



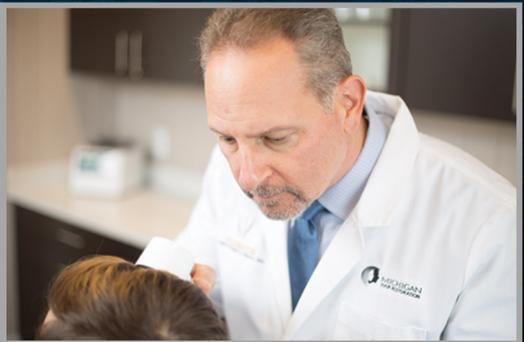
presents...

# KNOW HAIR

A guide to everything you need to know about hair,  
hair loss, and the Neograft hair transplant.

by

**Dr. Mark Berkowitz**



Michigan

HAIR RESTORATION

[DRB4HAIR.COM](http://DRB4HAIR.COM)

KNOW HAIR

Copyright © 2019 by Dr. Mark Berkowitz

All rights reserved. No part of this book may be reproduced or transmitted in any form or by any means without written permission from the author.

Printed in USA by Blurb ([www.blurb.com](http://www.blurb.com))

# Further Information

The information provided in this book is not intended to replace the medical advice of your personal physician or any surgeon performing the Neograft procedure. In addition, the information expressed by the author of this book is the opinion of the author based on his experience performing the Neograft procedure.

**Phone:** (586) 894-8468

**Website:** [www.michiganhairrestoration.com](http://www.michiganhairrestoration.com)

# Table of Contents

## **Part One: Why I had the Neograft**

**Procedure.....6**

## **Part Two: Your Hair.....10**

A. What is hair?.....12

B. How to care for my hair?.....15

C. What are the causes of hair loss?.....18

D. Non-surgical prevention.....19

## **Part Three: The Consultation.....28**

1. How much of my hair can you restore?..... 30

2. Surgery makes me nervous.....30

3. Neograft vs. the Strip Method.....31

4. What is my day like before Neograft procedure begins?.....32

5. What are things like during the surgery?.....34

6. What are things like post surgery?.....34

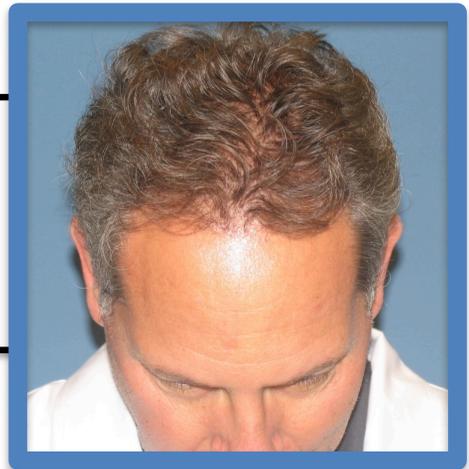
7. Is there any chance the grafts will fall out?....35

8. Can you take hair from other parts of the body?.....36

9. Tell us more about Dr. B.....	36
10. How much does something like this cost?.....	36
11. As a woman, can I get Neograft done?....	37
12. Can you fill in my beard?.....	37
<b>Part Four: Are you prepared for this journey?.....</b>	<b>40</b>
<b>Part Five: Women’s Neograft Results...43</b>	
<b>Part Six: Josh’s Transplant.....44</b>	
<b>Part Seven: A Final Word on Neograft.....</b>	<b>48</b>
<b>Part Eight: Bibliography.....</b>	<b>50</b>



# Part One: Why I had the Neograft procedure.



**Dr. B's Before and After**

*47 y.o. — 2000 Grafts*

When I started my career in medicine over twenty two years ago, one of my specialties was the Blepharoplasty procedure. I performed it as a way of helping people regain lost vision by opening up their eyelids. While this procedure is functional, as it helps to improve vision, many clients request this as a cosmetic procedure.

Little by little, this surgery opened the doors for me to learn and perform more and more cosmetic procedures. This includes, but is not limited to fillers, brow lifts, liposuction, Thermage, and face-lifts. Most of my clients were women, but I also had some men request the same cosmetic work. Some were seeking to improve the facial features they had matured into and others were looking to correct faults that other surgeons had created. Many had the chief complaint that they now looked liked their father or mother. While they may have loved them, they did not wish to transition into their older facial forms.

It was at the beginning of this journey, in my early 30s, that I began to notice my hair was thinning. I blamed it on the stress of medical school and figured it would stop on its own. My father had a full head of hair and so did my grandfathers on each side of my family. But I was fooling myself. The more time passed, the more my hair thinned. It wasn't just my patients that were aging. I was, too. I officially had a receded hairline.

It was hard to explain why, but I started wearing baseball caps more and more. This was suitable for something like the movies, or a sporting event, and being at home, but there was no way to justify wearing

a hat to work. In some ways, I felt like a hypocrite. I was helping people become their best self, meanwhile I didn't feel like I was my best self.

I spoke with my father-in-law who had a transplant in the very early days of the modern day technique known as the Strip Method. Though he was very happy with his results decades later, I couldn't get passed the scar left on the back of his head. He also had a slight "plug" look that so many people fear from having a transplant. This was when I started to research and learn about the Neograft procedure. This was a procedure that extracted and implanted individual grafts. Patients were left with insanely fast recovery, hair placed by the work of an artist, and a more natural look than I had ever seen before.

I decided that this procedure not only seemed perfect for me, but something I could use to help all those men and women needing to regain the confidence of their youth. So, I had the procedure performed on myself. There was no general anesthesia. I listened to Bruce Springsteen during the procedure. I recovered in less than a week. As a matter of fact, I went out to dinner the night of the procedure; went to a movie the next day and walked though the mall two days later. Within months, my hair line was transformed. This also meant my mindset was transformed. I was able to take off the hat and walk around like a time traveler. It helped me socially and helped improve my confidence within the office.

I had the procedure done in 2013, and I can tell you I don't regret a thing. I've enjoyed the ability to show my patients first hand the benefit it has had on

my appearance and in my life. More than that, it has been a wonderful experience to see the benefits it has had on their appearances and their lives.

This book was created to help educate you on everything you need to know about hair, hair loss, hair transplants, and ultimately the Neograft procedure itself. The first part of the book is more of a technical examination of hair, while the second part is a staged consultation. The final section details one of my patient's experience going through Neograft a few years back. You can use what you learn from this book to enter your in-office consultation feeling prepared and ready to go.

Just remember, you aren't alone in this journey<sup>5</sup>:

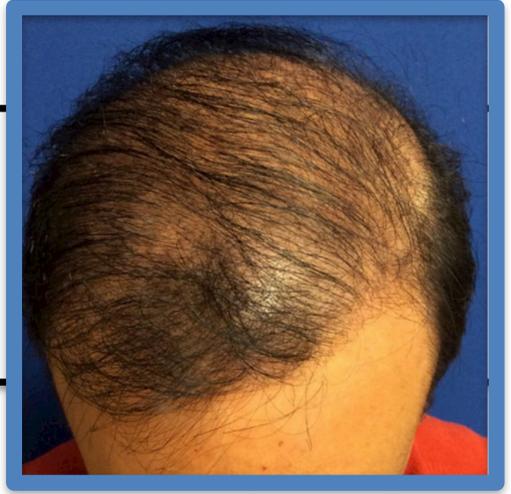
- Over 50% of men have hair loss by age 50
- 20 million women lose hair at some point in their lifetimes
- Transplants went up 76% from 2006 to 2014
- Over 100,000 men have transplants each year

Let's get you started for the change of a lifetime!

# **Part Two: Your Hair**

*A scientific breakdown of your hair and how to deal with hair loss outside of getting a Neograft hair transplant.*

**“I genuinely had a great experience here at the office with Dr. Berkowitz and all of his amazing staff. Very clean and calm environment. Just had the Neograft done and I am proud of my results so far. Highly recommend this place!”**



**Before and After**

*54y.o. — 2 procedures, 2500 grafts each*

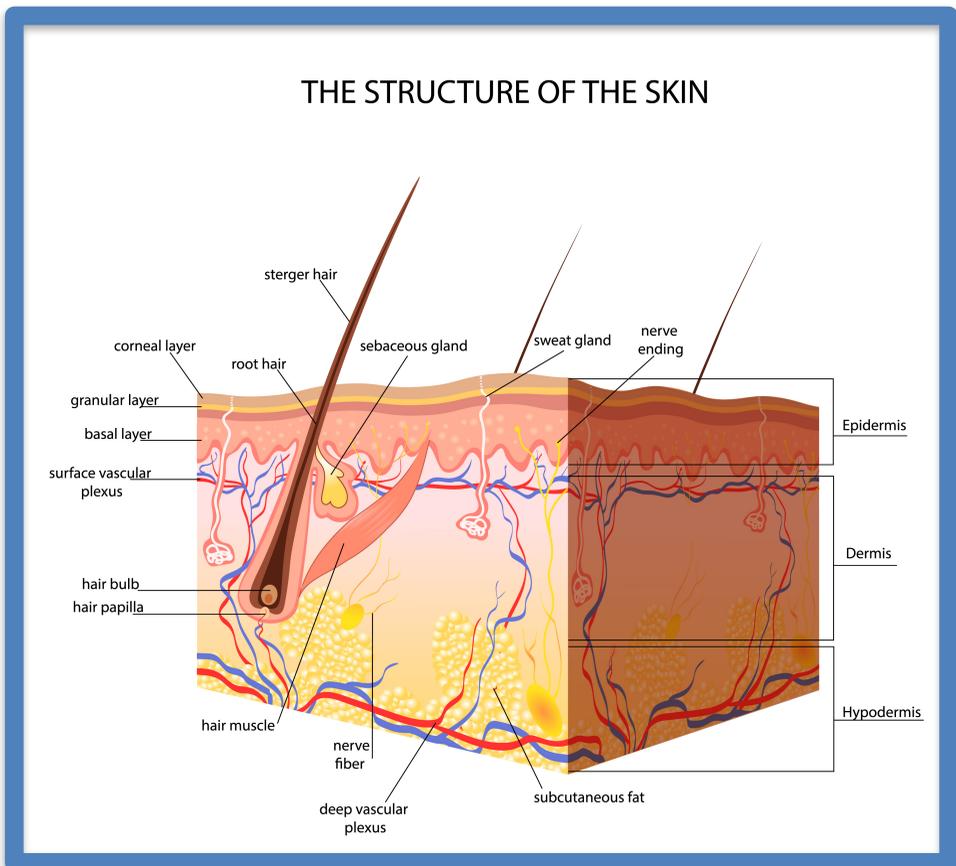


**Before and After**

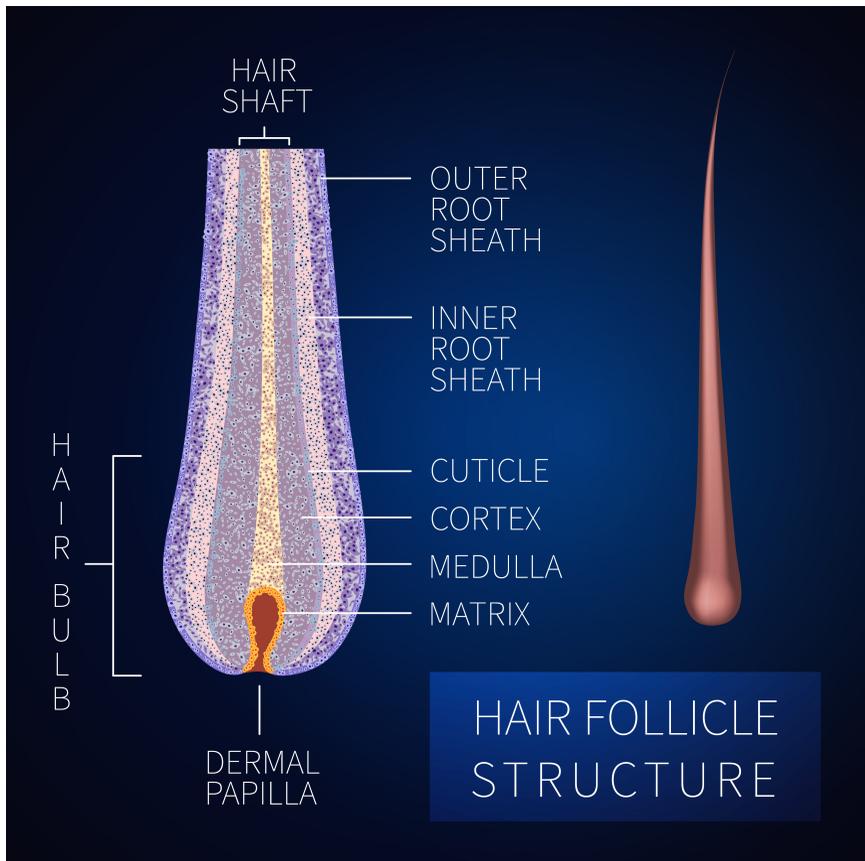
*31 y.o. — 2000 grafts*

## A. What is hair?

Hair is a dead cell that begins a quarter inch beneath the skin. When damage occurs to the bulb hair loss can occur. The hair itself is almost like a wire with a rubbery coating and a meshing of intertwined even smaller wires inside it. Here's a more scientific look:



1. Hair is technically a part of the skin, which has three layers:
  - The Epidermis: One millimeter layer of the outer skin; made up of dead cells that are constantly being removed and replenished
  - The Dermis: A thick two to three millimeter layer in the skin; made up of sebaceous oil and contains sweat glands
  - Subcutaneous Fat and Connective Tissue: Maintains the skin through nerve branches and blood vessels; contains hair follicles in the scalp near the upper fatty layer
  
2. The hair follicle has three layers and is four to six millimeters in length. Each follicle has approximately one to four hairs at a width of one-tenth of a millimeter.
  - Outer Root Sheath/Trichelemma: Encircles the follicle within the dermis; creates the pore that skin grows from when it meshes with the epidermis on the skin's surface.<sup>9</sup>
  - Inner Root Sheath: Middle layer, composed of a cuticle that touches the hair; a strong structure
  - The Bulb: Lowest section of the follicle that is made up of inner matrix cells; hair is knit together like tiny wires inside a rubber seal<sup>9</sup>
  
3. The three layers of the hair shaft:
  - The Cuticle: Hair shaft's outer most layer<sup>9</sup>



- The Cortex: Middle layer that contains most of the hair shaft; gives strength through keratin
  - The Medulla: Hair shaft's core
4. The Dermal Papillae: Small extensions of the dermis into the epidermis that make up the bottom of the hair follicle. Responsible for growth length.
  5. Most people have over 100,000 hair follicles on their head and 5 million on their bodies. It's

normal to lose up to 100 hairs per day through the three step process of hair growth and loss.

- Anagen: The active growth cycle of a hair follicle. that will last up to 3 years. This phase makes up 90% of a hair's life.
- Catogen: The period at the end of a cycle when hair falls out.
- Telogen: Hair's dormant period. This can last 3 to 5 months or 10% of the hair's life.

## 6. Hair by Ethnicity<sup>2</sup>:

- Caucasians have the most hair on their heads at 280 hairs/square centimeter. Hair is typically round or oval shape.
- African Americans have thin and fine hair at 169-177 hairs/square centimeter. Hair is typically oval or elliptical shaped.

## B. How to care for my hair?

Perms, tight braids, coloration, and straightening all have the potential to damage hair. The scalp naturally releases a compound called sebum through the sebaceous glands to keep hair healthy. This will emit whether hair has been washed or not, so it's important to help maintain consistent hair care with shampoos and conditioners.

Shampoos control a hair's viscosity, pH levels, fight bacteria, and create welcoming senses, along with nourishing vitamins. Conditioner has a positive electric

charge to it, which is used to counteract hair's natural negative charge. Normal hair shouldn't be greasy or dry. It should hold and rest well.

The following are the steps for a proper hair washing.

- Use warm water.
- Rub shampoo in your hands before applying.
- Massage scalp with finger tips.
- Rinse out shampoo.
- Use conditioner.
- Towel dry.
- Comb wet hair gently.
- Use gel or mousse when hair is damp, but not wet.
- Don't blow dry soaking wet hair.

There are also several vitamin and nutrient filled regiments which can help maintain hair and encourage growth. These include:

- Vitamin A helps protect hair from combatant uncharged molecules. It can be found in foods such as carrots, broccoli, and liver.
- Amino Acids help grow hair by helping red blood cells carry necessary nutrients to hair follicles. They can be found in meats, nuts, grains, soy, fish, eggs, and dairy.
- Vitamin B helps to nourish the hair follicle. It can be found in whole grains, meat, eggs, milk, legumes, seeds, nuts, broccoli, spinach, citrus fruits, and avocado.

- Biotin deficiency has been connected to hair loss. It can be found in many foods, including bread, beans, and fish.
- Vitamin C brings life to collagen that rests between connective tissue and hair follicles. It appears most frequently within citrus fruits.
- Cysteine strengthens hair roots by providing the hair with sulfur.
- Vitamin E stabilizes cell membranes and hair follicles. This can be applied directly to the scalp with various oils and herbs.
- Good Fats such as Omega 3 and Omega 6 can't be manufactured by the body, but aid in many areas of the human body, including hair by nourishing hair follicles. They can be obtained by eating fish, plant seeds, nuts, and even fish oil capsules.
- Folic acid deficiencies have been linked to anemia, fatigue, and the graying of hair. It can be replenished in the body by consuming spinach, lettuce, dried beans, fruits, and other vegetables.

For some people managing a healthy regiment of vitamin intake through food can be quite difficult. Fortunately, in the past few years, companies like Nutrafol have helped men and women link hair with their proper vitamins with ease. Approved by researchers, dermatologists, clinical studies, over 1100 physicians, and various peer-reviews, it is made of 100% drug-free botanical ingredients. Many of the ingredients it is composed of are listed above, and are all used to counteract the effects of stress, genes, and

DHT upon the hair. (DHT will be explained more below.)

### C. What are the causes of hair loss?

Male pattern baldness can be measured by the Norwood scale. Men often lose hair in the crown of their head and then have a receding hair line that works front to back to join it. Should a man be so lucky as to maintain his hair by 60, he is likely to notice a decrease in thickness.

The cause of the hair loss on the scalp in men is the sex steroid and hormone best known as dihydrotestosterone (DHT). It's quite common for men with hairy chests and backs to go bald because the hormone acts like fertilizer on the body and poison to the scalp. It quite literally causes hair follicles to die. There are certain drugs like finasteride, better known as Propecia that can act as a DHT blocker, which we will discuss in the section below.

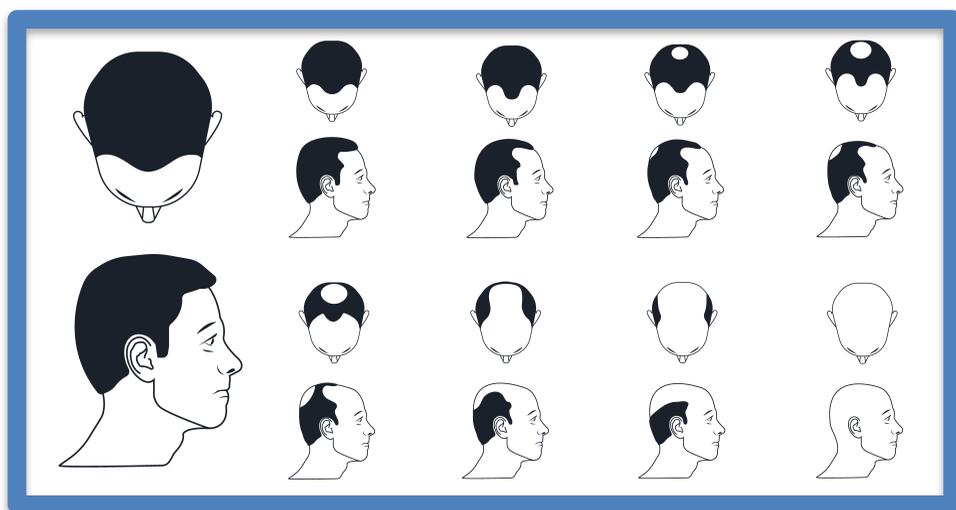
Female baldness can be measured by the Ludwig scale. Women often have more of a sporadic hair thinning. About 1/3 of women will end up losing hair when they begin menopause.

Remember, it's normal to lose up to 100 hairs per day. Hair in the shower drain should not be cause for alarm. You have only truly experienced noticeable balding when 50% of hairs are lost. This marks up to 50,000 hairs in total.

The most extreme form of hair loss is called alopecia. This condition is an autoimmune disorder in which the immune system attacks a person's body.

Although rare, it can manifest in two different forms. Alopecia areata totalis causes you to lose all the hair on your head. Alopecia areata universalis causes a total loss of all the hair on your body, including your head. In some cases, hair does grow back, but this unfortunately can't be expected. Currently, there is no cure for these conditions.<sup>7</sup>

## Norwood Scale



### D. Non-surgical ways to prevent hair loss

While non-surgical methods can prevent further hair loss or cover up what is already gone, they rarely produce significant growth. Surgery may be costly, but the maintenance of non-surgical products adds up quickly over time. It is best to intervene as soon as you

notice hair loss. If you are not ready for surgery these products may provide some benefit.

## 1. Understanding DHT for the Following Products

DHT and testosterone are the two main sex hormones found within men. Testosterone metabolizes into DHT through the help of an enzyme called 5 Alpha Reductase (5AR). 5AR can be found in either the sebaceous glands, keratinocytes, and fibroblasts or in the skin around the sheath of the hair follicles in the scalp.<sup>7</sup> Damage to the follicles occurs when DHT bonds with specialized receptor cells on the hairs. When this process is repeated over and over again, hair will fall out, and balding will occur. The only way to prevent this type of hair loss is to block DHT with finasteride and dutasteride.

- Propecia:

Finasteride, the generic name for Propecia, makes 5AR work far less effectively. Originally created to hinder prostate enlargement, it was approved for the scalp by the FDA in 1992. At just one milligram per day it can decrease DHT levels by up to 70%.

The drug works best on younger patients who started losing their hair within the past two to three years. It's uncommon, but some men over 50 do find regrowth. Some negative side effects include sexual dysfunction and occasional breast enlargement.

It is not approved for pre-menopausal women due to hormonal differences.

- Dutasteride

Approved by the FDA in 2002 at .5mg, Dutasteride also inhibits 5AR. It has similar side effects to Propecia, but can last in your system much longer should you choose to quit using the drug.

## 2. Minoxidil

Commercially known as Rogaine, Minoxil is topical solution that is to be applied directly to the scalp. It was originally administered orally to help lower blood pressure. It is unknown why Minoxidil helps regrow hair. Some doctors believe it causes blood vessels to dilate, providing oxygen to balding areas in a more efficient manner. Regardless of how it works, it has proven to be effective on the crown of the head.

Both men and women are found to gain results if they use the product 1 to 2 times in a 24 hour period. Unfortunately, using the solution by itself is an inferior hair regrowth method compared to finasteride.

There is a special formula of Rogaine that our practice sells called 82M. FDA approved since 1988, it is composed of Minoxidil, Retinoic Acid, and a 5AR inhibitor. Like your standard Rogaine it is applied directly to the scalp. It promotes the dilation of blood vessels, slows aging of keratinocytes, increases growth of the Dermal Papillae cells, and overall cell growth.

## 3. Platelet-rich Plasma (PRP)

PRP for hair loss is multi-step medical process in which the patient's blood is extracted, spun within a centrifuge, and injected back into the scalp. The belief is that one's own platelets will help to stimulate hair growth by increasing the blood supply to the hair follicle. Performed since the 1980s, it has also been shown to heal ligaments, tendons, and muscles.

This three step process begins with blood being drawn from one's arm. It is then spun within a centrifuge for ten minutes. At this point the blood has been broken up into three levels: platelet-poor plasma, platelet rich plasma, and red blood cells. The platelet rich plasma is drawn into a syringe where it is injected into multiple areas of the scalp.

In order for this procedure to be most effective it must be performed in three treatments each a month apart.

#### 4. ALMI for Hair

Hair follicles tend to miniaturize as we get older. This process makes it more likely that hair will fall out. ALMI is a natural solution to recycle the hair's stem cell to its original cell conversion. The process stimulates hair regeneration with the use of your own cells. Using only local anesthesia, body fat is drawn from the abdomen or leg. Then blood is drawn in the same fashion as PRP, which we discussed above. The extraction used from both sites is injected into the scalp. There is little discomfort, with noticeable hair growth arriving as soon as two months.

## 5. Lower Level Laser Therapy

Laser stands for Light Amplification by the Stimulated Emission of Radiation. Lasers have the ability to both destroy and stimulate hair growth depending upon how they target melanin, hemoglobin, and the water within the skin. Low level lasers, specifically, are absorbed by chromophores, which allow the bloodstream to carry an increased amount of oxygen to balding areas. This stimulates the hair follicles at a cellular level causing weaker hairs to increase in strength.

It's possible to use low level lasers through a physician, but they are available to purchase and use within your own home. One of the best at home laser treatments can be purchased through a company called Capillus at our office. It is sold as a baseball cap that is lined with lasers. If worn daily, it can be just as effective in stimulating hair growth as the in office laser. The newest physician offered model needs only to be worn for 6 minutes each day! This is a worthwhile option if you don't have time for repeated office visits.

The lasers in office tend to be stronger and more precise. To be most effective they have to be applied 2 to 3 times a week over the course of 6 weeks; then 1 time per week for another 16 weeks.

## 6. Toupees

In my entire time doing cosmetic work, I don't think I've seen more than one excellent version of the combover. Many people try to cover this balding area up using a toupee or hair system, but these often don't work out much better. Most men go once a month for toupee maintenance. It may look great for the first few days, but then quickly becomes undone. The line between the real hair and the backside of the toupee becomes obvious. In addition, toupees become more expensive than a transplant itself over a long period of time. It can cost up to \$300 per monthly visit to make a toupee look realistic. These systems can occasionally smell, especially the "taped" systems. The tape can also cause irritation to the scalp.

E. Where did the hair transplant develop? And how has it transformed?<sup>4</sup>

- The first hair transplant was performed by plastic surgeon, Dr. J. Dieffenbach in Germany in 1822. He was known best for his work in skin transplantation at the time.
- Modern day transplants began in 1939 with the Japanese dermatologist Dr. Okuda, who found a way to implant hairs through tiny punctures in the skin.
- In 1937, Dr. Tamura helped treat close to 140 female patients with non-androgenic alopecia.
- In the 1950s, Dr. Norman Orentreich performed the first known transplant for male pattern baldness. This was the first in the United States.

- In 1975, Dr. O'Tar Norwood created a scale in his own name to judge male pattern baldness. It is still the standard to this day.

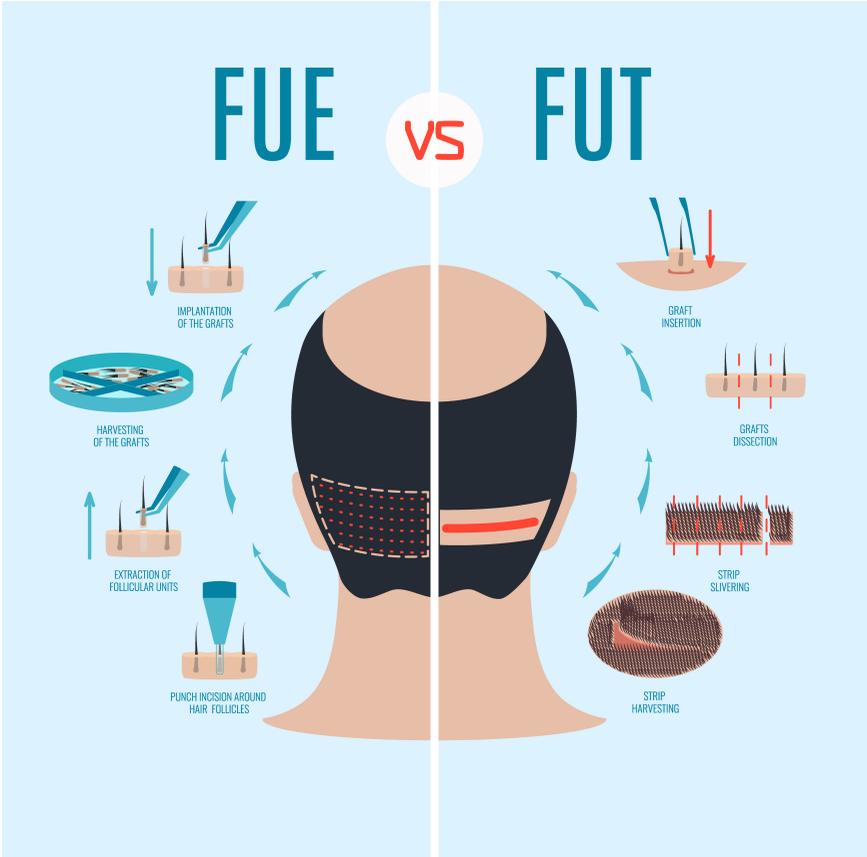
Between the years of 1995 and 1997, Drs. Bernstein and Rassman created a form of harvesting hair called Follicular Unit Transplantation (FUT). A follicular unit is a group of one to four hair follicles. They each contain sebaceous oil glands, nerves, muscle, and small hairs. The procedure has been perfected to allow surgeons to move over thousands of grafts during the course of one transplant. Since the movement of hairs is more precise than previous methods, the classic plug look is more easily avoided.

The process also makes it so the patient's hair line and flow dictates the pattern and placement of hair. This means surgeons are able to mimic natural hair growth ensuring a higher hair density around the temples or crown. The procedure does have its downsides, though. It will produce a permanent linear scar along the backside of the head. This can be covered up if hair grows long, but a buzz cut will most certainly reveal it.

Follicular Unit Transplantation was the most popular form of hair transplantation until 2017 when Follicular Unit Extraction (FUE) took over. One type of FUE is known as **Neograft**. This is the procedure I received in 2013 and have been performing exclusively with my team since. For the rest of this book, I will be walking you through everything you might want to know about the procedure. But I'll give you a *sneak peek* before you begin: Neograft is so

specific in its implementation that it can be used to cover up the linear scar Follicular Unit Transplantation or the Strip Method left you with.

# FUE VS FUT



# Part Three:

## The Consultation

*Nervous about coming in for a consultation? Here's a rundown of everything you might be wondering or didn't think to ask. This way, when you come in, you'll be prepared.*

**“I had a very nice initial consult with the team. Maria was excellent. She went over the basics of the FUE procedure and cost. Following that, Dr. Berkowitz went over more details of the procedure and decided how many grafts I would need. After the date was scheduled I had a pre-op consult with Josh. He was very patient and went over what needs to be done for post op care. I had the procedure done on February 2nd. The recovery has been smooth. I have not had to take even a single pain medication after the surgery. I am back to full physical activity — playing tennis 2-3 times a week along with my full time work (which I resumed after 5 days — although I felt like I could go back the very next day). So far, I am very happy with how my new hair line looks, but I know I have to be patient as full results may take up to a year.”**



**Before and After**  
*23 y.o. — 2500 grafts*



**Before and After**  
*60 y.o. — 1500 grafts*

1. How much of my hair can you restore? I'm particularly worried about the front line and crown of my head.

In one Neograft procedure up to 2500 grafts can be extracted and implanted. I always do my best to create and reinforce the frontal hair line first before I improve the density of hair behind the hairline. During the consultation, and again the morning of the procedure, we will take as much time as necessary to detail the placement of the grafts and hairline. A major influence is the Norwood Scale for men and the Ludwig Scale for women. Both charts were discussed in the Part 2 of this book.

It's important for people to enter their transplant with realistic expectations. While you will walk out feeling anew, it is unlikely that your hairline will return to that of your adolescence. In fact, if any doctor promises you such an outcome, you should choose to search for a second opinion. Take a look at the Norwood Scale and focus on the 4a hairline. Someone in that position should realistically expect to walk out of the procedure with a look similar to the 2a hairline.

As far as the crown goes, I like to refer to it as the black hole of the scalp. No matter how much you try to fill it in, balding areas can always peak through. For this reason, if you really want to target the crown, it may be necessary to implement a second transplant. That is, if you have enough hair to transport.

2. Surgery makes me nervous. Should I stick to non-surgical methods?

We discussed various non-surgical methods of maintaining and increasing hair growth in Part 2. There are many, including, but not limited to, Propecia, Rogaine, and toupees. While proper upkeep with these actions can have positive results, all of them will surpass the cost of a transplant in the long run. On top of this, they can't provide nearly the same growth and overall change a transplant will.

But don't worry. There's no need to be afraid of typical "surgery" with Neograft either. It's actually minimally invasive as surgical procedures go. There is no general anesthesia. Instead only a light sedation is given orally and freezing or numbing the area only takes a few minutes. You'll be able to talk, watch movies, listen to music, and even take time for a lunch break throughout the course of your day.

### 3. Neograft vs. The Strip Method

The Strip Method is slightly less expensive than Neograft, but only because the procedure is less targeted and the blade used is much less costly to the hair transplant surgeon. Once removed, the strip is sliced and diced into several smaller pieces before each graft is removed. As a result, the graft is passed between multiple hands and cut from multiple angles before being transplanted. This results in an increased chance of damaging the graft.

Neograft extracts one graft at a time leaving a near guarantee that the hair and bulb will stay intact. This can leave pinpoint sized scars at each extraction site,

but they won't be noticeable to anyone wearing their hair longer than a skintight haircut. Meanwhile, the Strip Method leaves a long scar trailing the back of the head that is much harder to hide. This scar is even tougher to hide for African Americans. Occasionally this scar can even stretch and widen.

During Neograft, you will be lightly sedated, but alert enough to communicate and enjoy a wide variety of entertainment from movies to television to music. Like I mentioned in the introduction, I was listening to Bruce Springsteen during the course of my transplant.

Finally, Neograft has almost no downtime. Most patients return to work in two to four days. The scabs at the graft sites will fall off between the third and tenth day after the procedure. Following that, results become noticeable as early as three to six months. It can take more than two weeks for recovery to begin in the Strip Method.

With both procedures final results can take 9-14 months.

#### 4. What is my day like before Neograft procedure begins?

Leading up to the procedure, you can generally live your life the same as you have been. The night before use hibiclens to wash your hair. The morning of, wake up and eat a filling breakfast. Wear a button down shirt, so it can be easily removed without touching your scalp. Arrive on time. Take your necessary medications, unless otherwise noted.

Most likely, your doctor will tell you to not use blood thinners a week before the procedure, or pain relievers and anti-anxiety medications the night before as they may affect your sedation.

When you arrive, photos of your current hair's state will be taken if they haven't been taken already. Once this is complete, the donor and implantation areas will be further prepared for the required short haircut. If you have long hair we can pursue the stealth procedure where we keep four inches in length of your hair to cover up the extraction site.

Then we go over everything we've discussed in the past to make sure we're on the same page! I want to make sure I know your goals so we can provide you the best outcome. If your crown is your main concern, then this is highlighted and redrawn using mirrors or pictures for direct visualization.

This is the time for you to speak up if you want any changes. Normally, this process only takes a few minutes, but on occasion we will take up to an hour to make sure you are completely comfortable.

Next, the donor area will be prepped to keep things as clean and sterile as possible. All of our equipment is sterilized using the most stringent techniques and we only use sterile gloves during the procedure.

Finally, the donor area will be numbed with injections that take approximately 3 minutes. I utilize a device that vibrates as I numb helping to distract you and ease any pressure from the numbing medicine.

Once this area is numb, you should be comfortable throughout the day. Now it's time for your

choice of entertainment, or time for a long winter's nap while the procedure is performed in our medical suite.

## 5. What are things like during the surgery?

During your Neograft procedure my team and I will remove individual follicular units without leaving a linear scar. After every unit is removed, a punch is placed in the scalp of approximately one millimeter in width for the follicular units to be implanted. The implantation occurs as the the graft is pushed into the new hole at about 5 millimeters deep. I only implant hairs after doing a thorough examination of them to ensure that the follicle hasn't been damaged.

The process truly can be seen as a work of art. Every patient has their own unique hairline. It is imperative to place punches that match your hairline and fit hairs in that lay the course of your hair's density. In other words, we are able to literally mimic natural hair growth.

## 6. What are things like post surgery?

You'll leave the office with a bandage around your head that will remain in place for two days. Once the bandage is removed, you will notice some redness, potential spots of blood, and even some crusting. The redness should subside within about a week. Crusting or scabbing will go away in 7 to 10 days. The scalp should be cleaned thoroughly, but carefully. Here are a few important things to remember about showers:

- Never rub the transplanted area.

- Shampoo daily without letting your head under the shower head. Use a cup and add a teaspoon of Baby shampoo to a cup of water. Gently rinse your hair using the cup. Place your second hand in between to break up the flow. Use a plain cup of water to rinse.
- Wash the donor area with some force to remove blood from scalp starting at day 5.
- Don't spray water directly on your head.
- If you keep your grafts wet for too long, they will swell up and look like white bumps. These bumps will disappear. Try soaking your head less next time you shower.

It'll take two days before you can consume alcohol, Advil, Motrin, and wear a hat. You'll also want to sleep on your back with your head flat for the same amount of time. I prefer flat to help swelling move away from your face which is more likely to occur if your head is elevated. Within a week, you'll likely be back to your old routine. It may even be possible to return to work within just a couple of days.

## 7. Is there any chance that grafts will fall out?

Every single patient has results from this procedure, though it may take time up to a year for some to find a complete transformation. That being said, we have a 92-98% success rate of holding in the grafts. This is due to the excellence of our team, the Neograft machinery, the time we take to ensure grafts are whole, and the care we take to place them properly.

## 8. Can you take hair from other parts of the body?

Taking hair from other parts of the body, like the chest or back, is really the last option. It is only done when all hair from the preferred donor area, also known as the back of the head, is gone. This is often the case when patients have had multiple transplants over the years.

## 9. Tell us more about Dr. B.

I talked a bit about my hair transformation in Part 1 of this book. I'll expand upon my background here. I'm a Ocularfacial Plastic and Reconstructive Surgeon who has been treating my patients for over 22 years. I am Board Certified in Ophthalmology and Fellowship trained. I've performed thousands of cosmetic procedures in that time. On top of this, I've been voted Top Neograft Provider in Michigan and reached the Top 10 nationally, as well.

I chose to get the Neograft procedure in 2013 after nearly 20 years of hair loss. It was one of the best decisions I've ever made. As you can see in my before and after at the opening of this book, my hairline improved dramatically, and as a result my confidence has as well. This is both in office, out of office, and when sharing the experience with patients who have chosen to take this journey with me.

## 10. How much does something like this cost? Is there a discount for fewer grafts?

The cost of the procedure depends on the number of grafts extracted and implanted during the procedure. It could be as high as \$13,000-\$14,000 or as low as \$6,000-\$8,000 depending on the extent of your hair loss. Most patients find themselves to be somewhere in the middle of those numbers.

#### 11. As a woman, can I get Neograft done?

I have performed transplants on both women and people who are transitioning. For women, hair can be left long for the procedure. In keeping hair long, we use the aforementioned stealth method to camouflage the donor area. This does come at a cost though, as fewer grafts are able to be harvested. We're talking a maximum of 1500 compared to usual 2500 when the donor area is available in its entirety.

#### 12. Can you fill in my beard?

Yes, I have filled in beards and eyebrows before. In today's age of social media, both types of facial hair have become more important than ever in expressing ourselves and our image. You can check out the results in the Before and After photos I have posted below and on the next page.



**Before and After**

*Beard - 1 Week Post*



**Before and After**

*Eyebrows — 1 year post*



**Before and After**

*Eyebrows — 8 months post*

**Part Four:**  
**Are you mentally  
prepared for the  
journey you are about  
to take?**

*Making sure this is the right path for  
you.*

**“I found Dr. Berkowitz when I was looking for a solution to my hair loss. I had been through a strip method hair transplant in the past, but my hairline wasn't what I wanted it to be. Dr. Berkowitz and his team crafted a hairline and the procedure was an astounding success! Definitely worth it for anyone who's looking to restore their hair to a genuine youthful look.”**



**Before and After**

*23 y.o. — 1800 grafts*



**Before and After**

*Work on the Crown — 1 year post*

You may just be heading into your 20's or on your way into retirement. There is no telling when hair loss will negatively impact your life. Ultimately, the decision to get a transplant comes down to your own emotional well being, your finances, and the current state of your hair. In order to have a fulfilling transplant it is necessary that you still have enough hair in your donor area to extract and implant.

Despite all this, the most important factor in deciding on whether or not to get a hair transplant is your everyday confidence. Perhaps your hair line has been receding for years. Perhaps it just started. If you look at yourself in the mirror, head to work, or head out socially feeling self-conscious, then it may be time to make a change. Still, thickening your hair permanently and growing a more youthful hairline are almost guaranteed to help you step in any room feeling more complete.

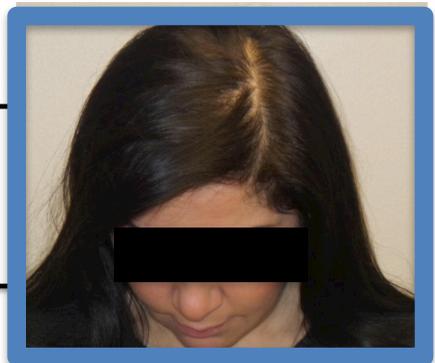
As we have discussed in previous sections, you are going to want to make sure you talk with your doctor at length about how much of a change they can make for you. A misunderstanding as to what your doctor can accomplish has the possibility of diminishing any confidence you could have been rewarded with. But from my experience in the field, I myself am certain that I can bring you the confidence you seek.

# Part Five: Women's Neograft Results



**Before and After**

*1 year post*



**Before and After**

*1 year post*

# Part Six: Josh's Transplant

*An in depth look into one patient's  
story.*



## Josh's Before and After

*25 y.o. - 1,000 grafts*

My journey from hair loss to Neograft has definitely been a gradual, but striking one to me. I don't think it was a specific moment that I realized I was losing my hair. I saw it change in the mirror over a couple years. I just kept thinking, "Holy crap. Where did my hair go?" I mean — am I that old? Where did my hair go? How can I already be at that point in my life where I'm losing my hair? I don't want to look like my dad. Hair loss is a big thing in my family, but I just always told myself it wouldn't happen to me. I'm too young for that.

Working as an aesthetician you start to notice the smallest thing, and that absolutely reflects on your own appearance. It became too much. And to be honest — a lot of people were very surprised I did the procedure. They didn't think I had that much hair loss...until I actually went through the procedure. They were suddenly really surprised by how much hair I actually had.

It's crazy. You look at all these celebrities like Jake Gyllenhaal who have seemingly perfect heads of hair. That's not real life, but from working in the office I noticed that Neograft was the next best thing to real life.

Before the procedure I sat down with Maria and went through the paperwork. She went through and explained everything in detail to me — what I'd be going through, even though I knew it already. The night of the procedure I was a little nervous. I was pretty excited but I was a little nervous. I wrote this in the note section of my phone:

“So it’s the night before my Neograft procedure and I have to admit that even though I have seen this procedure done a couple hundred times, I’m a bit nervous...”

The next morning came. The team made me feel comfortable right off the bat. Any nerves that I had — they went away within minutes of walking in the front door. The procedure itself was super laid back. I was awake for a little bit of it, but I slept through most of the day. When I was awake, I was joking with the team, talking with them, and watching Netflix. And before I knew it the procedure itself was over. The day was very relaxing overall. I was very surprised.

It’s been about six weeks now since I’ve had the procedure. And I’d say that everything has been going great. I kind of knew what to look for as far as the shedding phase where the hair starts to fall out. I was expecting it to happen, but I’ve held onto the majority of the grafts so far. So, I’m seeing better results than I had anticipated.

Everything is lining up for my wedding in May. Like anyone would, I want to look my best. We’re going to have these photos the rest of our lives to show our kids, grandkids, and I don’t want to be the old guy in the photos, especially since my fiancé has a full head of hair. I can’t say if I had started to lose my hair when I met him, but I’m glad he’ll get to see me with one now.

Update: It’s been a few months since I started my Neograft Journey. I knew I was going to see an amazing change from the moment I decided to move forward with the procedure, but I had never anticipated

how happy I would be! I feel like my confidence has been restored. Every day I wake up and look in the mirror and am happy to see the hair I have wanted for so long now. Dr. Berkowitz and his team have been there to answer any questions or concerns I have had along the way. It's only been 4 months and I have been told there is still more growth to come in the next 8 months! Can't wait to see my final result!

# **Part Seven: A Final Word**

*Thank you for taking this journey with  
us.*

**“Great experience having a hair transplant with Dr. Berkowitz and his team!! After meeting the staff and seeing the office at Michigan Hair Restoration I knew I was in the right place. I am so happy with my results and would recommend them to anyone!!”**

It's my hope that after reading this book you'll feel comfortable, excited, and ready for your Neograft procedure. My staff and I will be by your side from beginning to end and everywhere in between. We look forward to meeting with you. Remember I've been through the process just like you, so I'm here to answer any further questions you may have along the way.

**Phone:** (586) 894-8468

**Website:** [www.michiganhairrestoration.com](http://www.michiganhairrestoration.com)

# Part Eight:

## Bibliography

1. Azar, Reza P. *FUE Hair Transplantation: A Minimally Invasive Approach*. Springer International Publishing, 2019.
2. Birnbaum, Mathew R., et al. "Evaluation of Hair Density in Different Ethnicities in a Healthy American Population Using Quantitative Trichoscopic Analysis." *Skin Appendage Disorders*, Karger Publishers, 16 Dec. 2017, [www.karger.com/Article/FullText/485522](http://www.karger.com/Article/FullText/485522).
3. Bouillon, Claude, and John D. Wilkinson. *The Science of Hair Care*. Informa Healthcare, 2008.
4. "Hair, Hair Loss Disease, and Alopecia Information." *Keratin.com, Hair Loss, Baldness, Alopecia, Disease, and Treatment Information*, [www.keratin.com/aw/aw001.shtml](http://www.keratin.com/aw/aw001.shtml).
5. "ISHRS 2015 Data: Hair Transplants Up 76% from 2006." *Plastic Surgery Practice*, [www.plasticsurgerypractice.com/2015/08/ishrs-2015-data-hair-transplants-76-2006/](http://www.plasticsurgerypractice.com/2015/08/ishrs-2015-data-hair-transplants-76-2006/).
6. Ishrs. "Treatments for Hair Loss." *ISHRS*, 19 Mar. 2019, [ishrs.org/patients/treatments-for-hair-loss/](http://ishrs.org/patients/treatments-for-hair-loss/).
7. Ishrs. "Types of Hair Loss." *ISHRS*, 19 Mar. 2019, [ishrs.org/patients/types-of-hair-loss/](http://ishrs.org/patients/types-of-hair-loss/).
8. "NeoGraft - New Home Page." *NeoGraft Automated Hair Transplant System*, [neograft.com/](http://neograft.com/).
9. Rassman, William R. *Hair Loss & Replacement for Dummies*. John Wiley & Sons, 2011.
10. Rogers, Nicole E., et al. *Hair Transplantation*. Jaypee Brothers Medical Publishers (P) Ltd, 2016.

Dr. Mark N. Berkowitz is a uniquely qualified cosmetic surgeon dedicated to helping his patients enhance their appearance. A highly trained and experienced cosmetic surgeon with advanced training in Oculofacial Cosmetic and Reconstructive Surgery, Dr. Berkowitz and his team have placed millions of grafts for his patients.

He has received very high marks in patient satisfaction and has earned awards from RealSelf.com and Vitals.com, recognizing Dr. Berkowitz as one of the top Neograft Hair Restoration Surgeons in Michigan.

Not only has he performed hundreds of Neograft Hair Restorations, but he has also undergone his own Neograft Hair Restoration.



“When you come to Michigan Hair Restoration, I personally guarantee that we will listen to all of your concerns and answer all of your questions. I know how important it is to be well informed and supported when making decisions about your health and appearance. At Michigan Hair Restoration, we are here to help.”

~ Dr. Berkowitz