

## **Hair Transplantation Techniques**

### **A Brief History**

Hair transplantation was recorded in ancient times but “modern” hair transplantation started in New York City in 1959. Early hair transplant physicians and patients were satisfied with having hair where there was previously none but the cosmetic results were far from natural. Many patients today unfortunately still think of rows of hair plugs when they think about hair transplantation.

Especially since the 1990s, smaller grafts have been transplanted to make results look more natural. Since the mid 1990s, follicular unit hair transplantation has made nearly undetectable hair transplant results possible. The profession of hair transplantation has matured and hair transplantation is now the most common cosmetic procedure performed for males in North America.

### **Canadian Hair Transplant Centre Techniques**

If you look very closely at the scalp you will see clumps of 1 to 3 or even more hair shafts. The corresponding hair follicles under the skin are naturally bound in groups we call *follicular units*. Using these intact natural follicular units as our building blocks for hair transplantation is called *follicular unit hair transplantation*. We feel that for most patients, follicular unit hair transplantation gives the best and most natural results. Splitting the follicular units into smaller grafts (with only 1 or 2 hairs) makes the transplanted hair look thinner and using grafts that have more than 1 follicular unit can make the transplanted hair look clumpy or pluggy, especially if there is no natural hair in between these larger grafts.

At the Canadian Hair Transplant Centre we want the best results for our patients so we perform follicular unit hair transplantation far more often than any other technique. Specific techniques will be discussed below.

### **FUT**

The accepted gold standard method for hair transplantation is *FUT* or *Follicular Unit Transplantation* with strip harvesting. It has proven reliable, natural results and is the most efficient method to restore your hair with the fewest surgeries and the lowest total cost. It is by far the most common procedure that we perform.

FUT involves

- planning and marking the recipient and safe donor areas
- trimming only the hair that will be removed
- making you relaxed, comfortable, and numb
- surgically removing a long, narrow, shallow strip of skin containing donor hair follicles
- carefully suturing the resulting gap under minimal tension
- delicately dissecting the strip, using microscopes, into slivers that are 1 follicular unit wide

- carefully dissecting the slivers, using microscopes, into follicular unit grafts
- strategically placing the follicular unit grafts into tiny holes in the recipient area.

This method's advantages include

- high quality grafts prepared under microscopes that have excellent growth and survival rates in our hands
- the ability to transplant large numbers of grafts at one time to complete an agreed upon area in one session or to cover a larger area with thinner but still natural hair in one session

This method's disadvantages include

- a narrow scar in the donor area that is usually 1-2 mm wide and easily hidden by even fairly short hair above it
- manageable discomfort in the donor area in the first few days

## **FUE**

***FUE*** or ***Follicular Unit Extraction*** is a relatively new method that is still evolving. Therefore, there are fewer scientific studies about the results of FUE than with FUT. We have more experience with FUT but we do offer FUE for appropriate patients.

FUE involves

- planning and marking the recipient and safe donor areas
- making you relaxed, comfortable, and numb
- trimming the hair in the donor area
- cutting around individual follicular units with a 0.8 to 1 mm circular device then extracting them
- allowing the tiny holes to heal by themselves
- carefully examining and trimming the follicular unit grafts, using microscopes
- strategically placing the follicular unit grafts into tiny holes in the recipient area

This method's advantages include

- multiple tiny scars in the donor area that are usually less visible than a long narrow scar when the hair is cut very short. (There will always be scars whenever the skin is cut but they will be small.)
- less discomfort in the donor area than with strip excision

This method's disadvantages include

- higher cost than FUT because it is much more tedious
- fewer grafts can be transplanted in a day than with FUT, requiring more days of surgery to transplant the same total number of grafts

## Using *follicular family units* or *double follicular units*

In people with

- very fine hair who want to focus on a key area
- many natural single-haired follicular units
- very curly hair that corkscrews under the skin
- people who have large, old grafts that don't want them revised

combining some of the follicular units that are close together into one graft may sometimes produce better results than using only individual follicular units. You must be aware, however, that this uses up more donor hair so ultimately a smaller area can be covered.

We don't use this technique often but when we do it is basically the same as FUT except that we use the microscopes to cut slivers that are 2 follicular units wide and to prepare some double follicular unit grafts. There will still also be many single follicular unit grafts.

## Corrective Procedures

When people have had procedures performed elsewhere, often with older methods, we do offer a combination of various techniques to modernize and improve their hair transplant. We can almost always make it look more natural and often can make it look fuller. This may involve some or all of

- excising, reducing, or extracting follicles from old grafts and reusing them
- transplanting more hair between or in front of old grafts to camouflage them better
- revising old scars

## Electrolysis

Sometimes electrolysis of a few hair follicles in small grafts that

- have coarse hair
- are angled incorrectly
- have too many hairs
- are too far below the main hairline

will provide a more natural result and more improvement than extraction.

## Techniques We Don't Perform

### Scalp/ Alopecia Reductions

Some surgeons surgically cut out bald skin in the crown and stretch the donor fringes up to reduce the bald area. They may use techniques like extenders or expansion to do this more quickly. We do not recommend this because suitable candidates for reduction are the same people who are excellent candidates for hair transplantation and we feel that hair transplantation is safer and less painful. With progressive balding and the phenomenon called stretch-back, patients

could convert a bald area into a bald area with an obvious scar in it. Scalp reduction can also result in distorted hair direction leading to a “slot deformity.”

### **Flap Surgery**

Some surgeons move or rotate a flap of hair-bearing skin to cover a bald area. We almost never recommend this because it gives very thick hair in a small area with less hair available to treat the rest of the balding area. The hairline created by a flap often has an unnatural shape and there is significant risk of death of the tip of the flap.

The one exception is that we do refer patients who have a slot deformity from previous scalp reductions to specialists for a *(Frechet) triple flap* procedure. This procedure can restore a more natural hair direction and correct the slot but it is very demanding. Only a few surgeons in the world have enough experience to produce reliable results.

### **Laser Hair Removal**

This may be a viable option for some people who had hair transplantation into areas that they regret having had transplanted. We prefer other methods that do not destroy the hair when possible but if laser hair removal is desired we can refer you to an experienced physician.

### **Artificial Hair Transplantation**

While some countries allow this and newer synthetic hairs have been developed, problems with infection and inflammation led to the banning of artificial hair transplantation in Canada and the USA and many countries around the world.