

# Seborrhoeic Dermatitis

Seborrhoeic dermatitis is characterised by red, scaly patches that develop on the scalp, face, and upper trunk. It is more likely to affect men than women. It is commonly aggravated by changes in humidity, changes in seasons, trauma (eg, scratching), or emotional stress. The usual onset occurs with puberty. It peaks at age 40 years and is less severe in older people. Approximately 1 to 3 percent of adults suffer from seborrhoeic dermatitis. **Dandruff** is a mild form of seborrhoeic dermatitis and is estimated to affect 15 to 20 percent of the population.

## Cause

The cause of seborrhoeic dermatitis is unknown. There is evidence that a type of fungus called malassezia has an influence. Malassezia is normally present on the skin surface. With seborrhoeic dermatitis, there is evidence of an abnormally high level of malassezia fungi on the skin which leads to an inflammatory response.

## Symptoms

Seborrhoeic dermatitis presents as redness of the skin and scale, with some itch. Seborrhoeic dermatitis most commonly affects the sides of the nose and the nasolabial folds (skin folds that run from each side of nose to corner of mouth), eyebrows, glabella (space between eyebrows and above the nose) and scalp. The chest, upper back and armpits are less commonly affected. It tends to be worse under moustaches and beards in men so shaving is recommended. Cradle cap is a form of seborrhoeic dermatitis found in infants.

## Diagnosis

Diagnosis is generally by physical examination. Depending on the part of the body affected, certain other conditions which display similar symptoms should be discounted. On the scalp it should be differentiated from psoriasis, atopic dermatitis, and impetigo. On the face, rosacea, contact dermatitis, psoriasis, and impetigo should be discounted and on the trunk, pityriasis versicolor and pityriasis rosea must be discounted.

## Similar conditions which should not be confused with seborrhoeic dermatitis

**Psoriasis**- this is a condition of unknown cause. About 80% of people living with psoriasis have plaque psoriasis, also called "psoriasis vulgaris." Plaque psoriasis causes patches of thick, scaly skin that may be white, silvery, or red. Unlike seborrhoeic dermatitis, these patches can develop anywhere on the skin. The most common areas to find plaques are the elbows, knees, lower back, and scalp. The margins tend to be less sharply demarcated in seborrhoeic dermatitis than in psoriasis.

**Atopic Dermatitis**- Atopic dermatitis is a chronic skin condition that runs in families. It often starts out as dry, extremely itchy skin. The rash may become very red, swollen and sore. The more you scratch it, the worse it generally gets. A clear fluid may leak from the rash. Eventually, the rash will crust over and start to scale. Common places for the rash are in the elbow creases, behind the knees, on the cheeks, and on the buttocks.

**Impetigo**- Impetigo is a skin infection caused by the common Staphylococcus bacteria. The infection causes eruptions of blisters and scabs on the skin. It usually occurs in children or adolescents. Those with existing eczema are more at risk of contracting the infection. While not a serious condition in itself, impetigo is highly contagious. Impetigo first appears as a small patch of itchy skin that becomes red or inflamed. Small blisters develop, which may weep a yellow fluid. This fluid becomes crusty, forming scabs, and new blisters may form. The infection is typically localised and confined to the face, and around the mouth and nose, although it may also appear on the legs.

**Rosacea**- Rosacea is a skin condition of the face that tends to run in fair-skinned families and tends to occur in people who blush easily. Symptoms usually begin in adults between the ages of 30 and 60. Its cause is unknown. It often begins as redness that looks like a blush across the nose, cheeks, chin or forehead. As time goes on, red pimples and pus-filled bumps may appear. Some people also notice small blood vessels across their nose and cheeks. In some people, the skin of the nose may become red and thick.

**Pityriasis rosea**- pityriasis rosea is a scaly, reddish-pink skin rash. It can look like eczema or psoriasis. It is most common in children and young adults, and usually occurs in spring and autumn.

**Pityriasis versicolor**- Pityriasis versicolor is a rash caused by yeast called 'pityrosporum'. It normally affects people at puberty probably because of hormonal changes and increased sebum production. In sufferers, pityrosporum multiplies on their skin more than usual, which leads to a rash. The rash usually starts as small pale patches. At first these usually appear on the chest, neck, or upper arms. The rash sometimes spreads to the stomach, thighs, and back. More patches may appear, and patches next to each other may join together.

The affected skin may become slightly scaly. The rash is usually pale, and is barely noticeable if you are fair-skinned. Affected areas do not tan, and therefore the rash becomes more obvious on tanned skin. The pale patches are more obvious if you have dark skin.

## Seborrhoeic dermatitis associated with disease

**HIV infection-** Seborrhoeic dermatitis is common in patients with HIV infection. Before the introduction of effective antiretroviral therapies, up to 40 percent of HIV positive patients and 80 percent of those with AIDS had seborrhoeic dermatitis. The possibility of HIV infection should be considered in patients presenting with new onset severe seborrhoeic dermatitis.

**Neurological disorders** — Seborrhoeic dermatitis is more common in patients with Parkinson's disease. Other neurological disorders where seborrhoeic dermatitis is more common include mood disorders such as depression and tardive dyskinesia, a disorder characterised by repetitive involuntary movements, often caused by antipsychotic medication.

## Treatment Options

### Seborrhoeic dermatitis of the scalp (including Dandruff)

Daily shampooing of the scalp with a medicated shampoo helps control scaling and itch. For best results, the shampoo should be left in place for five to ten minutes before rinsing. Examples of classes of shampoos available include keratolytic shampoos, regulators of keratinisation, antimicrobial agents and antifungal agents.

Keratolytic agents soften, dissolve and release scale seen in dandruff. Keratolytic agents include salicylic acid and sulphur. Over the counter preparations containing salicylic for the treatment of seborrhoeic dermatitis include Capasal<sup>®</sup> shampoo and Cociois<sup>®</sup> ointment. Cociois<sup>®</sup> ointment also contains sulphur and Coal tar. The fact that Cociois<sup>®</sup> has to be kept on the scalp for an hour before shampooing makes it less convenient to use than other therapeutic shampoos available.

Regulators of keratinisation include zinc and tar. Zinc pyrithione (Head and Shoulders<sup>®</sup>) is thought to control dandruff by reducing scale and oily sebum production. Coal tar has been classically used to treat psoriasis; however it is also effective in treating dandruff. Problems of staining, its strong odour and messiness limit the use of coal tar preparations. Tar products work by dispersing scales. There are many over the counter coal tar products available including T-gel<sup>®</sup> shampoo and Polytar<sup>®</sup> liquid.

Combination products of coal tar and other agents such as salicylic acid are common (Eg) Capasal<sup>®</sup> shampoo.

Antimicrobial agents such as selenium sulphide control dandruff. Selsun<sup>®</sup> is available over the counter in Ireland and is also used to treat pityriasis versicolor (discussed last week) because of its effectiveness on the pityrosporum yeast that causes it.

Antifungal treatments such as ketoconazole and ciclopirox are very effective in treating seborrhoeic dermatitis. Shampoos containing the antifungal agents ketoconazole or ciclopirox are effective in the control of scalp seborrhoeic dermatitis including dandruff. Many trials have proven the effectiveness of ketoconazole. Brands of ketoconazole shampoo available to buy over the counter in Whelehans include Nizoral<sup>®</sup> shampoo. Whelehans also stock Ketozol<sup>®</sup> shampoo, which is a less expensive but equally effective generic form of ketoconazole shampoo. Stieprox<sup>®</sup> shampoo is the brand name of ciclopirox available. It is only available on prescription from your doctor.

Low potency corticosteroids may be prescribed by a doctor if other treatments prove ineffective. They should be used daily until improvement is seen. They should not be used for longer than a few days in seborrhoeic dermatitis. Locoid<sup>®</sup> scalp application, Elocon<sup>®</sup> scalp application and Betnovate<sup>®</sup> Scalp application are treatment options available on prescription. Topical corticosteroids may hasten recurrences, may cause dependence because of a rebound effect, and should only be used short-term.

Tea tree oil is a natural remedy derived from the leaves of an Australian tree called melaleuca alternifolia. It is often used for the treatment of dandruff. It is available as a shampoo. Trials have shown that tea tree oil can improve the symptoms of seborrhoeic dermatitis and dandruff. However, unlike other treatment options available, it will not clear it up completely.

### **Non-scalp seborrhoeic dermatitis**

Antifungals, topical corticosteroids, or combinations of the two are the standard treatments for non-scalp seborrhoeic dermatitis. Ketoconazole shampoo is approved non-scalp seborrhoeic dermatitis. Ketoconazole cream (Nizoral<sup>®</sup> cream) or oral terbinafine or fluconazole may be prescribed by your doctor for more severe non scalp seborrhoeic dermatitis. As with seborrhoeic dermatitis of the scalp, low potency corticosteroids are only prescribed for short term use in non scalp seborrhoeic dermatitis if other treatments fail. Creams or lotions are best tolerated on the face. Hydrocortisone 1% cream should be the first choice corticosteroid in seborrhoeic dermatitis due to its mild potency. It should only be initiated by your doctor for the treatment of seborrhoeic dermatitis.

## Conclusion

For mild to moderate seborrhoeic dermatitis, including dandruff, medicated shampoos containing salicylic acid or selenium sulphide are often effective treatment options. Combination treatments are useful in patients who do not respond to a single agent. Medicated shampoos containing ketoconazole, ciclopirox, selenium sulphide, coal tar, salicylic acid and zinc pyrithione should be used at twice weekly for at least a month and if necessary, indefinitely. Ketoconazole 2% shampoo is the most effective treatment for moderate to severe seborrhoeic dermatitis. Combining ketoconazole with a steroid solution is effective where inflammation is a problem. Corticosteroids should never be used routinely. Because of its efficacy and low incidence of side effects, I always recommend ketoconazole shampoo as the treatment of first choice for dandruff.

**Disclaimer: Please ensure you consult with your healthcare professional before making any changes recommended**

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