM OUTLOOK
Usually controllable, with occasional flare-ups

Overview

Dandruff is a common condition that causes dead skin cells to shed from the scalp as visible flakes. Your scalp may also feel itchy, irritated, dry, or oily.

The condition is related to seborrheic dermatitis, which causes flaky, inflamed skin in areas with many oil-producing glands. Dandruff is usually limited to the scalp and tends to cause little or no visible inflammation. If redness and scaling also affect your eyebrows, ears, face, or chest, seborrheic dermatitis may be a more accurate description.

Dandruff is not caused by poor cleanliness, although flakes may be more noticeable when hair is washed less often. It is not contagious and cannot spread from one person to another.

It does not usually harm your physical health. However, itching can be uncomfortable, and visible flakes may affect confidence or make you avoid certain clothing or hairstyles.

Treatment can usually control it, but symptoms may return when treatment is stopped.

Symptoms

Dandruff can range from occasional fine flakes to thicker, more noticeable scaling. Common symptoms include:

Symptoms may come and go. Some people notice more dandruff during cold or dry weather, during stressful periods, or when they do not wash their scalp as often as usual.

Scratching may leave small scabs or sore areas. Heavy scratching can also break the skin, but bleeding, pus, marked swelling, or severe pain are not typical of uncomplicated dandruff.

Thick, sharply outlined scales, patchy hair loss, broken hairs, or a rash extending beyond the scalp may point to another condition. These features are worth having assessed rather than assuming they are dandruff.

- White, grey, or yellowish flakes in the hair or on clothing
- An itchy, tight, or irritated scalp
- Mild redness beneath the flakes
- Areas that feel either dry or greasy

Causes and risk factors

Your skin constantly produces new cells and sheds old ones. With dandruff, scalp cells shed more quickly and collect into visible flakes.

A yeast called Malassezia is thought to play an important role. This yeast normally lives on human skin and uses oils from the scalp. In some people, the skin reacts to the yeast and the substances it produces, leading to faster skin turnover, scaling, and irritation. Having Malassezia on your skin does not mean you have an infection caught from someone else.

Scalp oil, individual skin sensitivity, and inflammation also contribute. Dandruff is therefore not simply a "dry scalp." Some people with dandruff have an oily scalp beneath the flakes.

Factors associated with dandruff or more frequent flare-ups include:

Hair products do not usually cause true dandruff, but they can irritate the scalp or trigger allergic contact dermatitis. This may look similar, especially if symptoms began after using a new dye, fragrance, oil, gel, or shampoo.

- Adolescence and adulthood, when scalp oil production is higher
- Naturally oily skin or hair
- A personal tendency toward seborrheic dermatitis
- Stress, tiredness, or seasonal weather changes
- Some neurological conditions, including Parkinson's disease
- A weakened immune system, which may make seborrheic dermatitis more severe

Diagnosis

Dandruff is usually diagnosed by looking at the scalp and discussing your symptoms. There is no blood test or scan that confirms it.

A healthcare professional may examine the size and location of the flakes, the amount of redness, and whether there is hair loss or broken hair. They may also check your face, ears, neck, nails, or other areas of skin.

Several conditions can resemble dandruff. These include scalp psoriasis, eczema, irritation from hair products, head lice, and tinea capitis, a fungal infection of the scalp. Tinea capitis is more common in children and may cause patchy hair loss, broken hairs, tenderness, or swollen glands.

Tests are not normally needed. If the appearance is unusual or treatment has not helped, a clinician may take a skin or hair scraping to look for fungus. Allergy patch testing may be used when a hair product reaction is suspected. A small skin sample, called a biopsy, is only rarely necessary.

Treatment and management

Treatment aims to reduce flakes, itching, yeast growth, and inflammation. No single product works best for everyone, and dandruff often needs ongoing control.

Regular shampooing helps remove flakes and scalp oil. An anti-dandruff shampoo contains an active ingredient designed to treat scaling rather than only clean the hair. Depending on the product and where you live, ingredients may include ketoconazole, selenium sulfide, zinc pyrithione, coal tar, salicylic acid, or sulfur.

These ingredients work in different ways. Antifungal like fluconazole or terbinafine ingredients reduce Malassezia . Salicylic acid loosens scale. Coal tar slows the production and shedding of

skin cells. Product availability and approved uses differ between countries.

Follow the label, including instructions about how long to leave the shampoo on your scalp. Apply it to the scalp rather than only to the hair. Rinse carefully, and stop using it if it causes marked burning, swelling, or a worsening rash.

If one type does not help, a different active ingredient may work better. Some people alternate products, but using several treatments at once can make it difficult to identify what is helping or causing irritation.

Coal tar may affect the colour of light or dyed hair and can make skin more sensitive to sunlight. Some medicated shampoos can also dry the hair. A regular conditioner may help the hair lengths, but heavy oils applied directly to the scalp can sometimes worsen greasy scale.

If over-the-counter shampoos are not enough, a clinician may recommend a stronger antifungal treatment. A topical corticosteroid, which reduces skin inflammation, may be used for a limited period when itching and redness are more pronounced. These medicines come in scalp-friendly forms such as solutions, foams, or lotions. They are not generally intended for unrestricted long-term use without medical guidance.

Avoid forcefully scraping or picking off scale. Gentle brushing before washing may loosen flakes, but vigorous scratching can damage the skin.

Complications

Dandruff itself does not usually cause serious complications or permanent hair loss.

Repeated scratching can break the skin. This may cause soreness, bleeding, or, less commonly, a bacterial skin infection. Signs of infection include increasing pain, warmth, swelling, pus, or spreading redness.

Temporary extra hair shedding can occur when an inflamed or very itchy scalp is scratched repeatedly. Clear bald patches, broken hairs, or scarring are not typical and should be assessed for another cause.

Dandruff can also affect emotional well-being. Visible flakes may cause embarrassment or make you feel self-conscious at school, work, or in social situations. Effective symptom control often reduces this impact.

Prevention

Dandruff cannot always be prevented. The tendency to develop it is linked to your skin, scalp

oils, and response to naturally occurring yeast.

Once symptoms are controlled, regular scalp washing and occasional continued use of an effective anti-dandruff shampoo may reduce flare-ups. How often it is needed differs between people and products, so follow the label or advice from a healthcare professional.

Use hair products gently. If a particular dye, spray, oil, or styling product repeatedly causes burning, itching, or redness, stop using it and consider having the reaction assessed.

Stress does not directly cause every case, but some people notice flares during stressful periods. Sleep, regular routines, and practical stress management may help if this is a clear pattern for you. Special diets and dietary supplements have not been shown to reliably prevent ordinary dandruff.

Living with it and what to expect

Dandruff often follows a long-term pattern of improvement and recurrence. Treatment may clear or greatly reduce the flakes, but they can gradually return after treatment is stopped.

Over months or years, you may learn which shampoo works, how often your scalp needs washing, and what tends to trigger a flare. Some people need treatment mainly during certain seasons. Others use a maintenance shampoo regularly.

The condition may improve with age, but there is no set timeline. A flare does not mean you have done something wrong or that the treatment has permanently failed. It may simply mean that treatment needs to be restarted or reviewed.

Most people can continue their usual work, exercise, hair care, and social activities. Dandruff does not damage the brain, spread through the body, or pass to other people. You do not need to avoid sharing space with others, although sharing combs and brushes is generally discouraged because other scalp conditions can spread that way.

If your symptoms change significantly, reconsidering the diagnosis can be more useful than repeatedly trying stronger dandruff products.

When to get medical help

Arrange a routine appointment if:

Dandruff alone is not an emergency.

Seek prompt medical care if your scalp becomes increasingly painful, hot, swollen, or starts draining pus, as these can be signs of infection. Fever with rapidly spreading redness also

needs urgent assessment.

Get emergency help for swelling of the lips, tongue, or throat, breathing difficulty, or collapse after applying a hair or scalp product. These may be signs of a severe allergic reaction rather than dandruff.

- Symptoms continue after several weeks of correctly using an anti-dandruff shampoo
- Itching, redness, or scaling is severe or regularly disrupts sleep
- Scaling affects your face, ears, chest, or other areas
- You have patchy hair loss, broken hairs, thick plaques, or scalp sores
- Symptoms began after a new hair product and do not settle after stopping it
- A child has marked scalp scaling or hair loss
- The condition is affecting your confidence or daily life

Common questions

Is dandruff caused by not washing my hair enough?

No. Dandruff is linked to skin shedding, scalp oil, yeast, and inflammation rather than poor hygiene. Infrequent washing can allow flakes and oil to build up, making the condition more visible.

Is dandruff a fungus?

Dandruff is not simply a fungal infection. A yeast called Malassezia normally lives on the skin and appears to contribute to dandruff in people who are sensitive to it. Antifungal shampoos can help control this part of the condition.

Can dandruff make my hair fall out?

Dandruff does not usually cause permanent hair loss. Heavy scratching or inflammation may contribute to temporary shedding. Patchy loss, broken hairs, or scarring suggests another condition and should be checked.

Why does my dandruff keep coming back?

Treatment controls the processes that cause flaking, but it does not permanently change your scalp's tendency to develop dandruff. Symptoms commonly return when treatment stops, so some people need occasional maintenance treatment.

Should I put oil on a dry, flaky scalp?

Oil may soften loose scale, but dandruff is often associated with an oily scalp rather than

simple dryness. Heavy scalp oils may trap scale or worsen symptoms in some people. If the scalp burns, cracks, or stays very dry, another condition may be present.

Is dandruff contagious?

No. You cannot catch dandruff through touching, close contact, towels, or pillows. However, some conditions that resemble dandruff, such as tinea capitis or head lice, can spread between people.

Sources

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