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Thank you for selecting the Anderson Center for Hair for your hair loss needs. There is quite a bit to know regarding hair loss and the various treatments available for men and women. For this reason I have taken the time to put together the following information to help you prepare for your consultation appointment. I spend time with each and every patient going over goals and objectives, but I realize we are all under time constraints and want to maximize your benefit of our time together.

In order to allow enough time for me to answer all of your questions and address all of your concerns, you will be expected to have read the following information prior to your consultation appointment (allow 20 minutes to read). Please also take time to write down the questions and concerns you have prior to your consultation appointment.

Your consultation will be a time for us to get to know each other, for me to examine your scalp, and then discuss any questions you have about the information contained in this packet, and finally a discussion about your personal concerns, goals, and to formulate your treatment plan.

I look forward to our appointment, and to helping you look and feel your very best.

Kind Regards,

A handwritten signature in black ink that reads 'Kenneth Anderson MD'.

Ken Anderson, MD, ABRPRS, ABOTO
Founder and Chief of Surgery, Anderson Center for Hair
Diplomate, American Board of Facial Plastic and Reconstructive Surgery
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PRINCIPLES OF HAIR LOSS

Hair loss is common across all races and cultures. It affects over 50% of men and over 40% of women. Many patients come to our center looking to “take care” of their hair loss. They seek to have an operation or take a medication that will put balding and hair loss “behind them.” This type of thinking is perfectly reasonable if, for instance, one is considering the removal of a hump on the bridge of one’s nose. A hump on the bridge of the nose is a structural element of the nose, one that can be removed and will not grow back. Hair loss is unfortunately different. It is a permanent and progressive condition, like tooth decay. No one would expect their dentist to do a procedure that would allow you to never brush your teeth again. That doesn’t make any sense, does it? The same goes for hair loss. It is important to remember that **there is no cure for hair loss**. Genetic balding is a *progressive, life-long process*; therefore, the initial surgical plan should consider future hair loss. Unless you’re over about 65 and have lost all the hair you’re going to lose, it is important to take action to prevent further hair loss by using medical therapies. This will help to preserve the results of your hair restoration procedure for as long as possible.

MEDICAL THERAPIES (NON-SURGICAL THERAPIES)

General Information

There are a limited number of FDA-approved, non-surgical hair restoration therapies

- Low level laser hair therapy (LLLT)
- Platelet Rich Plasma (PRP)
- Finasteride (Propecia® or Proscar®)
- Minoxidil (Rogaine®)
- Nizoral® Shampoo

The importance of medical therapy is to add thickness to your existing hair and to slow the hair loss process. A hair transplant surgery is unique in that it does nothing to affect the underlying process that caused the need for the surgery in the first place. Consider a tonsillectomy procedure, where the tonsils are removed. Once this procedure is done, the cause of the need for the procedure is gone...in that there can be no tonsillitis if there are no tonsils. In this way, the procedure is curative. Hair restoration procedures are not curative in nature; it simply involves rearranging the hair that remains on your head. As such, prevention of future hair loss can be as important as the actual surgical procedure to replace what has been lost.

Both slowing the progression of hair loss, and thickening of existing hairs are considered treatment successes, as without the medications and LLLT the hair loss is virtually certain to proceed much faster than if you were not on the medications. It is for this reason that medical therapies are always a part of the treatment of hair loss, even if you desire hair restoration surgery. In my opinion, it is rarely ethical to

discuss a hair restoration surgery without discussing preventive measures to slow the existing rate of hair loss.

In the case of surgical treatment, unchecked and continued hair loss will cause gaps to form between the transplanted area and the receding natural hair in the area. The use of medications will help delay the need for additional surgery, sometimes by as much as 15 years or more. The hair loss process can also affect the donor hair, that is, it can cause thinning of the transplanted hair over the course of 10-30 years. **The medical therapies will help protect your investment in the transplanted hair, and reduce the likelihood you'll need multiple surgeries to keep up with continuing hair loss.**

LASER HAIR THERAPY

Low-level light therapy (LLLT) has been used since the 1960s for the treatment of various medical conditions in a multitude of fields of medicine. Only within the past decade, has phototherapy gained acceptance by hair restoration surgeons for the treatment of hair loss. In 2014 there were 5 separate scientific studies published in the medical literature that thoroughly evaluated LLLT and its efficacy in the treatment of hair loss for men and women. These were not anecdotal reports, but randomized, double-blinded, placebo-device controlled studies proving that LLLT works to halt hair loss, and in some cases reverse it. On average, about 85% of those who use the laser device will notice the rate of hair loss stop or significantly decrease, and a little over 50% will experience hair re-growth. If you were to choose one single non-surgical therapy, the laser device is the most effective.

There are many devices on the market, and we recommend the Capillus® and the Laser Cap® laser device because they have the most number of laser diodes, the most flexibility in sizing and are FDA cleared medical devices. It is not a medical procedure of any sort. You simply wear the laser cap for 30 minutes, three times a week. The device has been demonstrated to increase cellular respiration, and the health of blood vessels in the scalp for thicker, supple and more durable hair shafts. It has also been shown to stimulate the production of melanin, preventing premature greying of the hair shafts. The device comes with a baseball cap, and is completely portable as it comes in its own travel case for maximum convenience.

The Capillus 272 Laser Device



The device can be worn at home, in the car, while doing computer work or surfing the web, or while watching TV, like the woman shown.

Platelet Rich Plasma (PRP)

This treatment involves drawing blood from your arm and spinning it in a special centrifuge to create plasma that has about 100 times the normal concentration of platelets. Platelets contain approximately 35 growth factors that can potentially promote hair growth in cases of male and female pattern hair loss. There are no controlled studies to indicate the chances of success with this therapy, how successful it is at slowing hair loss, or the amount of new hair growth one may expect. There are case reports and anecdotal information that in some individuals the therapy can slow hair loss and in some situations re-grow hair.



The procedure is performed in the office and only takes about an hour. Possible side effects are mild scalp soreness for a day and possible forehead swelling. Although sedation is not required, if you can arrange for a ride home and desire sedation, it will be provided to make you relaxed and comfortable during the procedure.

Finasteride (Propecia®) (see the attached fact sheet for additional information)

Available only by prescription the medication is for men, and is orally administered. The 1mg dose of finasteride is simple to take and is easily incorporated into any daily routine, especially if you are also taking other supplements. This medication is a DHT II (dihydrotestosterone II) blocker and decreases the influence of DHT II on male pattern baldness. Research has indicated that about 85% of men who take this medication consistently, will experience significant reduction in hair loss and even re-growth of miniaturized hair.

There have been no reports of negative drug interactions. Reported side effects are limited to fewer than 2% of patients which include a decrease in libido and occasional erectile dysfunction. If a patient has these side effects we usually suggest taking half the dose (1/2 mg/daily or 1mg every other day).

Minoxidil (Rogaine®)

This over-the-counter medication is applied topically. Minoxidil has been on the market for a long time and has no reported drug interactions. Research has indicated that approximately 50% of men, who apply this medication consistently, will experience some reduction in hair loss and possible re-growth of miniaturized hairs. The brand name *Rogaine®* and the minoxidil generic foam increase the efficiency of delivering the active ingredients and it is much easier to use than the liquid as it dries quickly. The packaging instructs the user to apply the foam only to the crown and to do so twice a day. We have found that once daily is usually sufficient with the Rogaine®/minoxidil foam and should be applied to any areas that are thinning, not just the crown. In rare cases minor skin irritation, heart palpitations, light headedness, and dizziness has been reported.

The cost of Rogaine®/minoxidil varies from store to store, but we have found that Costco or Sam's Club has the best pricing that typically runs about \$40-\$50 for a 6-pack that should last you up to 10 months. If you choose to use the liquid version, be aware that it will require you to apply the liquid twice a day on a consistent basis for it to be as effective as the foam version once a day, thereby negating any savings.

2% Nizoral® Shampoo

Available only by prescription for men and is topically applied. This product was originally developed as a treatment for dandruff. During the clinical trials they found that about 40% of men who used the product on a daily basis experienced some re-growth of hair. It is thought that this shampoo works as an androgen (male hormone) blocker and simply replaces the shampoo you might currently be using. Lather up with a small amount, typically a drop the size of a half dollar is sufficient, and rub it in and leave it in contact with your scalp for 5 minutes. Then rinse the shampoo and finish your shower as usual. You can use conditioners or styling products as you have before, they key is the 5 minutes of contact with your scalp. As with any new product that comes in contact with your skin, on rare occasions some minor skin irritation has been reported. No drug interactions have been reported for Nizoral®.

You can either fill the prescription at a local pharmacy and it's usually covered by insurance because it's a dandruff treatment not a hair growth medication (if you have to pay out of pocket it will cost about \$50 for a 4-6 week supply) or go online and buy it from a Canadian pharmacy (for example www.canadapharmacy.com) for about \$15/bottle.

NOTE: Prescriptions for either form of finasteride and *Nizoral*® are typically written for a 12 month period and can be filled at most pharmacies. In the case where a prescription runs out, you will need to contact the office for another prescription.

Other Shampoos

Revivogen® is a product that combines many of the DHT blockers found in nature into one scalp therapy system. It is applied topically to the scalp at bedtime and helps to reduce the levels of DHT in the areas to which it is applied. It costs about \$1 per day and is available through our office.

There has been some recent evidence that shampoo products that contain caffeine may also help hair thicken by creating larger follicles. Products such as *Nioxin Diamax*, *Hair Surge* and the *Viviscal* Shampoo, Conditioner and Scalp Serum contains caffeine and other active ingredients that will stimulate hair growth and are udeful, especially if your hair is thinning due to do something besides DHT II. These shampoos, conditioners, other styling products and concealment products are available through our office as well.

Natural Treatments

There are a several "natural" treatments for hairs loss but their effectiveness is not well studied. *Saw palmetto* is one option and some and has been used for prostate enlargement issues. Because DHT 2is

thought to be one of the primary causes of prostate enlargement it was theorized that saw palmetto is a DHT 2 blocker. The dosage used is typically 160-200mg twice a day.

A second option, with limited testing, is *pumpkin seed* oil which has been shown to block the formation of DHT. The dose would be 200mg twice a day. There are some reported side effects of gastrointestinal issues and body itching with these treatments.

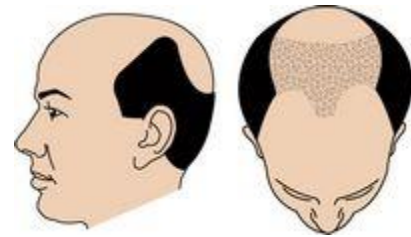
Dietary Supplements

There are no studies to support the use of any dietary supplements to promote hair growth; however, there are some anecdotal observations that suggest there are some product that do help. One such product is the Viviscal Professional supplements we offer in the office. The ingredients in this supplement are designed to support hair health. We suggest you begin using this product two weeks prior to surgery and then continue its use.

SURGICAL TREATMENT

(ROBOTIC AND NON-ROBOTIC)

The surgical procedure transplants follicles from the **Donor Area**, or “permanent” area, which is on the back and sides of the head (the solid black area in the diagram to the right). These follicles are not sensitive to the hormones that cause hair loss, and so can be transplanted from their location on the back and sides of the head to the areas of need anywhere on the scalp. They will then grow in their new location as if they were still on the back of the head. It’s like when you take a pine tree and put it into a maple tree forest, it remains a pine tree and retains all the characteristics of a pine tree. Same goes for permanent hair. It can be moved to the area of scalp where the sensitive hairs have perhaps long gone, and they will grow robustly as though still in the Donor Area.



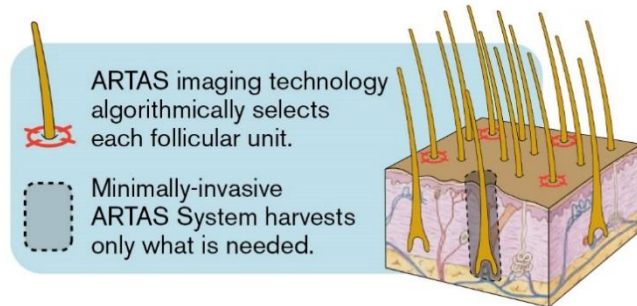
I do not delegate the surgery portion of the procedure to technicians, assistants, a physician assistant (e.g.: PA), or another physician. I truly enjoy performing surgery; to me it is like creating a masterpiece illustration and is creatively satisfying to perform hair restoration surgery. I consider it a privilege, not a duty nor a burden, to perform a surgical operation on a patient. Whether robotic or non-robotic, I will personally be the one performing your hair restoration surgery procedure.

The cost of a hair restoration procedure usually falls between \$5,000 and \$15,000, depending on the amount of hair loss, the method selected, previous procedures, and other factors. With either method, about 25% of the follicles transplanted will simply continue to grow in their new location. About 75% of the follicles will shed their hairs, which will return in about 3-4 months. At this time you will start to see

results, with results and hair density improving until 8 to 12 months following a procedure. We are always available for 'graft-check' appointments as your new hair grows in.

THE ARTAS ROBOTIC HAIR RESTORATION SYSTEM

The ARTAS Robotic System is a state-of-the-art surgical robot that I use to perform efficient, precise follicular unit extraction (FUE) procedures with unparalleled accuracy. This method of hair restoration allows me to remove the hair for transplantation from the donor area without using a scalpel, or creating any linear scarring, a telltale sign that a traditional linear strip type of hair restoration procedure has been performed. It allows very short hairstyles, which is a well-known limitation of the traditional procedures. The recovery time is shortened, with less discomfort and slightly less physical restrictions than those following a traditional linear strip procedure.



Using complex software algorithms, and custom, stereoscopic surgical cameras, the ARTAS System's image-guided robotics harvests follicular units for transplant with micron-level precision. Each follicle is selectively harvested with minimal trauma to the surrounding skin to maintain the look of your donor area.



With either method, the recipient sites for your new hair are made by me, as this determines the direction, angle, and location of each new hair. I create these in your areas of loss, carefully making each site individually to create as natural pattern as possible, following the angles of your own hair, and creating permanent, natural hairlines. The follicles are gently implanted into the recipient sites individually.

You can return to work a few days after the procedure, and keep an active lifestyle without worrying about if anyone will notice. There are no sutures, stitches, or staples to remove. The tiny openings created with the FUE hair restoration procedure heal quickly.

ABOUT FOLLICULAR UNIT EXTRACTION (FUE) PROCEDURES

Let's have a look at the FUE procedure in some photographs of patients on whom I have operated in a bit more detail. This picture below shows what a person's head looks like after an extraction of about 2,000 grafts. This was taken the day after the procedure. Note the shaved scalp, and the red dots throughout the donor area. The red dots indicate where a follicle was taken from.



This next picture, below, shows the same person 10 days later, on post-operative day 11. Note that the new hair growth over 10 days has camouflaged all of the donor sites from the FUE procedure.



This next picture, below, is to demonstrate the scarring that occurs with an FUE procedure. Of course, every time any surgeon incises the skin, a scar is created. Since the hair follicles extend just under the skin, there is literally no way to obtain the follicles from the donor area without incising the skin, and therefore creating a scar. FUE procedures are about managing the scar(s). Instead of creating one linear scar to obtain the grafts, tiny round scars on the scalp are created throughout the donor area, but are only visible when a very, *very* close inspection in between the hairs is performed. Look in between the hairs in the magnified photograph below, taken of a patient's donor area several months following an FUE procedure, and you will see little white dots on this person's scalp...these represent the scars left behind by *every* FUE procedure, with any device. This photograph is of a section of scalp less than an inch wide.



LINEAR EXCISION HAIR RESTORATION

With this method, instead of using the ARTAS robot to obtain the follicles from your donor area, after local anesthesia so your scalp is 100% numbed, I remove a thin strip of follicles which are then separated from each other using dissection microscopes. This is done using facial plastic surgical techniques, and I close the area with the same stitch material and surgical technique I did when performing face lifts prior to 2003. The stitches are tiny, and when completed, the stitched area looks like a zipper. I have personally performed nearly 2,500 linear excision hair restoration procedure since 2003, and I will be the one to personally perform your linear excision hair restoration should you choose this method.

Following the procedure you can return to work in about 4-6 days depending on your level of comfort, the same amount of time required off of work with an FUE procedure. There is slightly more discomfort with a linear procedure. After a procedure of either method, there is typically zero discomfort where the follicles were placed. With the FUE procedure, it can feel a bit like a sunburn as the tiny wounds heal. With a linear excision procedure, where the stitches are feels like a bruise for a few days.

The level of "invasiveness" is the exact same with both procedure - just skin deep, no deeper.

A word about scars from a linear excision procedure: Many people believe the scars are very large and noticeable. I pride myself on creating very thin linear scars, and perform each procedure with plastic surgical precision, and close each of my linear excisions with a trichophytic closure which forces hair to grow through the scar, thereby decreasing the visibility even further.

Let's have a look at a sample scar from a linear procedure that I performed in 2012. The patient on the right has a linear scar going through the hairs under my thumb. Due to the way human hair grows out of the scalp, the hair falls over the scar like a waterfall does over the rocks: perpendicular to the direction of the scar. The picture at the top of the next page shows the same picture with arrows to point out the scar. Can you see it?



This is the same picture as above, with blue arrows showing where the scar is underneath a few strands of hair. It's hard to see, but it's there.



Here I have separated the hair so you are looking **directly at the scar**. This is representative of the work I do. Some scars are even smaller and some slightly larger. This depends mainly on the thickness of the skin on your scalp, which we will discuss at your consultation. It is my personal and professional responsibility to ensure that you do not have a new problem where you currently have none. The scar on your scalp should not impact your life in any way. I work very hard to ensure the scar is not able to be felt when running one's hands through your hair, and won't be visible when coming out of the shower or if it gets windy.



As an aside about scars, and the internet: One can find many pictures of large, unacceptable, nearly disfiguring hair restoration scars. Due to the fact that there is literally no surgery training program or board certificate requirements for a physician of any or no training to call themselves a “hair restoration surgeon,” there are *very* large differences in the way this service is delivered, the surgical procedure is performed, the scars that are left behind, the patient’s experience before, during, and after the procedure, the follow-up attention and care, and how natural the final results look. A dedicated, ethical, and expert hair restoration surgeon is expertly skilled in both methods of surgical hair restoration.

I am personally a big believer in “Peace of Mind.” It cannot be purchased, and once it’s gone, it’s gone. My staff and I work very hard to be sure you are well-informed and prepared for your big day. I only perform one surgery each day, so your day will be a special one.

Please print this packet, and see the last page for a sheet for your questions. There is no other way to obtain peace-of-mind for your hair restoration procedure than having all of your questions answered. This is what we will accomplish during your consultation appointment: answer your questions about hair loss; non-surgical therapies to slow down, halt, and in some cases reverse hair loss; and surgical hair restoration. I look forward to seeing you for your consultation. Please plan to arrive 15 minutes ahead of time to complete new patient paperwork if you are unable to complete the attached New Patient form.

FINASTERIDE INFORMATIONAL FACT SHEET

In consideration of beginning treatment with the drug Finasteride for hair loss, or for continuing maintenance therapy with Finasteride, the following information will help to formulate your decision. The benefits of taking Finasteride will not be covered below, but are available through other sources. Keep in mind that Finasteride will help maintain your hair, but over a long period of time, further hair loss may still occur. In 1992, Finasteride was approved by the FDA to treat prostate gland enlargement, and approved by the FDA to treat male hair loss in 1997. Finasteride is in the class of drugs called 5 alpha reductase inhibitors, which prevent the conversion of testosterone to dihydrotestosterone type II(DHT2). In men DHT2 promotes genetic hair loss and benign enlargement of the prostate, which generally begins after the age of 50.

THE PSA BLOOD TEST

Finasteride can affect a PSA blood test, a screening test for prostate cancer. Because it shrinks a man's prostate gland, it will lower the PSA level by about 50%. Whenever you have a PSA test performed, always advise your doctor you are taking Finasteride.

PROSTATE CANCER

There have been many reports associating Finasteride with prostate cancer. Data was gathered from a 7-year study involving >18,000 men which showed a slightly higher incidence of prostate cancer in the Finasteride group compared to the placebo group - 1.8% (Finasteride) vs. 1.1% (Placebo). This data is very difficult to analyze because on one hand it showed a reduction of early prostate cancers, and on the other hand it showed a slight increase of greater developed prostate cancers. Many urologists feel this was the result of an increased sensitivity of the prostate biopsy test to finding the more aggressive tumors, because the Finasteride prostates being tested were smaller in size. Regardless if you are on Finasteride, all men over 50 should have a yearly rectal exam for prostate cancer screening.

BREAST CANCER

Very rare cases of male breast cancer have been reported in men using Finasteride. The relationship between long term use of Finasteride and male breast cancer is currently unsubstantiated. Because of the rarity of male breast cancer, we recommend routine self-breast exams in men to check for lumps, bumps, pain or nipple discharge.

SEXUAL ADVERSE EVENTS

There is much clinical data derived from various studies that consistently demonstrates Finasteride tablets 1mg will have about a 2% incidence of sexual adverse events, such as decreased libido, difficulty in achieving an erection, and a decrease in the amount of semen produced. In these studies the side effects stopped not only in men who discontinued Finasteride, but also in most who continued taking the drug. Since the initial studies began, there have been reports of erectile dysfunction that continued after stopping the drug. The validity of these reports and the medical explanations for this are not known.

RARE SIDE EFFECTS

Breast tenderness and enlargement, Depression, Allergic reactions, Testicular pain

DONATING BLOOD

Patients on Finasteride should not donate blood because the blood can then be potentially given to females in pregnancy. No females of child bearing age should ever handle Finasteride tablet

