

Three Steps to Overcoming Scalp Itch

An emphasis on accurate diagnosis and patient-friendly interventions leads to successful management of this common complaint.

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When a patient presents to the dermatology office complaining of scalp itch, he or she may report frustration with the recurrent symptom, a history of failed at-home therapies, and concern about the appearance of associated lesions on the scalp. The clinician recognizes that several dermatoses may be associated with scalp itch in children and adults (Tables 1, 2). Successful management depends on accurate diagnosis and initiation of an effective, patient-friendly treatment regimen.

Step 1. Visual Examination

Evaluation of primary lesions will provide clues to the proper diagnosis. While thickened, silver, scaling plaques obviously indicate psoriasis, a diffuse, fine, white scale—with or without erythema—is a sign of seborrheic dermatitis. Scaling in tinea capitis tends to be well-demarcated and erythematous, with central clearing and fine peripheral scale, with or without associated hair loss. In African-American patients tinea capitis can resemble non-inflammato-

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Scalp Itch

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ry seborrheic dermatitis, presenting as fine scale without erythema.

Discoid lupus erythematosus presents with asymmetric, well-defined, elevated, red to violaceous flat-topped plaques with firmly adherent scale. Follicular plugging is prominent.

With time, irritation, and manipulation (patient scratching and picking), the thick, lichenified plaques of lichen simplex chronicus can progress to prurigo nodularis. In prurigo nodularis, papules or plaques are elevated on an erythematous base; lesions are often excoriated. Note that patients may be reluctant to admit history of pruritus. Asking if they itch or whether they scratch the area may cause a patient to become defensive. Instead, ask the patient how these lesions bother him or her and rely on your clinical observation to assess a possible neurocutaneous element to the presentation.

Actinic keratoses are rough and scaly papules or red or yellowish crusted papules, often on an erythematous base. Seborrheic keratoses are waxy, tan-brown or black macules and papules known for their characteristic “stuck-on” appearance. Tinea amaintacea presents as large, oval, yellow-white plates of scale that may have a warty or papillated surface firmly adhered to the scalp and hair.

Allergic contact dermatitis may be characterized by bright red patches that are well-demarcated with or without scale, often associated with pruritus. Patients will often have a history of newly applied topical and sometimes oral products or agents.

When assessing children, rule out infestation. In addition to active lice, check for nits, which are extremely pruritic and adhere to the base of the hair shaft near the scalp.

Finally, some patients will present with what is commonly called “seasonal scalp itch,” a generalized scalp pruritus of unclear etiology often with associated erythema or minor skin trauma (resulting from patient scratching) but usually with no clearly identifiable lesions. Seasonal scalp itch is common and may have many causes. Humidity, “dry scalp,” or stress may be implicated, as well as oral medications, hair products, hygiene, or metabolic disorders. Occupational exposure associated with wearing headgear, hairnets, or sports equipment may also play a role. Ultimately, the reasons people itch are as varied as the mechanisms that may precipitate the phenomenon.

Although these general descriptions of clinical features share some common characteristics, certain elements of the presentation direct the differential diagnosis. A thorough patient history can further assist diagnosis in many cases, providing details about the onset and duration of scalp itch and associated lesions.

Step 2. Additional Testing

Clinical evaluation and assessment of the primary lesions’ size, shape, color, and distribu-

Table 1. Dermatoses Associated with Scalp Itch in Children

<i>Seborrheic Dermatitis</i>	<i>Tinea Amaintacea</i>
<i>Tinea Capitis</i>	“Seasonal scalp itch”
<i>Atopic Dermatitis</i>	<i>Psoriasis</i>

Table 2. Dermatoses Associated with Scalp Itch in Adults

<i>Neurodermatitis</i>	<i>Actinic keratosis</i>
<i>Seborrheic dermatitis</i>	<i>Discoid lupus erythematosus</i>
<i>Psoriasis</i>	<i>Allergic contact dermatitis</i>
<i>Tinea capitis</i>	“Seasonal scalp itch”
<i>Seborrheic keratoses</i>	<i>Cutaneous carcinoma</i>
<i>Lichen simplex chronicus</i>	(such as SCC, BCC, melanoma)
<i>Prurigo nodularis</i>	

tion along with consideration of the patient history is the first “test” and in some cases sufficient for the clinician to confidently state a diagnosis. Response to standard therapy may be viewed as confirmation of the diagnosis. For example, when it is difficult to differentiate a steroid responsive dermatitis from a fungal etiology, sustained response to a topical corticosteroid will confirm the prior diagnosis; although corticosteroid therapy may initially calm the rash, it does not eliminate the fungus, leading to flare with continued use.

Additional tests may be necessary to reach a firm diagnosis. Tests to consider include:

- KOH preparation to rule out fungal etiology.
- Skin biopsy when clear distinction between various dermatoses is not clinically evident or disease is non-responsive to traditional therapeutic interventions. In the case of scarring alopecia of unknown origin, a biopsy may be used to identify discoid lupus erythematosus.
- Patch testing if an allergen is suspected.
- When the review of systems reveals that the patient has more generalized itch (scalp pruritus might be most troubling, thus prompting the initial appointment) or when reasonable treatment attempts have failed, consider routine laboratory testing to uncover possible systemic causes of generalized pruritus. Order tests based upon severity and symptomatology. For example, a patient who admits feeling sluggish or hyper may be experiencing hyper- or hypo-thyroidism. Testing may include a comprehensive metabolic panel, CBC with differential, TSH with T3 and T4. ANA levels generally are not positive in discoid lupus erythematosus but will be for systemic lupus erythematosus. Though SLE typically presents with generalized itch, localized itch may be reported.

Of course in addition to these tests, a comprehensive occupational and social history may reveal important clues. If the social history reveals recent stress, suspicion of a neurodermatitis may increase. A patient history of occupational sun exposure increases the possibility of AKs and cutaneous cancers.

Step 3. Identify Treatment Challenges

Clinicians are familiar with standard therapeutic interventions for the various scalp dermatoses discussed above. Options include

antifungal shampoos, oils, topical steroids, and antihistamines. Rather than review all of these options in depth, we believe it is helpful to review important considerations that help guide treatment selection and support successful pharmacologic management.

Compliance with the therapeutic regimen is critical. With scalp dermatoses, two primary issues may influence compliance: 1.) Ease of application to hair-bearing scalp and 2.) visibility of scalp dermatoses and the role of hairstyle in a person’s appearance. It is important to choose products the patient can apply easily to the scalp and that will not interfere with the patient’s appearance once applied. If “messier” products or occlusion are necessary, recommend use at bedtime or when convenient to the patient’s schedule. Generally for treatment of the scalp, topical foam formulations offer greatest ease of use because they can be easily applied and spread over large areas with no mess. Solutions are also easy to apply but may drip and are sometimes “oily” feeling. Gels are an option for use on the hair-bearing scalp but are best reserved for localized application. Shampoo formulations provide effective short-contact drug delivery to the entire scalp. Question patients about insurance coverage, which may influence access to a particular vehicle formulation.

Use of multiple products, either in combination or via two or more applications per day, may be necessary. However, it is important to simplify regimens as much as possible. To further support compliance, clearly write out instructions for the patient. Provide a timeline of anticipated response and schedule follow-ups in a period of two to three weeks rather than a month or more. Faster follow-up allows assessment of response to therapy, thus confirming the diagnosis or permitting re-evaluation.

Be particularly sensitive to the needs of elderly patients. Older patients may find medications expensive or directions for use confusing. Keep in mind that patients living in a skilled nursing facility may not have treatments administered as often as directed, so you may need to alter the regimen for optimal results. When using topical corticosteroids, be aggressive. Use the highest appropriate potency for a shorter period of time to provide better results than longer-term use of a lower-potency agent. A high-potency agent

Sun Safety Education at Any Age

If you currently work with local schools to provide sun safety education or are considering getting involved, consider the SunSafe model that incorporates parents, coaches, and teachers. According to a study in *Pediatrics*,¹ a collaborative approach to sun safety education involving teen peer leaders, health professionals, and other adults produced better sun protection behaviors on average among participating teens compared with teens not involved in similar programs.

For your older patients at risk for skin cancer, consider couples training for skin exams. An *Archives of Dermatology*² study found that those who cohabitate are more likely to perform skin exams for melanoma; couples may encourage each other to do skin exams and help each other to perform them. Individuals trained to perform self-exams seek treatment at an earlier stage of melanoma and are less likely to die from it.

Finally, as you emphasize physical sun protection in your message to patients, be sure they understand the true role of clothing in blocking UVB. Standard fabrics seem to provide

relatively little protection, especially when wet. Therefore, emphasize to patients the need for specially-treated sun protective clothing and hats. Recommend at-home UV-blocking laundry additives. These have been shown to effectively reduce UV transmission through multiple subsequent soap and water washings.³⁻⁴

1. Robinson JK, Turrisi R, Stapleton J. Efficacy of a partner assistance intervention designed to increase skin self-examination performance. *Arch Dermatol*. 2007 Jan;143(1):37-41.

2. Olson AL, Gaffney C, Starr P, et al. SunSafe in the Middle School Years: A Community-wide Intervention to Change Early-Adolescent Sun Protection. *Pediatrics* 2007; 119:247-256

3. Osterwalder U, Rohwer H. Improving UV protection by clothing—recent developments. *Recent Results Cancer Res*. 2002;160:62-9.

4. Edlich RF, Cox MJ, Becker DG, Horowitz JH, Nichter LS, Britt LD, Lineaweaver WC, Edlich TJ 3rd, Long WB. Revolutionary advances in sun-protective clothing—an essential step in eliminating skin cancer in our world. *J Long Term Eff Med Implants*. 2004;14(2):95-106.



will yield quick response, thus confirming or refuting the initial diagnosis.

Patient hygiene preferences, which may be influenced by ethnicity or culture, also require consideration. Patients may vary in the frequency of hair washing as well as the types of styling and hair care products they use. It may be helpful to question all patients about hair care product use and frequency of hair washing. Simply explain that this information will help you assess what treatment may be best for him or her.

If you feel the patient should alter the frequency of hair washing (more or less often), explain why and “prescribe” a washing/hair care schedule in your written instructions.

Finally, as noted above, scalp itch may be the result of a recurrent skin condition. Failure of the patient to recognize this fact and the role of intermittent therapy to maintain or control the dermatitis may ultimately lead to dissatisfaction, non-compliance, and treatment failure. Clearly describe the chronic nature of the dermatitis and layout a short- and long-term management plan. Once the initial intervention phase is complete, provide clear, written instructions for the maintenance phase, as well.

Given the above considerations, let’s assess a “standard” regimen prescribed in our practice for seborrheic dermatitis:

Derma-Smoother/FS oil (fluocinonide acetate 0.01%, Hill Dermaceuticals) is a well-known and very effective intervention for scalp psoriasis. In addition to the action of the topical corticosteroid, the oil helps to moisturize the scalp and diminish scale. However, the oil can be messy. We advise patients to apply the oil three to five times per week in the evening. A shower cap may be worn for sleep if necessary, though many patients will simply use an old pillowcase.

In the mornings, patients cleanse the scalp with a medicated shampoo. We have them alternate between Clobex (clobetasol propi-

onate 0.05%, Galderma) and Loprox shampoo (ciclopirox 1%, Medicis). This phase proceeds for two to three weeks at which time all medications are tapered. These shampoos are very effective for acute management of erythematous and pruritic eruptions but are not safe for use over very long periods.

A more appropriate option for long-term maintenance is Salex shampoo (salicylic acid 6%, Coria Laboratories). This shampoo is safe for continuous use over a long period of time. We advise patients to use Salex shampoo a few times per week to help maintain clearance. Salex shampoo or another keratolytic agent may be added onto the intervention regimen for any scaly scalp dermatitis to help reduce scale and thereby enhance penetration of other topical therapies.

Mistakes and Misconceptions

Some common mistakes hinder successful management of scalp dermatoses. A common problem is under-treating pediatric patients. Concerned about risks associated with corticosteroid use, clinicians may either use a product whose potency is too low or cut short the treatment period. In reality, using higher-potency topical corticosteroids for two to three weeks may break the flare cycle, provide rapid clearance, and limit the patient’s long-term exposure to topical corticosteroids.

Be willing to reassess the diagnosis if standard interventions are not yielding the expected response. While poor compliance may account for some treatment failures, incomplete response or lack of response to treatment generally suggests that the initial diagnosis was incorrect. Re-evaluation of lesions, a comprehensive patient history, and additional tests may identify the appropriate diagnosis.

Though we’d like to think it never happens, due to scheduling pressures some clinicians may initiate treatment without first obtaining a biopsy, even when a biopsy is clearly indicat-

ed. It is always better to err on the side of caution: if there is any doubt, obtain a biopsy.

As noted above, patients must receive ample education about the nature of their condition and its treatment. Provide educational brochures and handouts. And give each patient a written, individualized instruction sheet. Patients who experience a relapse may feel that therapy “did not work.” To avoid this, be sure that patients understand the recurrent nature of their condition and the need for faithful adherence to the maintenance regimen. Advise patients what to do should they experience a flare (whether to reinstate the intervention medication, schedule an appointment, etc.).

Finally, do not assume that lack of response signifies non-compliance. Limited or no response may signify an inaccurate diagnosis. Perhaps the diagnosis is accurate but the prescribed drug dosage or potency is too low. Perhaps the patient needs a therapeutic boost (such as occlusion of a topical corticosteroid). Maybe the pharmacy provided the patient the wrong medication. Assess all factors to identify and correct the problem.

Start from Scratch

Approach each case with a fresh perspective. Careful visual exam coupled with patient questioning may lead to an accurate diagnosis and direct a course of treatment. In certain cases, additional questioning and testing will be necessary to identify the underlying etiology.

When treating scalp dermatoses, prescribe patient-friendly regimens that promote compliance. Provide clear instructions and offer education about the nature of the dermatitis and potential recurrence. Emphasize maintenance interventions to promote scalp health and minimize the risk of recurrence.

In the event of non-response, clinicians willing to re-assess the diagnosis and the prescribed regimen have the most satisfied patients. ■