

## A Patch of Scalp Hair Loss

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- This 36-year-old gentleman presents with an area of hair loss, which started around five months ago
- He is well and on no regular medications, but admits that he has been very stressed-out recently regarding the potential loss of his job, and he is also dealing with some financial problems

### What is your Diagnosis?

**A**lopecia areata is a hair-loss condition that usually affects the scalp. It can, however, sometimes affect other areas of the body. Hair loss tends to be rather rapid and often involves one side of the head more than the other.

### Causes of Alopecia Areata

There are several different hypotheses as to what causes alopecia areata. Genetic factors seem to play an important role, since there is a higher frequency of a family history of alopecia areata in people who are affected. In addition, alopecia areata appears to have an autoimmune factor, which causes the patient to develop antibodies to different hair follicle structures. Certain chemicals that are a part of the immune system, called cytokines, may play a role in alopecia areata by inhibiting hair follicle growth. Some studies show that emotional stress may also cause alopecia areata.



Figure 1: A Patch of Scalp Hair Loss

### Prognosis of Alopecia Areata

The progress of alopecia areata is unpredictable. Some people lose only a small patch of hair. Others may have more extensive involvement. Alopecia totalis is the loss of 100% of a person's scalp hair. Alopecia universalis is the loss of 100% of body hair. These last two conditions are rare. In the majority of patients, hair will regrow completely within one year without any treatment.

### Other Hair Loss Conditions

Other diseases that may be mistaken for alopecia areata include:

- **Telogen effluvium** — generalized hair loss caused by pregnancy, certain drugs, high fever, or stress
- **Androgenic alopecia** — also known as male-pattern baldness
- **Trichotillomania** — manually pulling the hair out caused by a psychological disorder
- **Secondary syphilis** — causing a “moth-eaten” baldness pattern over the entire scalp

### *Treatment of Alopecia Areata*

There are several different treatment options for alopecia areata. The most common is observation. If the patch of hair loss is small, it is reasonable to observe it and allow the hair to regrow on its own. Another option is to apply a strong topical steroid, such as betamethasone dipropionate or clobetasol propionate, to the patch. It may take several months for the hair to grow back using this method. Another common therapeutic option is to inject a steroid, such as hydrocortisone valerate into the involved skin of the scalp. Initial regrowth of hair can be seen in four to eight weeks and treatments are repeated every four to six weeks. The main side effect from any steroid use is thinning of the skin.

Minoxidil has been used to promote hair growth and has been shown to result in cosmetically acceptable outcomes in 30% of cases. Minoxidil does not stop the disease process, so halting applications after hair has started to grow back may cause the hair to fall out again.

Irritants are another type of treatment, they are designed to produce a contact dermatitis or irritation at the site, seemingly to stimulate hair growth. The most common irritant used is called dithranol. Some studies suggest that using minoxidil and dithranol in combination may be more effective.

Finally, as a measure when “all else fails,” psoralen ultraviolet A-range (PUVA) light therapy may be used as a treatment. PUVA is also known as photochemotherapy. It involves taking a type of drug called psoralens about two hours before measured exposure to long-wave ultraviolet A-range (UVA) light. This treatment is used most often in severe cases of psoriasis. The initiation of hair regrowth may take 40 to 80 treatments, and complete regrowth can take up to one to two years.

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