

Scalp Expansion

Tissue expansion is a technique used in conjunction with scalp surgery to increase the size and looseness of hair bearing scalp. Regions at the front and top of the head are genetically predisposed to hair loss in many individuals, whereas a region called the donor area at the sides and back of the scalp is resistant to hair loss.

Tissue expansion is often used to enlarge the hair-bearing donor area for restoring areas of hair loss resulting from injury or illness. A scalp expansion physically stretches donor scalp skin over a period of weeks to months prior to surgically removing balding scalp tissue and advancing the hair-bearing skin from the sides of the scalp to replace it. This process allows removal of much more of a balding area and requires far fewer procedures than scalp reduction alone because it uses expanders underneath the scalp to enlarge the flaps of hair-bearing skin.

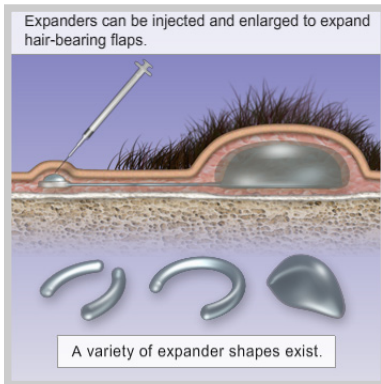




Scalp Expansion Introduction

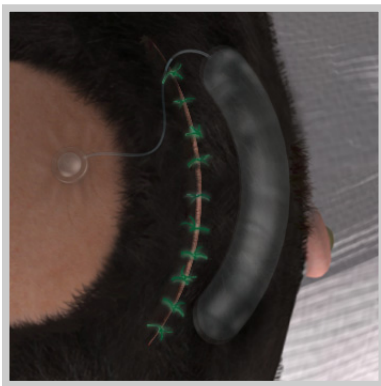
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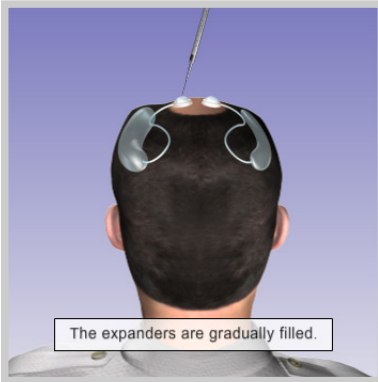
Expanding the Scalp

Scalp anatomy makes scalp expansion possible. Underneath layers of skin from which hair grows on the scalp exists a fatty layer attached to a fibrous tissue called the galea aponeurotica. Beneath this, a layer of loose cellular tissue separates the galea from tissue lining the outer surface of the skull, called the pericranium. This loose tissue between the galea and pericranium allows the skin on the scalp to glide, and it is nearly devoid of blood vessels and nerves. Tissue expanders are placed in the region under the galea. Expanders are silicone, balloon-type devices that can be injected with saline solution and gradually enlarged over a period of weeks. The skin's natural elastic properties allow it to expand while new cells grow, permanently increasing the surface area and blood flow to the hair-bearing flaps that will be used to cover the area of bald scalp that will be removed. A variety of expander shapes allow for scalp flaps to be expanded for various scalp defects, and are tailored to meet individual patient needs.



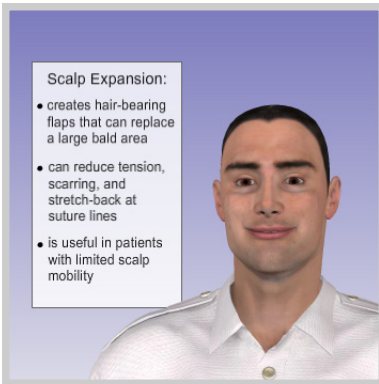
Procedure – Insertion

The scalp expansion procedure starts with preparing expander insertion areas and administering a local anesthetic, often with sedation. Next, incisions are made, which allow sections of the donor region scalp to be elevated. The site and length of the incisions are determined by the chosen expander shapes. Expanders are inserted in the space beneath the galea and laid flat against the pericranium. The absence of nerves and blood vessels in this layer results in minimal bleeding while preserving adequate nerve and blood supply to the scalp. Self-sealing injection ports used for injecting saline solution into the expanders are positioned remotely, beneath the bald area that will eventually be excised.



Procedure – Expansion

After approximately two to three weeks, tissue expansion begins. Sterile saline solution is injected through the skin into the injection ports once or twice a week, gradually filling the expander over a period of weeks to months. During this time, there will be a visible change in the shape of the scalp, which can often be concealed with hair styling, hats, or a head covering. The expanders are surgically removed, the bald spot is excised, and the expanded hair-bearing flaps are advanced to cover the defect and sutured in place as part of a scalp reduction procedure.



Summary

Following the scalp reduction procedure, sutures are normally removed in 7 – 10 days and complete healing takes place within a few weeks. Although there is some discomfort associated with the expansion process and the scalp is temporarily deformed during the procedure, a large area of bald scalp can be excised and replaced with expanded hair-bearing flaps. This procedure also reduces tension created by pulling the flaps together in scalp reduction and therefore can minimize problems associated with scarring at the suture lines and stretching back of balding skin at the excised area. Scalp expansion is especially useful in patients with limited scalp mobility due to scarring or poor laxity. Consult with a specialist to determine if tissue expansion may be the right surgical procedure for your hair restoration needs.

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Before And After Photos



Before



After

your logo here

QUESTIONS FOR YOUR DOCTOR

1. What guidelines should I follow prior to my procedure?
2. How long will the procedure last and will I be under anesthesia?
3. Will I be given medication after the procedure? What tips do you have for me to ease discomfort?
4. Will I have dressings, bandages, or stitches after the procedure? When will they be removed?
5. How long of a recovery period can I expect, and what kind of help will I need during my recovery? Are there special instructions for eating, sleeping, or bathing?
6. When can I return to work, resume normal activity, drive, and exercise?
7. Are there any health and beauty aids that you recommend I should use or avoid (sunscreen, hair products)?
8. Will I have scars?
9. Are the results permanent?
10. Is there anything else I should know?