

# SEBORRHEIC DERMATITIS

## BACKGROUND

Seborrheic dermatitis is characterized by greasy yellowish scale on a background of erythema. It occurs in areas with lots of sebaceous glands including the scalp, external ear, central face, upper trunk, underarms, and groin. Its most common and mildest form is dandruff—whitish scale of the scalp and other hair-bearing areas without any underlying erythema.

Seborrheic dermatitis is a chronic and relapsing condition that can be diagnosed clinically. It tends to be worse in colder, drier climates and improves during summer months—especially with ultraviolet exposure. Stress can also play a role in initiating or worsening flares. Individuals with seborrheic dermatitis have an overabundance of *Malassezia*, a yeast that is normally found on the skin.

Why some people get seborrheic dermatitis and others do not is not clear, but the reason likely has to do with differences in immune responses to *Malassezia*. Interestingly, *Malassezia* has been shown to have immune cross-reactivity with *Candida*—yeast commonly found in the GI tract. People with seborrheic dermatitis have been found to have increased levels of *Candida* antigen in their stools and on the tongue, suggesting that they may have higher levels in their GI tract. Additionally, seborrheic dermatitis does improve in some patients treated with oral anti-yeast medications.[1]

Seborrheic dermatitis can be more extensive and difficult to treat in people with Parkinson's and HIV; treating these conditions can lead to improvement in the seborrheic dermatitis.

## TREATMENT

### SKIN CARE

The mainstay of treatment for seborrheic dermatitis is frequent cleansing. Medicated soaps or shampoos containing zinc pyrithione, selenium sulfide, ketoconazole, sulfur, salicylic acid or tar give additional benefit. These should be applied to the affected area and left on for 5-10 minutes before being rinsed off. Medicated shampoos and washes can be used every day to every other day until symptoms are controlled. Some people may need to repeat this once to twice a week to maintain clearance. For men with seborrheic dermatitis in hair-bearing areas of the face, shaving alone or in combination with other topical therapies can resolve the problem

## NUTRITION

### YEAST ELIMINATION DIET

While there are no good clinical studies, yeast and mold elimination diets may be helpful for people who have a difficult time controlling their seborrheic dermatitis. This entails eliminating breads, cheeses, wine, beer, excessive carbohydrates, and other foods made by yeast or fungi. Taking high-quality probiotics in conjunction with this type of diet helps ensure that the gut gets repopulated with healthy bacteria and yeast. For more details, refer to the Whole Health tool "[Elimination Diets](#)."

### ANTI-INFLAMMATORY DIET

Healthy dietary choices are important for overall health. Anti-inflammatory or Mediterranean-style dietary approaches have been found to enhance many aspects of health—especially in the setting of inflammatory diseases. Seborrheic dermatitis is an inflammatory condition and may improve when dietary choices include foods that inhibit rather than promote inflammation. More information about these dietary approaches can be found in the Whole Health tool "[Choosing a Diet](#)."

**Note:** Please refer to the [Passport to Whole Health](#), Chapter 15 on Dietary Supplements for more information about how to determine whether or not a specific supplement is appropriate for a given individual. Supplements are not regulated with the same degree of oversight as medications, and it is important that clinicians keep this in mind. Products vary greatly in terms of accuracy of labeling, presence of adulterants, and the legitimacy of claims made by the manufacturer.

### OMEGA-3 FATTY ACIDS

Omega-3 fatty acids have been shown to decrease the production of inflammatory compounds. Ideally, omega-3 fatty acids would come from foods such as fatty fish (salmon, mackerel, and sardines), flaxseeds, and walnuts. When that is not possible, supplements can be helpful. For more information, refer to the section on fats in the "[Food and Drink](#)" Whole Health overview.

#### Dose[2]:

- 1 tbsp of flax oil for every 100 lb daily
- 1-2 tbsp ground flaxseeds daily
- 1-2 gm fish oil capsules twice daily

## VITAMINS AND MINERALS

### BIOTIN

Biotin has been used in infants with seborrheic dermatitis—both treating the infant directly and treating the breastfeeding mother.[3] Results have been mixed, and there are no trials in adults. However, biotin supplementation is safe and may be worth a try.

- **Dose:** Up to 5-10 mg/day

Food sources: egg yolk, salmon, liver, avocado, carrots, bananas, cauliflower

## TOPICAL BOTANICALS

### TEA TREE OIL

Tea tree oil has been shown to kill yeasts implicated in seborrheic dermatitis. Because it can cause contact dermatitis, undiluted tea tree oil should never be applied directly to the skin.

- **Dose**[4]: 5% tea tree oil shampoo applied to scalp or skin for 3-10 minutes

### ALOE VERA

Aloe vera is a succulent plant whose thick leaves contain an inner pulpy mucilaginous gel. Some compounds in aloe vera have been found to have anti-inflammatory and anti-itch properties that may be beneficial in seborrheic dermatitis. Development of contact dermatitis is possible.

- **Dose**[5]: Apply gel two to multiple times a day

### QUASSIA AMARA

Also known as Bitterwood or Amargo, this evergreen shrub is found in northern parts of South America. It contains several compounds that have antifungal and anti-inflammatory properties. One study of 60 patients with seborrheic dermatitis looked at a topical gel containing 4% quassia extract and compared this to treatment with 2% ketoconazole and 1% ciclopirox olemine over four weeks. At the end of the study there was a significant benefit in the 4% quassia extract group.[6] This appears to be a safe, effective alternative for more conventional treatments for seborrheic dermatitis.

- **Dose:** Apply thin layer of 4% gel once to twice a day.

## SOLANUM CHRYSOTRICHUM

This plant has been traditionally used to treat fungal infections of the skin. A 5% methanolic leaf extract has been shown to have activity against several dermatophytes.[7] *Solanum chrysotrichum* has also been shown to have antimycotic activity. One double-blinded controlled study including over 100 patients with confirmed seborrheic dermatitis randomized subjects to receive either 2% ketoconazole shampoo or a shampoo containing standardized extract of *S. chrysotrichum* three times a week for four weeks. There was no difference seen in the clinical response suggesting that *S. chrysotrichum* is a valid treatment option for seborrheic dermatitis.[8]

- **Dose:** 5% *S. Chrysotrichum* shampoo three times a week for four weeks

## AVOCADO OIL

Application of oil can help remove the scale associated with seborrheic dermatitis. Avocado oil can be especially soothing to affected skin because it is thicker than many other oils, and some of its components have been shown to have antifungal properties.[9]

## TOPICAL OVER-THE-COUNTER MEDICATIONS

### ANTIDANDRUFF SHAMPOOS

Refer to the section above on skin care.

### TOPICAL IMMUNOSUPPRESSIVES

Hydrocortisone is a topical steroid that can be purchased over the counter at concentrations of 0.5% or 1% cream. It is fairly safe to use on an intermittent basis and can help with the inflammation of seborrheic dermatitis. The main risk is that over time it can cause thinning of the skin. Because it promotes growth of the yeast that contributes to seborrheic dermatitis and can cause a rebound flare when stopped, hydrocortisone should only be used to minimize symptoms along with medicated topicals and should never be used alone for treatment. Topical tacrolimus or pimecrolimus can be helpful in managing symptoms of this condition as well. A thin layer should be applied once to twice a day only when needed.

## OTHER THERAPIES TO CONSIDER

### MIND-BODY

Seborrheic dermatitis is more common in people who suffer from depression. Addressing depression with Cognitive Behavioral Therapy or other forms of psychotherapy can be helpful—especially for patients whose symptoms fluctuate with the stability of their mood. For additional suggestions, refer to the Whole Health overview “[Depression.](#)”

## PREVENTION SUMMARY: SEBORRHEIC DERMATITIS

- Take an anti-inflammatory dietary approach: reduce intake of refined carbohydrates
- Consider avoiding foods that promote yeast growth such as bread, cheese, wine, and beer
- Consider taking an omega-3 supplement
- Consider taking a good-quality multivitamin and possibly adding extra biotin
- Use antidandruff shampoos to control symptoms
- Learn about different approaches for stress management

## RESOURCE LINKS

- [Elimination Diets](https://wholehealth.wisc.edu/tools/elimination-diets/): <https://wholehealth.wisc.edu/tools/elimination-diets/>
- [Choosing a Diet](https://wholehealth.wisc.edu/tools/choosing-a-diet/): <https://wholehealth.wisc.edu/tools/choosing-a-diet/>
- [Passport to Whole Health](https://wholehealth.wiscweb.wisc.edu/wp-content/uploads/sites/414/2018/09/Passport-to-Whole-Health-3rd-Edition-2018.pdf): <https://wholehealth.wiscweb.wisc.edu/wp-content/uploads/sites/414/2018/09/Passport-to-Whole-Health-3rd-Edition-2018.pdf>
- [Food and Drink](https://wholehealth.wisc.edu/overviews/food-drink/): <https://wholehealth.wisc.edu/overviews/food-drink/>
- [Depression](https://wholehealth.wisc.edu/overviews/depression/): <https://wholehealth.wisc.edu/overviews/depression/>

## AUTHOR(S)

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