



Are hair transplants an option for patients with scarring alopecia?

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The Basics of Hair Transplantation

Hair transplantation is a safe and minimally invasive surgical procedure that can restore the natural appearance of hair for patients living with certain types of hair loss disorders. This is achieved by extracting healthy hair follicles from a “donor site” on the scalp and replanting these hair follicles in areas with the most significant hair thinning and balding.

The sections of hair to be donated, also referred to as donor grafts, tend to be taken from the scalp since this produces the most discreet and natural looking outcome when the hair starts to grow back 6 to 9 months following surgery. This is done by one of two methods depending on the individual’s needs and the extent of hair loss. These methods include Follicular Unit Transplant (FUT) and Follicular Unit Extraction (FUE). FUT involves taking a long strip of skin with healthy hair from the back of the scalp where it is easier to hide the linear incision, whereas FUE involves the removal of multiple individual units of hair follicles, usually from the scalp, however, this method also can be applied to other areas on the body.

For example, if donor hair reserve at the scalp is insufficient due to extensive hair loss, the surgeon may suggest substituting body hair from the beard, pubic area, or underarms to increase the density of hair in the transplant to achieve a thicker, fuller coverage of balding spots. Body hair comes in two varieties: the shorter, thinner hair called vellus hair, and the longer, thicker hair that develops during puberty called terminal hair. Terminal hair is the type of body hair used in these mixed FUE hair restoration surgeries. Since body hair has a shorter growth phase compared to scalp hair, the hair is shorter and differs in its texture, thickness, color, and the number of hair follicles in a unit. To achieve a more aesthetically natural appearance, surgeons often mix body hair with scalp hair; however, this only works for patients who wear shorter hair styles. For patients who have longer hair or for those who would like to wear longer hair styles, using a mixed FUE approach is not recommended.

Hair Transplants to treat Scarring Alopecia?

Not all patients with hair loss are good candidates for hair transplantation surgery. Most patients diagnosed with active forms of scarring alopecia are discouraged from pursuing the costly out-of-pocket surgery because their immune system would likely reject the transplant. For years hair transplantation has been indicated as a cosmetic treatment to restore hair growth

in patients with non-scarring, non-inflammatory forms of alopecia like traction alopecia and male pattern baldness (also known as androgenic alopecia).

Although doctors have not come to a consensus yet on the benefits of hair transplant surgery for patients with scarring forms of alopecia, recent clinical studies do report successful results in some patients with inactive or “burned out” forms of disease. Patients who opt for the procedure could experience a relapse in their disease, and many require additional treatments to promote healing and hair growth post-operation due to inadequate blood supply and difficulties with healing around scar tissue. Studies and clinical trials are currently ongoing to investigate the ways in which Platelet-Rich Plasma (PRP) and stem cells can be harnessed to boost hair growth following surgery.

Although cicatricial (scarring) alopecia is an umbrella term that lumps together many different types of hair loss disorders that have their own unique characteristics and symptoms, most scarring forms of hair loss are inflammatory processes; that is, they arise from the damage caused by the immune system attacking the hair follicle. What triggers this auto-immune response is still not well understood. What we do know is that the immune system, through specialized immune cells called lymphocytes and neutrophils, identifies the hair follicle as a dangerous foreign threat, and with the intention of protecting the body from harm, attacks the hair follicle to eliminate it.

Once this happens the hair cannot grow back because immune-mediated killing permanently damages one of the most important hair follicle structures called the bulge. Found within an area called the infundibuloisthmic region buried underneath the skin near the sebaceous oil glands, the bulge houses the follicular stem cells that allow our hair follicles to go through the normal cycle of growth and shedding. Without these stem cells, once the hair follicle dies, it cannot grow back. Instead, thick fibrous tissue takes its place creating a scar on the surface of the skin, while the blood supply that once fed the follicle shrinks.

Inflammation is unfertile ground for growth

Inflammation is unfertile ground for growth. Transplanting hair follicles in patients with active inflammatory disease is problematic for numerous reasons. First and foremost, it fails to solve the root problem: inflammation. The hyperactive immune system will continue to attack the hair regardless of whether the follicles were transplanted or native from birth. They experience the same fate. Second, the few transplanted follicles that successfully evade the immune system and survive will likely not have adequate blood supply. Because of this they will not receive the oxygen and nutrients they need, making it harder for them to grow where they are planted. In aggressive cases of scarring alopecia where there is extensive hair loss and limited donor reserve, another challenge is finding enough healthy hair to transplant.

Scarring Alopecia in Remission & Surgical Hair Restoration

All that said, patients in remission from scarring alopecia with no signs of active inflammatory disease might be candidates for surgical hair restoration, especially if they have been in remission for several years with no signs of relapse. The best way to figure out whether hair transplantation surgery is right for you is to consult a board-certified dermatologist. Dermatologists specialize in the diagnosis and treatment of hair, skin, and nail diseases and can

tailor treatment plans based on your medical history, symptoms, and goals. Some ways dermatologists determine the inflammatory activity level and the pattern of hair loss include the following simple and quick tests:

- Scalp inspection to identify hair loss pattern
- Magnification of affected areas using a dermatoscope
- Scalp biopsies to look for inflammation
- Hair follicle studies using a microscope
- Hair-pull test, which involves gentle pulling on a small section of hair (~40 strands)
- Blood tests to check hormone levels

In summary, hair transplant surgery could be worthwhile when there is:

- ✓ Enough healthy “donor” hair to transplant
- ✓ Absence of symptoms
- ✓ Absence of active inflammation on biopsy
- ✓ Transplanted hair follicles can grow (i.e., follicular stem cells are unharmed)

Main Takeaways

Talk to a Specialist

If a dermatologist discourages you from pursuing hair transplant surgery, you should consider other treatment options to combat the inflammatory process to achieve remission. Treatments will depend on the specifics of your case, but usually consist of some type of topical or oral corticosteroid to reduce inflammation by putting the brakes on the immune system; an antimicrobial agent will be indicated to treat any bacterial or fungal infections; and sometimes Minoxidil (brand name Rogaine) is used to promote faster hair growth and improved hair retention. Seeking treatment early on is crucial to limit hair loss and scarring.

Money Matters & Scams

Something to keep in mind as you consider your options is that most insurance plans do not cover hair transplant surgery because it is billed as an elective cosmetic procedure. Prices vary by practice and location, but most treatments cost several thousands of dollars. Be mindful of scammers who try to capitalize on this. You should only consult a board-certified dermatologist or a board-certified facial plastic surgeon for their medical opinion. Red flags to look out for in your search for a provider are sales-heavy marketing language. During a consultation, other than paying a small consult fee you should not feel pressured into paying upfront for any services and should feel comfortable seeking a second opinion should you decide hair transplant surgery is the right option for you.

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