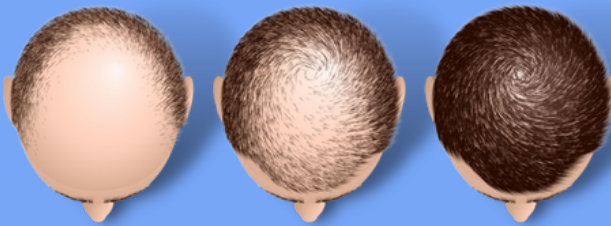


Getting Back to Natural

The untold truth behind hair loss and hair transplantation

- ✓ Androgenic Alopecia
- ✓ COVID Hair Loss
- ✓ Finasteride & Minoxidil
- ✓ DHI and Sapphire FUE
- ✓ Hair Transplant Failures
- ✓ PRP, Mesotherapy, Laser T.



Ass. Prof. Kubra Kızıltaç
Dermatologist Utkan Kızıltaç

"Enlightening from beginning to end..."
- Cagdas Yelen, US

"... honestly, the best resource for hair loss."
- Hasan Keskinel, CY

"Reassuring and extremely informative."
- Resat Gurpinar, TR



A Success Story

"I was in my early 20s when I first noticed my hair loss.

At the time, I was working my tail off starting my own business, working late nights and early mornings. The exact time I noticed my hair thinning is unclear, but I remember waking up every day and seeing a bunch of hair on my pillows, in the drain after the shower, and then on the comb. **What a sight to start a long day, right?**

You see, I was a hair guy; my hair was a big part of my charisma (at least that's how I perceived myself.) **I was ashamed of losing hair and started feeling insecure.**

I started seeing doctors about it once my hairline had significantly receded. I applied a dozen topical treatments over the years, even used finasteride for almost a year. There were results, **they didn't solve the whole problem**, but they were there as long as I used the treatments regularly.

Once I stopped using the topical treatments after seeing some improvements, it continued to fall out.

It was a highly stressful period for me, affecting my daily life. I was ready to do anything to get my hair back for a **"permanent" solution.**

That's where I came across Dr. Utkan. **He assured me that hair loss was, in fact, reversible**, and with the right treatment and lifestyle choices, I could get my head to look like it used to before all this.

We talked about my family's hair loss history, medical background, and lifestyle choices. He pointed right at the exact reasons for my hair loss and advised me on how I could stop losing hair and what I should avoid. He said I needed hair transplantation if I wanted my hairline back.

I had my doubts and fears; I asked dozens of questions to Dr. Utkan about every possible outcome. And he answered all of them reassuringly. I went through with a hair transplant surgery and stuck with Dr. Utkan's advice.

Results?



I am now once again the hair guy!

I don't feel old when I look at my hair every morning anymore; I don't feel bad going outside without a cap.

There isn't a magical treatment for hair loss that will make you all sexy all of a sudden; believe me, I searched the whole Google. But Dr. Utkan and his team are experts on this, and everyone who experiences the same stuff should first benefit from their knowledge, then their treatments."

Hasan Keskinel, CY, 28



About the Authors

Utkan Kızıltac, Chief Dermatologist at UnitedCare

Dr. Utkan Kızıltac graduated from Istanbul Marmara University, Faculty of Medicine, in 2012. He has worked in the Dermatology and Venereology departments of numerous hospitals.

As a result of the Turkish Healthcare System (85 million people quickly accessing healthcare services and 1.7 million tourists coming for health tourism), he treated more than 50.000 patients in his career. Consequently, he has had a chance to conduct numerous researches about skin diseases and hair loss and published/contributed to many articles.



[You can find more about Dr. Utkan here.](#)

Kubra Kızıltac, Assistant Professor at Istinye University

Dr. Kubra Kızıltac graduated from Cerrahpasa Medical School in 2013. She has worked in the Dermatology and Venereology departments of numerous hospitals ever since.



From the Middle East to the West, she has worked in many cities with a variety of cultures and confronted a huge number of cases. Therefore, she has had a chance to conduct numerous researches and

contributed/published more than 45 articles. Consequently, she has become a professor candidate at an early age.

[You can find more about Dr. Kubra here.](#)

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**LIFE IS
TOO SHORT
TO HAVE
BORING HAIR.**

Chapter 0

Introduction

By the age of 35, approximately 40% of all men suffer from visible hair loss, while by the age of 60, this percentage jumps to 65%.

Aside from the visible thin hair and/or balding, hair loss has profound psychological effects: it can lead to depression, anxiety, and social phobia.

And if you're reading this ebook, it means that you've been suffering from some kind of hair loss and experiencing the adverse effects of it in your daily life. Chances are, it's not going to get better by itself, and you need to take some sort of action to get back to natural; whether it is a lifestyle change, a supplementary medicine, or some sort of medical treatment.

We're Utkan and Kubra Kiziltac, a dermatologist duo that has treated over 100,000 patients in our 19 years of combined experience. Dr. Utkan is currently the Chief Physician of UnitedCare, a dermatology clinic in Istanbul that treats hair and skin disorders to restore your natural look.

Dr. Kubra, in addition to being a dermatologist in UnitedCare, is an Assistant Professor at Istinye University in Istanbul.

Why we've written this ebook

Because there is a ton of false information about hair loss and hair loss treatments wandering around the internet, while some of them even suggest actions that would inflict irreversible harm to your body.



We're dermatologists, which means we're medical experts on diagnosing and treating skin, nail, and hair disorders. As we've said before, we've treated over 100,000 patients in our medical careers, and the false information or myths our patients have told us, that we had to correct during the treatments were sometimes even worse than what's on the internet.

If you're suffering from hair loss, you need to know the truth. What's happening to your body, how you can stop it, how can you get your hair back, and what can go wrong.

And that's why we wrote this ebook, to **tell you the truth as experts.**

You'll find all the information you need in this ebook.

We're not going to go ahead and say that you're going to get every single hair that you've lost back at the end of this ebook. But we assure you that you will know the reasons for your hair loss, have an understanding of what type of hair loss you're suffering, and your options to get your hair back.

The information you'll access through this ebook is based on years of experience, a tower of related scientific studies, articles, books, and dozens of conferences attended.

We won't hold back and tell you every unhealthy practice we've seen in some "VIP" clinics, how your hair restoration process can go wrong, and how you can ensure that you **end up getting back your natural look**.

We're mostly going to talk about male balding patterns and discuss the possible treatments of androgenetic alopecia because it is the most common type of hair loss patients experience. But most of the advice will apply to everyone, regardless of their condition.

However, if you feel like your situation is much different than what we're talking about, you can always reach out to us for a free consultation. We can help you understand the reasons and the possible treatment of your condition.



Interesting facts you need to know about hair

- A strand of hair is stronger than a copper wire with the same diameter.
- A single healthy hair has a lifespan of 3-7 years.
- You've heard this before for sure, but an average person loses around 100 hair strands every day, which is considered normal.
- 50% of scalp hair is typically lost before diffuse hair thinning becomes noticeable to the patient.
- Predisposition to Androgenetic Alopecia (AGA) predominantly depends on genetics.
- Family analyses show a significantly increased risk for AGA in men with a bald father, while the risk is significantly decreased in men with a non-balding father.
- However, the risk of developing AGA also increases with a positive family history on the side of the mother or of the maternal grandfather.
- Interestingly, they reported that men with the vertex pattern (AGA) had fewer female sex partners.

Chapter 1

Are you really losing hair?

When was the first time you've noticed that you might be losing hair?

For a recent patient of mine, it was right after a shower one day. He looked in the mirror and through his slightly wet hair, he noticed a visible thinning.

He said to me:

"The first time I've noticed it, I spent almost an hour looking at myself in the mirror, changing the lighting to see if the light was playing a trick on me, then taking photos from different angles to inspect it, and even walking up to my wife and straight asking 'Am I balding?'."

"My mood instantly switched, I was upset, worried, scared that I would go bald. I'm not obsessed with my looks, but I always liked my hair and how it looked naturally; losing it was something irreversible."

Another patient of mine noticed it in a group selfie, a friend told another one that he might be balding. How you notice your hair loss can vary, but almost all of my patients said to me that they'd spent the hours; even the days following this realization were full of worrying, and they couldn't snap out of the bad mood they were in.

Even though they accepted it and moved on after a while, they still would feel bad when they saw their hair in photos and mirrors.

You go years with a full head of hair, trying out different hairstyles and being confident in how it looks, **and suddenly losing it can permanently harm your perception of your body.**

Why does hair loss need to be treated?

Aside from genetics, hair loss can indicate health or lifestyle issues that need to be changed.

You might have an underlying disease that causes hair loss that needs to be treated.

You might be using medicine or a supplementary product that causes hair loss as a side effect which you might need to stop using or look for an alternative.

Or hair loss might be the result of a habit you've had for years that you need to address.

So, understanding the reason behind your hair loss is the first step that every person with thinning or balding hair must address. No exceptions.

However, once you've understood the reason behind it, stopping hair loss or restoring your lost hair is optional. Hair loss alone will not cause you any physical health issues, so it's not "vital" to treat it.

However, mental and social setbacks that will follow thinning hair make hair loss a must-treat for most patients. A recent study concluded that **"the experience of hair loss in men is psychologically damaging, causing intense emotional suffering, and often leading to personal, social, and work-related problems."**

Over 70% of people agree that hair is an important part of the image, while 43% worried that hair loss might result in a loss of personal attractiveness and 42% were afraid of becoming bald. Also, some were concerned about getting older (37%), adverse effects of hair loss on social life (22%), and experienced some sort of depression (21%).

As I've said above, hair loss can permanently damage your self-image, resulting in low self-esteem and emotional suffering. Getting back to your natural looks and regaining the lost hair can improve your mental health and contribute to a feeling of confidence and happiness.

Self-diagnosis is key

When it comes to treating hair loss, self-diagnosis is the first step.

You might be experiencing some hair loss at the moment, with a visible thinning in your hair. But that's not usually enough to diagnose yourself as someone who's balding. Almost everyone experiences some sort of hair loss as they age, so you won't possibly have the same hairline in your 30s as you did in your 20s. However, if your thinning is becoming more and more visible recently and progressing a significant amount in a short period of time, it might be time to move to the next step.

Also, I'll provide you with some images of balding patterns in men in the following sections, especially in androgenetic alopecia, so you can understand what type of balding you're experiencing.

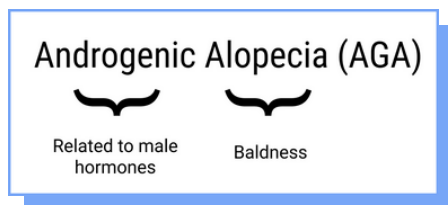
Speaking of androgenetic alopecia:

What is androgenetic alopecia?

The most common form of hair loss in both men and women is androgenetic alopecia (AGA). The condition is also referred to as "male-pattern baldness" for men. It is a hereditary androgen-dependent disorder with a multifactorial etiology.

For male patients, AGA determines a progressive frontotemporal recession and a vertex loss, while in women, the frontal hairline is preserved, and hair loss involves more or less uniformly the frontal region, posteriorly to the hairline. You'll understand more clearly in the images next page.

It's also possible to encounter a female pattern in males and vice versa.



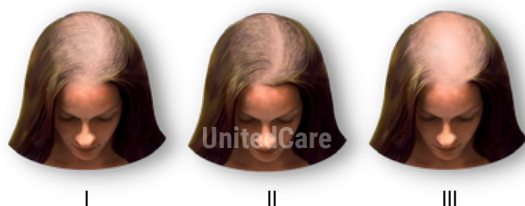
Male Balding Patterns

The Norwood scale (or Hamilton-Norwood scale) is the leading classification system used to measure the extent of male pattern baldness.

Now, let's see 7 grades of male AGA based on the Hamilton-Norwood scale, to help you self-diagnose more effectively.



In female patients, the Ludwig Scale, which distinguishes 3 stages, or the Sinclair (5 stages) or Savin scales (6 stages) can be used:



Hopefully, you could use these images to perceive what pattern and degree of severity your situation falls in.

Chapter 1 Summary

- Hair loss might be signaling an unhealthy lifestyle of an underlying disease. So even if losing hair doesn't concern you, you need to address your hair loss to understand the reasons behind it.
- Balding has a significant impact on your mental health and social life. Studies prove that hair loss causes psychological damage by hurting the patients' self-images.
- The most common form of hair loss is androgenetic alopecia, which I'll refer to throughout this ebook as AGA.
- When it comes to treating hair loss, self-diagnosis is the first step.

Not sure how you're losing hair?

Let us have a look:

GET A FREE CONSULTATION

Chapter 2

Why are you losing hair?

To heal from an illness, you need to approach it from multiple angles at once: the reasons behind it, the treatment, and the changes you'll make to your life to prevent that illness from happening again.

This is called a **holistic approach**, the same approach for treating any skin or hair-related condition.

In most cases, this approach is not used for hair loss. The majority of the people don't learn the reason behind their condition or how they will have to change their life to avoid it; they look for a quick solution if possible. And most clinics exploit this situation to treat their patients for short-term results.

I've seen numerous patients who've kept losing hair a while after clinical treatment, or I had to work with patients that were harmed with failed treatments. This happens because:

1. It's way easier and profitable for clinics to just sell a treatment that worked for a number of patients without taking a look at the whole picture,
2. Most physicians don't care about the aftermath of the treatment and don't approach hair loss in a holistic way. Therefore, patients end up with insufficient knowledge about their condition.

So, I want to help you comprehend the exact reasons behind your hair loss, whether it's something you can avoid or not. This way, you can also see if you'll need further treatment or not.

Without further ado, here are the most common reasons behind hair loss:

Genetic background

You are way more likely to experience hair loss if you have a history of hair loss in your family, either on the maternal or paternal side.

A common idea suggests that if your paternal grandfather is bald, you're going bald. If not, you're safe.

Although this can be considered a variable, there's more to a genetic background in terms of hair loss, much more. Researchers have found over many years and across different studies that over 280 genes play a role in hair loss, but you don't need to look at each one to know if genetics causes hair loss for you.

To keep it simple, the history of hair loss among relatives from maternal and paternal sides should be asked to know if your hair loss comes from a genetic background. If there's a pattern, hair loss can be connected to your genetics.

"If you look at identical twins — who share 100 percent of their genes — typically, they have a very similar pattern of hair loss."

Markus Nöthen, a geneticist at the University of Bonn



Twins Hair Loss Patterns

Androgen sensitivity

This one requires a bit of explanation, so bear with me:

Androgens are a group of hormones present in both men and women and play a role in male traits and reproductive activity, such as testosterone and dihydrotestosterone (DHT).

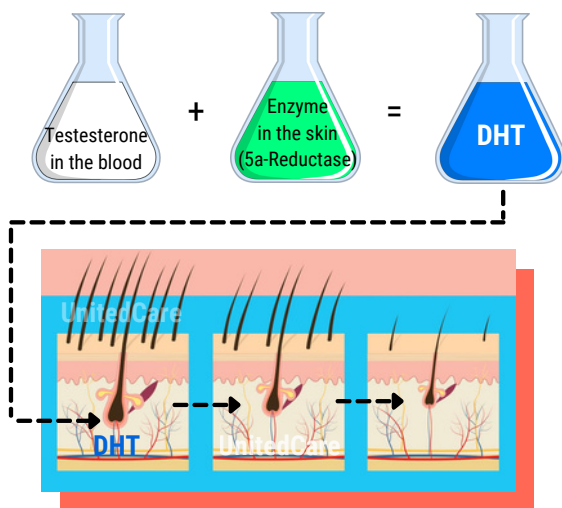
Around puberty, androgens stimulate axillary and pubic hair in both sexes. However, later, high amounts of androgens cause hair loss.

In simplest terms, **high levels of androgens, especially DHT, cause your androgen-sensitive hair follicles to shrink and shorten the hair growth cycle**. This ends up with you having thinner new hair that falls out faster.

In addition to the number of androgens, the sensitivity of your hair follicles to androgens, which is determined by your genetics, plays a huge role in hair loss.

Generally, hair follicles on the side and back of the head are **inherently more DHT resistant** since they have fewer **ARs (Androgen Receptors)**. When transplanted to a recipient area, they keep their DHT resistance which makes the hair transplant surgery results permanent.

While research proves that male AGA is experienced mostly when there's a high level of DHT and Androgen Sensitivity together, only one-third of women with AGA show abnormally high androgen levels.



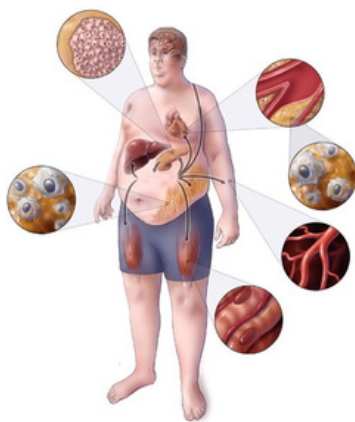
DHT Mechanism

Metabolic syndrome and insulin resistance

Metabolic syndrome (MetS) refers to metabolic abnormalities that include hypertension, central obesity, and atherogenic dyslipidemia. It is strongly associated with the risk of developing diabetes and heart diseases. On the other hand, insulin resistance refers to high plasma insulin levels in the blood and can also be considered an abnormality in MetS.

Those who have metabolic syndrome and insulin resistance are **more likely to experience hair loss** than those who don't since the three conditions are tied together, as studies suggest.

According to the NCEP ATP III definition, metabolic syndrome is present if three or more of the following five criteria are met:



- ✓ A waist larger than 101cm (40 inch) for men or 89cm (35 inch) for women
- ✓ Fasting blood sugar over 100 mg/dl
- ✓ Fasting triglycerides over 150 mg/dl
- ✓ Blood pressure over 130/85 mmHg
- ✓ Fasting HDL cholesterol less than 40 mg/dl for men or 50 mg/dl for women

Medications

Various medications can result in hair loss, especially AGA.

Antidepressants, antithyroid agents, chemotherapy drugs, anabolic steroids, and anticoagulants are known to cause AGA in male and female patients.

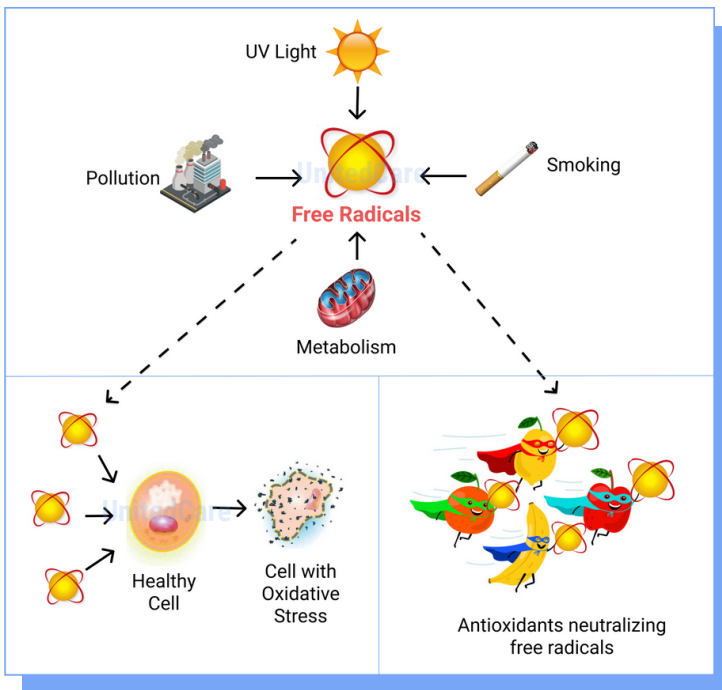
Oxidative Stress

Oxidative stress is the imbalance between the production of free radicals and antioxidants in your body. Your body can't produce enough antioxidants to match free radicals, and the surplus of free radicals damage your cells and DNA.

It can be caused by:

- Excessive exposure to sunlight,
- Pollution,
- Exposure to chemicals,
- Smoking,
- Alcohol consumption,
- Diets high in fat and processed sugar.

Oxidative stress will harm your cells and your DNA, accelerating aging and in the scalp, **damaging hair follicles that produce hair**. A study recently found that oxidative stress plays a huge role in premature hair loss.



Oxidative Stress and Antioxidant Mechanisms

Scalp Conditions – oily scalp

Sebum is an oily, waxy substance secreted by our body. It coats, moisturizes, protects your skin, and **protects/supports your healthy hair**. It is a natural part of our scalp, and thus, everyone's hair gets oily sometimes.

While paying attention to hair hygiene, we should not forget that normal amounts of sebum/oil are good for scalp health. Some shampoos are pretty strong and might clean up all the healthy sebum.

An oily scalp, often caused by genetics, refers to a condition where an excess amount of oil (sebum) is released in your scalp.

And excess amounts of oils can and will trap and attract dirt, dandruff, and product build-up, which clogs pores and prevents new hair growth.

Underlying diseases

Several diseases might be the cause of your hair loss; some of them are:

1- Thyroid Conditions

Thyroid conditions such as Hyperthyroidism can and will cause hair loss and many other adverse effects on your body if they're not treated.

The hair thinning and loss is diffuse (no patching or bald spots) is all over the scalp.

Thyroid conditions can disrupt hormone production processes, especially the T3 and T4 hormones, which help produce hair at the root.

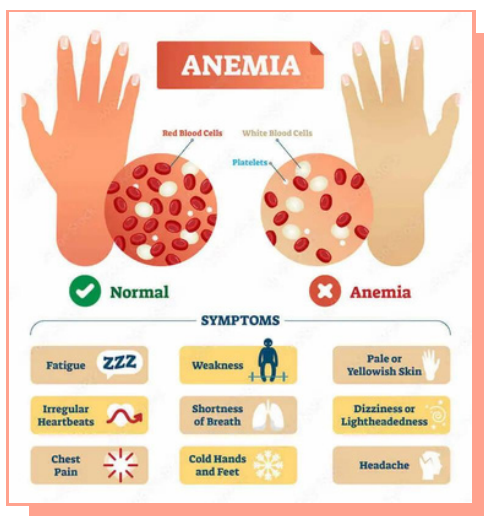
So, a thyroid condition might mean that you're not getting back the hair you've lost.

2- Iron Deficiency Anemia

It is a condition in which the blood doesn't have enough healthy red blood cells. These cells are responsible for carrying oxygen to organs and tissues.

Symptoms:

- Extreme weakness
- Pale or yellowish skin
- Fatigue
- Irregular heartbeats
- Headache
- Cold hands and feet
- Brittle nails
- Poor Appetite
- Shortness of breath
- Chest pain



How does Iron Deficiency Anemia affect hair follicles?

This topic is somewhat controversial.

Iron Deficiency Anemia Definition and Symptoms

Some researchers found out it is causing hair loss, and others say there is no clear and proven relation between them.

A study published in the Journal of Korean Medical Science found that Iron Deficiency is an apparent factor in developing or worsening Female Pattern Hair Loss, especially shortly before menopause.

However, in the same study, it is indicated that:

"Iron Deficiency's role in Male Pattern Hair Loss is hard to conclude."

Bodies of patients who experience a severe iron deficiency may start cutting oxygen to organs and tissues that are not vital.

Could you guess what needs oxygen? Yes, your hair. So, iron deficiency might cause hair loss by stopping the body from providing your scalp with oxygen.

3- Lichen Planopilaris

Lichen Planopilaris is an inflammatory condition that causes scarring hair loss. It destroys the hair follicle and then replaces it with scarring, resulting in permanent hair loss (The hair follicles do not regrow).

The cause of this disease is unknown. It is known that the body's immune system is involved in the process, but the trigger is mysterious.

What are the symptoms of Lichen Planopilaris?

Suppose you feel itchiness, tenderness, pain, and burning in your scalp and start to realize areas of hair loss. In that case, you might be experiencing the disease.

Also, your mouth, skin, genitals, nails may show indications.

A dermatologist can detect white dots without hair follicles on your scalp in a trichoscopic examination.



Lichen Planopilaris ([Source](#))

4- Traction Alopecia

Traction alopecia is hair loss that stems from mechanical damage to hair follicles.

- Repeatedly pulling on your hair,
- Traumatic hairstyling,
- Chemical appliance via styling care or hair coloring products
- Heat appliance via blow dryer or hair straighteners
- Often wearing the hair in a ponytail, bun, or braids might cause tractional alopecia.



Traction Alopecia Type Hair Loss in Women ([Source](#))

Decrease in blood circulation due to the lack of physical exercise

If you're not someone who regularly exercises, you're likely to experience a decrease in blood circulation.

Reduced blood circulation will eventually translate to a decreased scalp blood flow. It will leave your hair **without oxygen and nutrition**, which can cause hair loss or accelerate your existing condition.

In addition, overly stressed people can experience a decrease in blood flow as well.

In this case, the stress hormone cortisol takes over. It puts your body into a "flight or fight mode," which diverts blood away from non-essential parts such as the hair follicles for immediate survival.

Anxiety, Stress

Although anxiety is not directly related to hair loss, stress caused by anxiety and other influences can cause mainly two different types of hair loss:

1. Alopecia areata:

In this type of hair loss, hair on the head falls out in patches.

Commonly caused by stress, alopecia areata is a condition where the immune system attacks scalp hairs, eventually causing hair loss.

About 6.8 million people are affected by Alopecia Areata in the United States.

The patchy hair loss may be sudden or gradual, and there might be itching or burning in the affected area before hairs start to fall.

The condition may result in **total balding** if a dermatologist does not treat it.



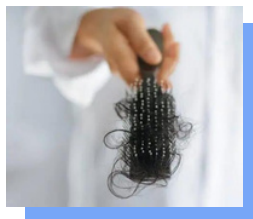
Alopecia Areata

2.Telogen effluvium:

In this condition, the hair follicles that produce hair are pushed to a resting phase from their neutral phase, which can eventually result in them falling out of your body.

In an average person, 85% of the hairs actively grow in the anagen phase and 15% in the resting phase.

Suppose there is a traumatic event or stress. In that case, most hair follicles in the anagen phase might change into the resting phase. Eventually, these hair follicles are pushed out by the new hair coming in 2 months after the shock causing sudden hair loss. It is a temporary hair loss, and falling out is a sign of hair regrowth.



Telogen Effluvium

Lack of sleep

Sleep connects a person's time awake with bodily functions such as hair growth and cell division.

In short, we can say that less sleep means less hair follicle growth. But let's go a bit more into detail:

In "Sleep Loss Alters Waking Activity in Human Epidermal Keratinocytes," published in the January 2014 issue of Journal of Investigative Dermatology, researchers studied how cells behave when deprived of restorative rest.

They discovered that with too little sleep, skin cells numbered fewer and formed inappropriately small connections with one another. Both conditions are hallmarks of alopecia areata, the autoimmune disease that causes hair loss.

Sleeping too little also negatively affected the number of melanocytes in the mice studied, which produce pigment for coloring skin and hair.

Nutrition Deficiencies

Lack of specific nutrition will affect different parts of your body and the physical and chemical processes inside. Mainly mineral and vitamin deficiencies correlate with alopecia.

As I've mentioned before, Iron Deficiency can be a factor that causes your hair loss. But here are a few other nutritions you should look out for, the most important of them being:

- **B12 and Folic acid deficiencies** lead to megaloblastic anemia. Too many immature red blood cells cause excessive hair loss, balding, dandruff, and dryness.
- **Zinc** is essential for insulin production, which is necessary for glucose uptake by muscle cells to produce energy. With a zinc deficiency, you have an increased risk of having dry skin and dandruff. It causes the skin to be more irritated, so it's susceptible to scalp infections like ringworm.
- **Vitamin A** is crucial for the cellular growth of hair follicles. However, consumption of too much Vitamin A may lead to Vitamin A toxicity, according to the research. Thus, under and over supplementing can cause hair loss.
- **Vitamin E** helps the body to protect itself against free radical damage. As we mentioned above, free radicals damage hair cells.

Other than that, nutritional deficiency of

- Niacin,
- Fatty Acids,
- Selenium,
- Vitamin D,
- Biotin,
- Amino acids and Proteins are also known to cause hair loss.

The patient should see a dermatologist for a blood test to detect an exact nutritional deficiency causing visible hair loss.

If there is no dermatologist, a patient may prefer a family physician or general practitioner as a last resort.

Extreme dietary habits or rapid weight loss

Your diet can be a decisive variable in hair loss, as with every health issue.

Overall, balanced and healthy diets will promote hair growth by providing your body with the resources it needs. But if your diet is on the extreme side of the spectrum, you might need to reconsider a few things.

For example, you should steer away from overeating:

1. Egg yolks:

Egg yolks have a high content of sulfur, which is a potent stimulus for the sebaceous glands.

When you overconsume egg yolks, you'll start producing excess sebum.

And if the amount of sebum increases around your scalp, you'll end up having an oily scalp that will cause, as we've mentioned before, less hair growth.

2. Sugar:

Studies have shown that people suffering from hair loss eat foods with high sugar content more frequently, mainly processed sugars.

The loss may be because glucose increases glycoside levels, which can cause toxic effects on cells and interfere with their normal division.

Also, it has been discovered that too much insulin stimulates the process of hair loss. Therefore avoiding consuming too many sugary foods is likely to improve your condition.

Protein powder intake

Some of the protein powders that contain whey isolates are known to contain anabolic steroids, which makes you produce higher levels of dihydrotestosterone (DHT) and may eventually lead to hair loss.

Smoking

Smoking can cause or accelerate hair loss in many ways.

The most obvious way is by **affecting your blood circulation**. Toxic chemicals a cigarette consists of will have a high toll on your blood circulation and reduce the amount of blood that flows into your scalp, leaving hair follicles with less nutrition and oxygen and ending up in them falling out.

And another way it can harm your hair and prevent hair growth is through the **pollution it will produce around you**. The smoke cigarettes produce stays in the environment you smoked in for a long time, and consists of toxic substances. When your hair and scalp are exposed to this pollution, they will be adversely affected by them.

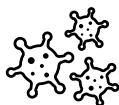
Alcohol consumption

Excessive amounts of alcohol consumption can lead to severe dehydration, not only to your hair and scalp but also throughout your whole body.

This dehydration has a toll on your hair follicles and hair strands and can slow down hair growth while making your hair fall out.



COVID-19 Hair Loss



Hair loss can be observed after a severe illness such as COVID-19. This loss is generally Telogen Effluvium diffuse pattern hair shedding resulting from the early telogen phase entrance.

A recent study reported that ten female patients experienced severe hair loss following laboratory-confirmed SARS-CoV-2 infection. The patients are from different ethnicities with no hereditary hair loss and have a 55 median age.

It is stated that excessive hair shedding began within weeks to months after the COVID-19 infection. Since the patients didn't report any other medical conditions, they were all diagnosed with Telogen Effluvium.

Stressful events, diseases, drugs, nutritional deficiencies, and sudden weight loss can cause Telogen Effluvium. In TE, more hairs than usual enter the telogen phase simultaneously.

The telogen phase of hair follicles is also called the resting phase, and old hair follicles start to fall to make room for new baby hairs.

In general, 84% of scalp hairs are in the anagen, and 16% are in the telogen phase. However, major stress or shock may push up to 50% of hair follicles into the shedding phase.

Furthermore, a Spanish researcher González-Sanguino and colleagues surveyed more than 3000 people. They found that female patients were more likely to be affected by COVID-19 both psychologically and physiologically, showing more significant symptoms of depression and anxiety and related hair loss.

They concluded that women are more likely to seek help for their hair loss condition.



Covid Hair Loss on Women

Chapter 2 Summary

- There are numerous different reasons for losing hair, but most patients experience a level of AGA based on their genetics.
- While genetics play the most significant role in hair loss, multiple underlying conditions may affect or accelerate hair loss in your scalp.
- Understanding the reasons for your hair loss is the first step to treating it.

***Not sure why you're losing hair?
Let's find out together:***

GET A FREE CONSULTATION

Chapter 3

How do you stop balding?

In the previous chapter, we've gone over numerous different reasons for your hair loss. **As long as one of these reasons exist, you'll keep losing hair.**

Although you can't just change your genetics or immediately quit your medications, you can take the majority of these variables out of the equation, eliminating hair loss caused by them.

In addition to removing these variables, in this chapter, I'll suggest a couple of things you can easily change in your daily life that will **stop or significantly reduce** hair loss.

Note that the changes I'll suggest in this chapter **aren't likely to restore lost hair.**

I'll talk about regaining your lost hair in the next chapter.

So without further ado, here's everything you can do to stop balding, that are backed up by studies:

Avoid harmful things which aggravate or trigger AGA

It's important that you understand, your body doesn't intentionally push the hair out of your scalp. Given the right genetics and the right lifestyle choices, it will do everything in its power to stop hair loss.

So, you can and should help your body protect your hair and battle balding.

Although there are a number of things you can do to help your body, there are also a few unhealthy habits you can remove from your daily life; that'll both help your scalp and your overall health.

Stop Smoking

There are dozens of reasons for you to quit smoking. And you're possibly aware of almost all of them unless you haven't been watching TV or using the internet for the last 50 years.

If you're experiencing some sort of hair loss and are a regular smoker, you now have one more reason to quit. As we've previously explained, smoking will adversely affect blood circulation in your body and accelerate hair loss.

If you can, you should quit smoking and avoid passive smoking to help your body battle hair loss, in addition to other benefits.

Reduce alcohol consumption

A frequent drinking habit can cause or accelerate hair loss as it leads to dehydration throughout your body, and therefore, your scalp.

Cutting back on drinking can help you lighten the adverse effects of drinking on your body and your hair.

Also, you can make sure you drink plenty of water before and after alcohol consumption to minimize the adverse effects.

Proper diet

In the 21st century, the eating habits of the average person have dramatically worsened.

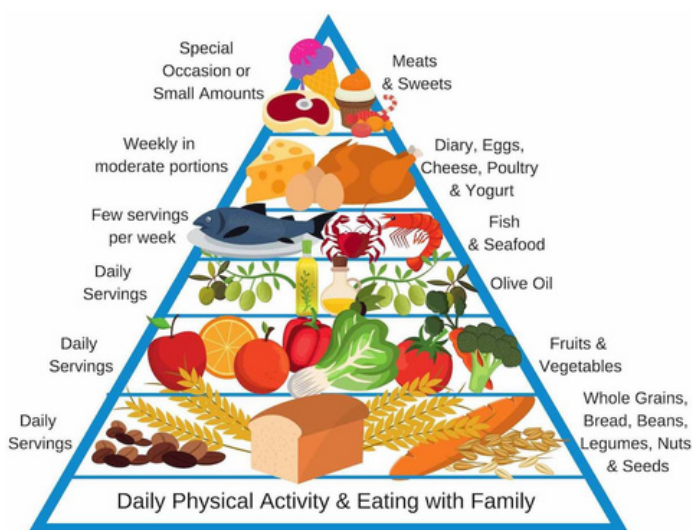
There is a widespread tendency to consume fast food for meals, or just skip some meals altogether. A big percentage of our daily diet consists of carbs and proteins.

Nutrition deficiencies, as we've mentioned before, can have a huge impact on hair growth and accelerate hair loss. A bad eating habit might be a big contributor to your balding.

I'm not asking you to completely change your habits and adapt to a new, healthier lifestyle, although that would be great. Instead, you can ensure you're getting the right amount of nutrients by introducing new items to your diet or replacing some of the existing items with healthier alternatives.

The Mediterranean diet, which consists of raw vegetables and fresh herbs and is rich in phytochemicals, can reduce the risk of AGA, according to a study. **Try to consume raw vegetables and fresh herbs at least 3 times a week**, in the form of salads, for example, to see the results of this diet.

Also, try to increase the number of proteins which are the building blocks of hair.



The Mediterranean Diet

Yoga and Exercise

Yoga and other forms of exercise can help you eliminate a variety of reasons for hair loss, both mentally and physically.

Before suggesting a routine, I'd like to tell you a bit more about the benefits of yoga and exercising around hair loss:

- ***Reduces stress levels***

As we've said in the previous chapter, stress highly contributes to hair loss by causing two common types of hair loss: **alopecia areata** and **telogen effluvium**.

Physical activity of any sort helps your body produce more endorphins and serotonin, which are the feel-good neurotransmitters of your body.

Exercise can also improve your sleep, deprivation of which causes stress, by reducing sleep onset (the time it takes you to fall asleep.)

Also, regular exercise will improve your overall mood by adding to your self-confidence and helping you relax.

- ***Improves circulation***

Low circulation can cause hair loss by depriving your scalp and hair follicles of oxygen and nutrients in the blood.

When you exercise, your heart beats faster, pumping more blood into every bit of your body and flushing blood through your arteries. A long-term habit of exercising, whether light or intense, can help you maintain a good level of cardiovascular activity and improve blood flow to your scalp.

If you're regularly exercising, great! If not, try to get into exercising by starting with something light and something you enjoy. Walking, jogging, playing pickup sports, dancing are a few suggestions you can easily adopt.

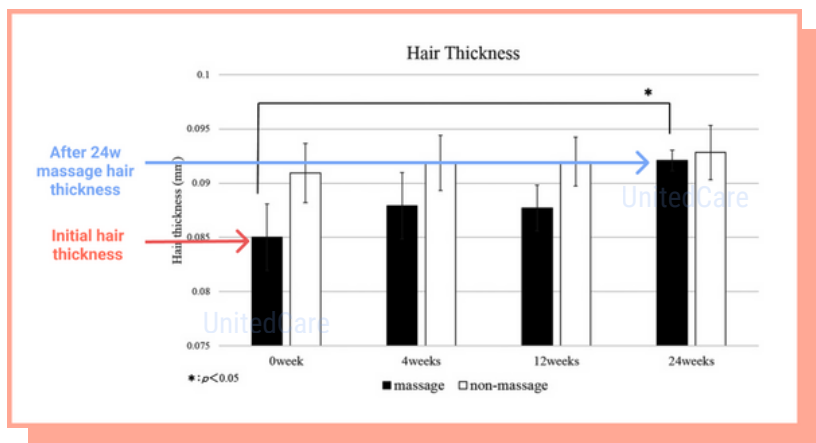
Hair/Scalp Massage

It's always nice to sit back/lay down and enjoy a good massage. If you're experiencing hair loss, you now might have another reason to enjoy regular massages.

A [2016 study](#) has found that regular massages around the scalp lead to thicker hair (results shown in the chart below). This is mainly because the massage will stretch the cells of hair follicles and make them thicker, and thicker hair follicles will produce thicker hair.

Also, regular massages will drastically improve blood circulation throughout your scalp which then will boost hair growth.

You can massage your scalp by **applying light pressure to the skin with your fingertips**, 5-10 minutes would be sufficient. You can massage your scalp when you're relaxed sitting, or lying on the bed, or even in the shower while washing your hair.



24-week Period, Hair Thickness Difference Chart
for Massage and Non-massage Area. [Source](#)

Improving Sleep Quality and Quantity

It is no news that being deprived of enough sleep can have negative impacts on the body.

People who sleep 6 hours or less per night are much more likely to experience hair loss compared with those who sleep for 7-8 hours per night.

This is due to decreased release of human growth hormone (HGH) which plays an important role in maintaining good health and promoting hair growth during sleeping time.

"Sufficient levels of HGH in our bodies are needed not only to maintain normal physiological function but also for optimal physiological processes, including hair production in the follicles."

Treating Your Hair Gently

Traction Alopecia is caused by pulling your hair continuously. It is generally seen in people wearing hair tightly pull back such as a ponytail, bun, and slick backs.

Over time, combined with heat and chemicals included in some styling and care products, pulling the hair may lead to permanent damage in hair follicles.

In addition, your hair is very fragile when it is wet. Thus, brushing the wet hair requires much more attention.

Being aware of these facts, just be gentle with your hair and don't brush or comb your hair hard.

You may learn the correct way of combing or brushing your hair. The type of brush and technique will also have a significant role in protecting hair follicles.

Sun Protection

Your daily routine, your occupation, or your hobbies might end up keeping you under the sun for long periods.

Now everyone knows too much exposure to sunlight can cause sunburns, and in the long-term, it can even cause skin cancer. That's why most people apply sunscreen to their exposed skin to protect it from UV lights.

However, most people tend to ignore their scalp. Since it's covered in hair, they think it's safe from sunlight; but it's not.

Sunlight can actually damage the skin cells in your scalp and cause inflammation, harming your hair follicles and causing them to shrink and fall out.

Steering Away from Chemicals

Metal and non-metal toxins are known to cause alopecia.

These toxins range from dietary supplements, such as selenium, to prescription drugs, such as colchicine that is used to treat gout and Behçet's disease.

Even insecticides have toxic substances such as boric acid, detrimental to hair.

Especially industrial workers are at most risk for heavy-metal toxin (mercury, thallium) exposure. They always wore protective equipment such as respirator masks to reduce the amount absorbed into the body.

It is a fact that chemicals are everywhere in our daily life, from household cleaning supplies to exhaust gases. We need to protect ourselves from their exposure as much as we can.

By being careful not to inhale/consume or apply substances containing toxins, we can prevent hair loss caused by them.

Herbal therapies

“Nature itself is the best physician.”
- Hippocrates

A remedy can't magically stop hair loss or restore your hair. There are dozens of chemical and biological processes that come into play in hair growth.

However, you sure can support these chemical and biological processes with certain herbs, studies suggest.

For example; **saw palmetto, green tea, pumpkin seeds, and licorice** are reported to block 5-alpha reductase enzymes; which are the enzymes that convert testosterone to DHT, the molecule responsible for hair loss and enlargement of the prostate.

Rosemary can be used to improve blood circulation to the scalp.

And **grape seeds** showed proliferation of hair follicle cells and activity in the hair physiological cycle. Also, a study has found that applying grape seed extract on your hair after washing it significantly reduced the damage caused by regular use of hair dryers.

Chapter 3 Summary

- In this chapter, I've explained different methods you can slow down or stop hair loss you're experiencing.
- Those who experience hair loss can improve their symptoms by:
 - Quitting or reducing smoking and alcohol,
 - Eating balanced meals with plenty of raw vegetables and fresh herbs,
 - Starting to exercise regularly,
 - Trying scalp massages,
 - Giving certain herbs that were proven to help a chance.
- Adopting just one of these methods can make a difference based on your lifestyle. However, to see a significant change in your symptoms you must try multiple methods that suit your lifestyle at once.

***Want to stop losing hair?
Let's see what we can do:***

GET A FREE CONSULTATION

Chapter 4

How do you regain lost hair?

Stopping or slowing down hair loss by eliminating the underlying reasons for it is one thing...

... restoring the hair you've lost is another.

Over the last 50 years, new and effective ways of restoring lost hair were discovered with the advancement of medicine. Numerous methods have worked for patients, but which one should you use?

In this chapter, I'll explain the most notable treatments and therapies you can go through in hopes of restoring lost hair.

The different methods of regaining lost hair can be categorized into 3 groups:

1. ***Pharmacological treatments,***
2. ***Physical therapies,***
3. ***Hair transplant surgeries.***

My suggestion, expertise, and the most effective treatment you can receive when you aim to regain lost hair is hair transplantation. And I will talk more about hair transplantation in the next chapter.

But, for the sake of informing you about all the possible treatments, I'll go over the other methods too:

1. Pharmacological Treatments

Pharmacological treatments are treatments based on the use of drugs. Although a doctor's, especially a dermatologist's opinion is strongly recommended before starting these treatments, you would be able to start some of these, especially topical ones, on your own.

These treatments can be divided into two groups: Topical and Systemic treatments:

Topical Treatments

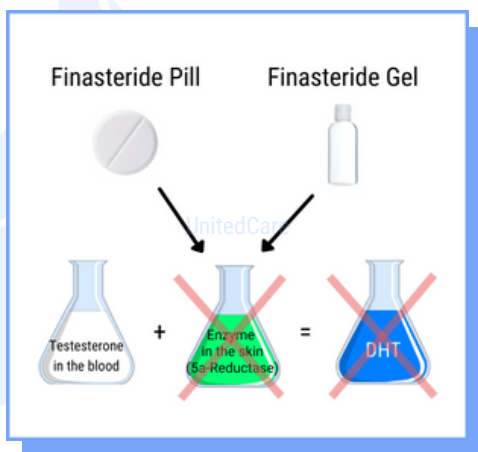
(applied to a particular place on the skin)

- **%5 Minoxidil,**
- **%3 Procapil,**
- **Finasteride,**
- **Prostaglandins,**
- **Melatonin,**
- **Ketoconazole,**
- **Saw Palmetto.**

Systemic Treatments

(drug therapies that work throughout the body)

- **Oral Finasteride,**
- **Oral Dutasteride,**
- **Oral Minoxidil,**
- **Oral Prostaglandins,**
- **Valproic Acid and Saw Palmetto.**



Finasteride Blocking 5α-reductase and therefore DHT Synthesis

Minoxidil/Rogaine

FDA-approved Minoxidil, also known as Rogaine, comes in the form of either a topical liquid that you can apply on your scalp or an oral solution that you can intake **to stimulate hair growth and prevent future hair loss.**

The common misconception about this product is that it will make your hair thicker overnight or something similar.

Well, it won't, so don't get disappointed when you only see subtle results after weeks of regular use.

Minoxidil takes time to work, and usually, people who respond well to it can expect thickening of their existing strands within the first year plus some additional new hairs growth from taking this medication over time.

In a study, **62% of the 984 men** using 5 percent Minoxidil (Rogaine, FDA Approved) for a year reported a reduction in hair loss.

Minoxidil's possible side effects are scalp sensitivity, skin dryness, irritation around the application site, and increased heart rate.

Usually, if you're interested in getting this product from your physician, they will initially prescribe you a foam version since it's easier to apply. But studies have found that oral minoxidil is also as effective, especially for those having trouble with the topical solution.



Topical Minoxidil Before/After, 4 months - 6 nights/week usage ([Source](#))

Finasteride/Propecia

FDA-Approved Finasteride, also known as Propecia, is a popular drug used to treat male pattern baldness. This medication comes in the form of a pill that you can take orally, and it's been reported to work for over **83% of men** who give it a chance.

For this treatment for hair loss to work, you need to take a pill every morning on an empty stomach because it has been found that taking Finasteride with food will significantly reduce its effectiveness.

For this treatment to be effective, you need to take it regularly for at least 3-6 months before seeing any results since hair loss doesn't show up overnight, and neither does your new hair growth.

However, be aware that it might cause side effects such as impotence, decreased sex drive, headache, trouble having an orgasm, and weakness.

2. Physical therapies

Growth Factors Injection

This treatment works in the earlier stages of your balding when most hair follicles haven't been destroyed.

In the first stage, your own blood is used to create growth factors through a harvesting system. Then, these harvested growth factors are injected throughout your scalp area to promote hair growth.

As we've said, this will only work in the early stages of hair loss and will slow down hair loss while promoting hair growth.

Stem Cell Injection

Stem cell injection is a therapy mostly considered by female patients.

Again, your blood is used to create stem cells through a harvesting system. Later, these stem cells are injected into your scalp, where balding happens.

This treatment too slows down hair loss and promotes new hair growth by strengthening your hair follicles and is a preferred method at the early stages of hair loss.

Adipose-Derived From Stem Cells

As the name suggests, Adipose-derived stem cells are derived from adipose tissue, mainly made up of fat.

Once the stem cells are harvested from your adipose tissue, they're then injected into your scalp multiple times over a year to promote hair regeneration naturally. In a Japanese study, 100 patients, men, and women, from different stages of alopecia went through this treatment. They found that this method had no side effects and was somewhat effective in all patients.

The only downside would be the high number of treatments required to achieve a visible improvement.

PRP

You all know that the body has the ability to heal itself, right?

So why don't we harness this ability? Do you think anything better than a 100% natural healer?

In FDA-approved PRP treatment, platelets, a component of blood that aids healing, are obtained from a patient's blood. Then, this plasma is injected into a specific area in the body to accelerate healing.

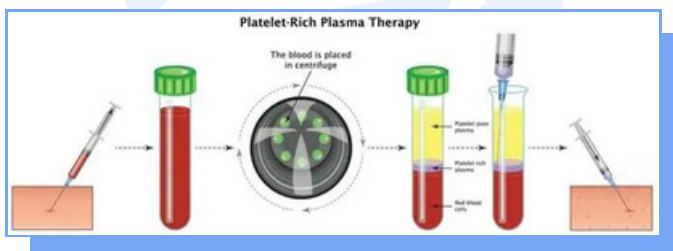
Then, this plasma is injected into your scalp, where hair loss happens.

According to the research, it can stop and reverse the Androgenic Alopecia (male and female pattern baldness).

"A significant reduction in hair loss was observed between first and fourth injection. Hair count increased from an average number of 71 hair follicular units to 93 hair follicular units."

The PRP treatment process is as follows:

1. Blood is drawn from the body.
2. The blood is run through a centrifuge to concentrate the platelets.
3. The separated plasma is taken and injected into the target area.



PRP Stages: Withdrawal, Centrifugation, Injection

The results of PRP treatment are noticeable after several injections. Only an expert dermatologist could plan PRP treatment and follow the improvement.

The great thing is that the side effects of PRP are very limited because the process is autologous, meaning the substances are obtained from the same person.

Mesotherapy

Remember the nutrients we've talked about in the second chapter, the lack of which might be the reason for your hair loss?

In this treatment, a medical specialist injects your scalp with a mix of these nutrients, mainly made up of vitamins, minerals, and other agents related to hair growth.

It aims to combat hair loss by providing your hair follicles with the necessary nutrients and reversing the effects of DHT. However, as popular as mesotherapy is, there isn't much documented evidence regarding its effectiveness.

Microneedling

In micro-needling, a roller with small needles is used on your scalp to create minor injuries.

It is speculated that using this method will help release factors that promote hair growth and regenerate hair follicles. Since it creates openings in your scalp, micro-needling is often followed by a topical treatment such as minoxidil.

However, there are numerous side effects involved and documented results are limited.

Laser Therapy

Laser therapy, also referred to as low-level laser therapy (LLLT), is a process where your scalp is exposed to laser beams, and photons are irradiated into your scalp area.

According to a study, subjects having low-level laser therapy for a 24 week-period exhibited a significant improvement in hair re-growth compared with subjects treated with the fake device (to eliminate placebo factor) for both researchers and subjects' self-assessment.

Baseline and 24th week before and after photos are shown in the picture below:



Application of Low-level Laser Therapy, Benefits, Before and After ([Source](#))

Laser therapy is often safer compared to other hair loss and regeneration treatments. Still, it takes much more time and frequent (up to several sessions a week) sessions to yield results.

Different types of lasers can be used for promoting hair growth:

- **Non-ablative Fractional 1550nm Er:Glass Laser:** “Non-ablative” lasers cause minimal damage to skin tissue, so non-ablative Er glass laser preserves skin surface while generating thermal injuries. It works to a depth of 0.4–2.0 mm.
- **Ablative Fractional 2940 nm Er:YAG Laser:** “Ablative” lasers destroy skin tissue to some extent. Ablative Er:YAG laser is a lesser-known laser for treating hair loss and only has documented results on mice.
- **Ablative Fractional 10600 nm CO2 Laser:** Ablative CO2 laser is a more common laser type used for hair growth. It was shown in a study conducted on 28 male patients with AGA that an Ablative CO2 laser is effective in hair restoration when followed with the topical treatment, minoxidil.

LED Light Therapy

LED (light-emitting diode) lights, especially LED red lights, can also be used on the scalp to promote hair growth. However, they're less potent than lasers and, therefore, less effective.

However, LED light therapy is much more affordable than laser therapies since laser therapies are relatively expensive.

Electrotrichogenesis

In Electrotrichogenesis, hair follicles are stimulated with rhythmic electric pulses from an electrostatic field.

A session of electrotrichogenesis takes around 12 minutes and has to be done every week for 9-weeks on average.

Carboxytherapy

Carboxytherapy is the therapeutic application of CO₂ gas, and for hair restoration, it consists of a direct injection of CO₂ into the scalp area. It is thought to improve circulation and oxygenation of the scalp.

A study conducted on 9 male patients has found carboxytherapy to be only 66% effective, making it a much less effective alternative to the more popular hair loss treatments.

3. Hair Transplant Surgeries

We'll talk about our experiences and views on hair transplantation in the next chapter. However, we wanted to inform you about different types of hair transplantation techniques before concluding this chapter.

There are three main types of hair transplant surgeries, and each has permanent results if done correctly.

Follicular Unit Transplant (FUT)

Also referred to as the follicular unit strip surgery (FUSS), Follicular Unit Transplant is a hair grafting method that extracts a strip of hair from the back of the scalp.

In FUT surgery, hair follicles are extracted by technicians from a strip of tissue that is cut and harvested from the donor area. FUT generally takes less effort and time to operate, so FUE hair transplants cost more than FUE and other modern techniques in most clinics.

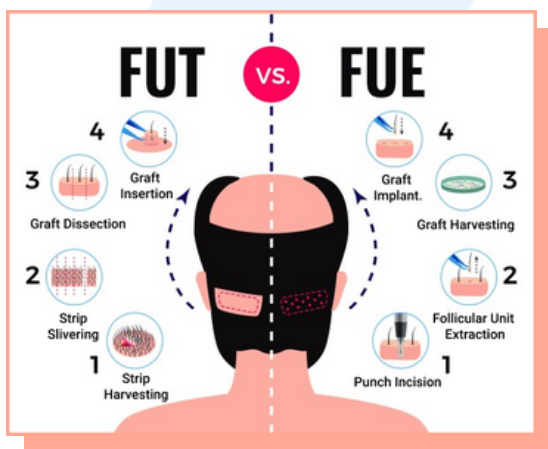
In FUT, each graft on the strip can be dissected under a microscope and has less chance of being harmed. Also, since the line of skin is completely removed (in FUE, homogenous harvesting is done to keep the natural look and density.), all grafts on the skin can be transplanted. **As a result, it results in better graft yields.**

Since the donor area is then stitched or stapled, it often leaves the donor area with scars. It is still used for patients having limited donor area capacity.

Follicular Unit Extraction (FUE)

Follicular Unit Extraction, on the other hand, as the name suggests, is a procedure where hair follicles themselves are extracted with a tiny punch tool **without harming the tissue in the donor area.**

This is a much more detailed and precise procedure, where the scars are minimal, and it requires a high level of expertise by the physician to practice safely and correctly. However, as this is a more detailed process, it has a longer operation time than the FUT method.



FUT vs FUE

Sapphire FUE

Sapphire FUE is done by using sapphire blades made from expensive gemstone. Sapphire blades are known for their sharpness, smoothness, and durability.

Sapphire tip causes fewer wounds in the incision stage (it is used to open micro-channels). Thus, it results in less trauma, swelling, bleeding, pain, and a faster recovery period and increases the likelihood of success.

Smaller and more precise micro-channels produce more natural-looking results. **As experts in hair transplantation, we use these sapphire tips** in FUE operations *since we care about the best results possible.*

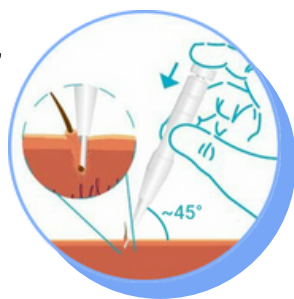
Direct Hair Implantation (DHI FUE)

Differs from FUE in the implantation stage. In this method, Choi Implanter Pen is used to open channels and implant grafts simultaneously.

The operator can easily control the implant's angle, direction, and depth using the special pen.

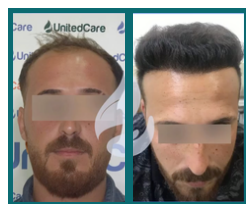
Increased precision makes this technique appealing even if it is more expensive than FUE.

In addition, the DHI technique has a faster recovery period and can be performed with less bleeding compared to the FUE method. However, there are just a few DHI experts.



DHI Steps

Sapphire FUE and DHI Hair Transplant Results



Chapter 4 Summary

- Treatments and therapies that can help you stop hair loss and promote new hair growth can be categorized under 3 groups: Pharmacological treatments, Physical therapies, and Hair Transplant Surgeries.
- Although there are success stories in pharmacological treatments and physical therapies, they're either not widely effective or have certain side effects that you should be aware of. And, you should check in with a dermatologist before starting any treatment.
- Hair transplantation is the most commonly used and the most successful hair restoration technique, and when done by an expert physician, especially a dermatologist, it can yield almost perfect results.

***Do you want to regain your hair?
Let's take a look:***

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Chapter 5

The truth about hair transplantation

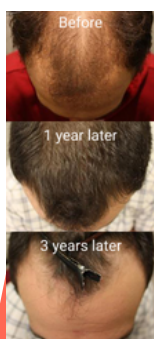
This is important:

Hair transplantation is actual surgery, and it requires an expert surgeon.

I know many patients who had a hard time trusting the idea of hair transplantation itself. That is because, as I've said, hair transplantation is a surgery, a direct solution to pattern hair loss. So, a patient needs to be picky and should question the methods and their physician.

This chapter will share our experience and perspective on hair transplantation as dermatologists with a combined 19 years of experience and over 100,000 treated patients.

*Let's start by imagining the worst; how **can a hair transplant surgery go wrong?***



Long Term HT Failure



Overharvested Donor Area

Hair transplantation can fail, and it does so often

Most suggest the failure rate for hair transplant surgeries is well under 5%.

But this is an average number.

In fact, over my long years of observing all sorts of clinics, methods, and numerous physicians, I can say that the failure rate can go way up for some clinics and **go below 1% for some**. It honestly depends on the expertise and the care they direct into the whole process, starting from understanding the underlying reasons, followed by the surgery, and the communication post-op.

So, let's take a look at the different reasons a hair transplant surgery can fail and what can go wrong:

Failures caused by Wrong Patient Selection

Not everyone that loses hair is eligible for hair transplantation surgeries, yet, some clinics are either unable to determine eligibility or just ignore it to do the operation and get paid.

Here are some situations where the patient isn't eligible to have a hair transplant surgery:

- **The balding area is too large**, requires too many hair follicles,
- **The donor area is too small**, limits the number of hair follicles that can be harvested,
- **Patients with active scarring alopecia**,
- **Younger patients with early, evolving balding** (if the hair loss is not stable, a second hair transplant surgery would be needed soon after the initial surgery.)

Failures caused by the Physician or the Clinic

Suppose you own a business targeting low segment customers. And, you know that new techniques enhance the quality of work by 10-15%, but they also increase the cost by 30-35%. What would you do?

The low-cost clinics cut everything to reduce costs, ignoring patients' ultimate well-being. Next time you think about having a hair transplant think about what is more precious;

- 1000\$?
- Time?
- Health?
- Limited Donor Area?

To reduce the price, It is common for clinics to employ inexperienced physicians with sometimes no medical background to do hair transplant surgeries.

And it is also common for these inexperienced physicians to adopt out-of-date or simply wrong and harmful medical procedures.

After a surgical procedure full of unhealthy practices, it's almost inevitable for you to lose many of the planted grafts and even have an unnatural hairline or visible scars.

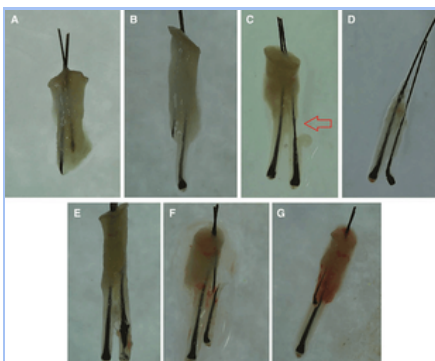
Some failures that the physician and the clinic cause are as follows:

- **No doctor involvement in the surgery:** Technicians conducting the operation without supervision can't deal with complications.
- **Transection rate:** Transection is the amputation of single or multiple hair follicles. Transection rate is % of follicles that are transected during the operation.

The rate depends on the experience of the operator. The least skilled one can have a transection rate between 20-50% meaning almost half of the precious and limited grafts are amputated.

Some clinics use bigger punches to extract grafts to reduce the transection rate without decreasing the surgery speed (speed is essential for "hair mill" clinics), extending the healing period, and leaving scars.

A skilled dermatologist surgeon has a transection rate of 1-2% and transplants most grafts successfully.



The probable hair follicle damages in FUE. A: Total transection., B: Partial transection., C: Paring., D: DP injury., E: Bulb injury., F: Fracture., G: Telogen. ([Source](#))

Appliers that conduct the operation can often be **inexperienced, and their expertise might not be sufficient** for such operations. And clinics can decrease the quality of their service by trying to **cut costs**; imagine having to sit in an unsanitized room with no AC whatsoever for hours...

Some failures that the physician and the clinic cause are as follows:

- **No doctor involvement in the surgery:** Technicians conducting the operation without supervision can't deal with complications.
- **Trying to plant too many grafts:** Which causes trauma on the scalp and increases the chance of inflammation, necrosis, tissue rejection.
- **Inefficient use of tools:** The graft harvesting and plantation process should be done carefully by a well-educated, experienced team with physician supervision. In some clinics, for example, the punching tools used to harvest grafts can be bigger than they're supposed to be to make the process easier for the applier, leaving scars over the donor area and increasing the chance of failure where it's planted.
- **Ignoring the latest technology:** New technologies for hair transplant surgeries are invented every year to increase efficiency and success rate. To cut costs, most clinics ignore these technologies and keep going through the process in outdated methods.
- **Unnatural insertion of the grafts:** Physicians might insert grafts in the wrong direction, resulting in an unnatural look.

Too deep or too shallow insertions of the grafts: Physicians, when inserting grafts, might go too deep or too shallow. In either case, the success rate decreases significantly.

"Deep insertions may cause Vascular Injury, which is the most vital complication."

Vascular damage can cause necrosis, reduce graft survival rate, and harm existing hair. These may result in regional hair loss.

- **Bad planning of the hairline and the insertion of grafts:** Physicians might not consider the best post-op cosmetic possibility before and during the operation, because of their lack of experience. This can result in an unnatural-looking hairline.

- **Bad storage of grafts:** This may sound like a simple thing but believe me, it is not.

Live hair cells are taken out from the body and left without blood supply; **no glucose and oxygen supply**. They are exposed to different outer pressure forcing cells to use energy sources to counterbalance to remain intact.

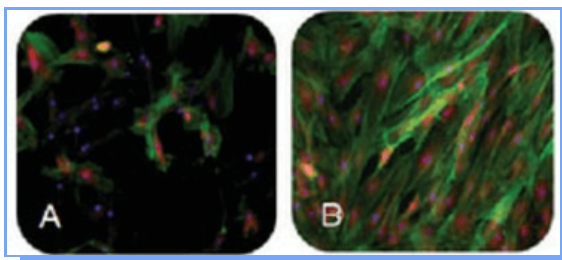
Even if implanted in 6 hours to recipient zones, **they are not connected to blood vessels for 4 or 5 days**. So they are susceptible in this period and require special treatment.

Most clinics make graft storage mistakes: They use extracellular storage solutions such as saline and Ringer's Lactate and reduce the temperature to around 4°C. The cell metabolism reduces and can't produce enough ATP to balance the external pressure. Thus, cell swelling occurs, causing scalp swelling, edema and pain for days.

"At UnitedCare, we use intracellular storage solutions and safely reduce the temperature to slow the cell metabolism. These solutions are very similar to the hair cells and make cells stay alive even for 5 days outside the body."

The intracellular storage solutions are extremely expensive (One Liter is over 1000\$) and used in other organ transplants (E.g., kidney transplantation). That is why just a couple of clinics are using them in Turkey (Koray Erdogan is one of them).

The image below shows the cell recovery difference between intra- and extra-cellular storage medium after cold storage. The difference between cell survival and metabolism rates is exceptionally high.



A: Traditional isotonic storage media, B: Intracellular storage solution. ([Source](#))

These might seem bad, but these are just the tip of the iceberg, I'm afraid. Physicians and clinics make unhealthy and insufficient practices to cut costs or effort.



Source: [The International Society of Hair Restoration Surgery \(ISHRS\)](#).

Failures caused by the Patients

In cases where the patient was eligible for a hair transplant, and the experienced physician had a successful operation, the patient most likely causes failures.

After a successful operation, the planted hair follicles will stay in your scalp as healthy hair follicles, as long as you don't give them another reason to fall out.


For example, the success rate of hair transplants significantly reduces in the patients who practice heavy smoking and excessive drinking after their surgery. If you want to improve the chance of your success, you'll need to give your body everything that it needs to make the planted grafts survive.

A proper diet full of healthy proteins and staying away from everything that can cause hair loss should be enough to maximize the survival rate of your new grafts and promote further hair growth.

You can use our [Care Assistant](#) to learn about everything you should and shouldn't do after a hair transplant surgery.

▼ Hair Care and Wash

Following washing instructions ⓘ	✓	8 Days Remained
It is very important to follow the washing instructions for 15 days post-op.		
Shower ⓘ	✓	
Warm water with low pressure ⓘ	✓	23 Days Remained
Use of special shampoo(given to you) ⓘ	✓	7 Days Remained
Soft towel ⓘ	✗	23 Days Remained
Blow dryer with only cold air ⓘ	✓	



Hair Transplantation Personalized Pre- and Post-Care
Instructions on Care Assistant

Are cheap clinics that bad?

Most of them, yes.

Maybe even worse than you think. Here are some of the practices I've seen in clinics with cheaper pricing plans:

- 2-person transplantation operations instead of 3, to cut on costs.
- Inexperienced staff.
- Unhygienic operation rooms, no AC, and equipment in bad shape.
- Operating on multiple patients at once. Therefore, insufficient care and effort for patients.
- Inferior clinic buildings, hotels, transportation.
- No follow-up post-op.
- **No dermatologist on-site.**
- Inflated graft count and overharvesting to charge more.
- Useless lifetime warranty certificates.

Are expensive clinics that good?

Not all of them, no.

Yes, some clinics with a high price range offer top-quality service, with experienced and expert physicians and state-of-the-art equipment.

But sometimes, this makes them unaffordable for the average patient. Also, they usually provide patients with unnecessary luxury items to pump up the price. In my experience, most of these "VIP" clinics are overpriced and offer similar experiences to above-average clinics.

Another downside of these expensive clinics is that they operate on a vast number of patients every day (known as "hair mills"). **Therefore the doctor can only allocate 2-3 minutes per patient and does not involve in the operation.**

Our Honest Advice as Dermatologists

Our advice as dermatologists is that if you can afford it and you like the feeling of "exclusivity," you can go for the expensive clinics. But note that you won't be as "exclusive" post-op.

And if you're not exactly sure of their service or have any doubts whatsoever, avoid the cheaper clinics; because, as I've said, their advertisements can be fake, and their care is much more inferior to an average clinic.

If you're not sure what to pick, you should do to contact multiple clinics, ask for success stories, **and test them**. Most clinics you find online offer a free consultation to determine the degree of your hair loss and understand the underlying reasons.

You can easily compare different evaluations of your condition and tell if their answers are generic or genuine. You can easily estimate the quality of the experience you'll get in a clinic according to the quality of your free consultation.

Why we started a Hair Transplantation Clinic

Turkey, especially Istanbul, is a trending spot for hair transplantation and dermo-cosmetics.



3,000+ diseases and conditions including hair loss can be identified and cured by a dermatologist



To become a dermatologist, 12 years of training should be successfully completed



Dr. Utkan&Kübra treated more than 100,000 patients combined

Prices are much more affordable compared to Europe, the UK, and North America, and some of the best physicians and dermatologists are located in Turkey.

However, the fact that there are outstanding physicians in Turkey doesn't make every clinic a 5 star stop.

Like any other country, clinics with poor service and inexperienced staff members are much more common than good ones.

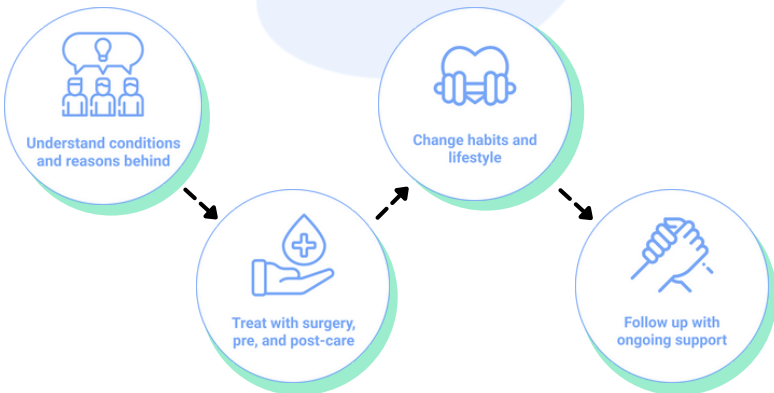
As a dermatologist duo with 19 years of combined experience, we thought we could offer something better, an experience that is bigger, **a holistic approach to hair transplantation.**

A Holistic Approach to Hair Transplantation

What we've been trying to do from the start of this ebook was to inform you about the whole concept of hair loss; whether you have it, why it happens, how you stop it, how you reverse it...

We followed this approach because hair loss should be treated like any other adverse medical condition; patients should be aware of what they're experiencing to cure it. We hope we've been of help to you.

That's what we've been doing with our patients for a long time, explaining to them the reason for their condition and how we would solve it, what they are required to do for us to succeed, too.



Holistic Approach Steps for Long Term Success

Before we conclude this chapter, and the whole ebook really, let's take a look at what the hair transplantation process looks like for a patient at UnitedCare:

Pre-Surgery

A patient's experience with UnitedCare starts when they reach out for a free consultation or book an appointment.

Then, we reply, asking for some basic information and a few photos to evaluate their condition. Doctors personally look at the patient's information and photos to produce an early opinion.

We discuss the reasons for the patient's hair loss. I try to understand their background and what could be contributing to their situation.

Then, I suggest the patient with their options moving forward, first with a few pieces of advice that could help them stop or minimize hair loss by themselves; then, if they're eligible, we plan an in-person appointment.

If the patient resides outside Istanbul, Turkey, we select a date considering travel, transportation, and accommodation arrangements. We include transportation by a personal driver and accommodation in a 5-star hotel in our package, and we ask our patients just to book a plane ticket.

Once the patient arrives in Istanbul, they're brought to the clinic, where they meet our dermatologists for an examination and planning.

First Examination

The patient meets our dermatologist, and the examination starts.

First, the background of the hair loss for the patient is determined; the dermatologist is informed of the overall health condition of the patient the medications they're currently on. Once the exact reasons behind the hair loss are certain, the degree of hair loss is determined.

After the examination, the patient is informed of their condition: what it is, why it's happening, what they should expect in the future, and what they should do. They're then informed about the next steps in their hair transplantation and what they should do post-op.

The target hairline is decided with the patient (dermatologist suggests the best course of action). Then, the number of grafts to be harvested and planted are determined and the hair is shaved before moving into the surgery.

Surgery

The surgery takes 6-8 hours, depending on the number of grafts harvested/planted and the planting technique.

Before the surgery, the patient is injected with local anesthesia to prevent any pain during the surgery. Usually, an injector with a needle is used, but dermojet, a needleless injection, can be used based on the patient's choice. (Sedation option is also available but it requires an anesthesiologist increasing the cost.)

After the anesthesia, the surgery starts with the harvesting phase, where grafts from the donor area are carefully extracted and put into a proper liquid for storage.

Why do we use special and very expensive liquids (bioenhancements) for storage and aftercare?

- Physical trauma and blood flow are the most critical factors affecting graft survival.
- In a hair transplant, grafts wait about 5 days to be reconnected to the blood supply again.
- Without bio-enhancements, 10-15% of grafts die even after a flawless surgery (Nobody tells you).
- Bioenhancements provide grafts the best medium for survival, recovery, and growth.
- At UnitedCare, we achieve outstanding results thanks to bio-enhanced hair restoration techniques.

Then, these grafts are again carefully implanted into the target area determined in the pre-surgery planning. And finally, the donor area is dressed, and the surgery ends.

Post-Surgery

When the operation is done, the patient is informed of everything they should be careful about in the future. They are provided with the medicines and the products they're going to use and informed of how they should use them.

A day or two after the surgery, they are called in for an examination. Their dressing is removed, and they are shown how they should wash their hair in the following weeks during the first wash.

Any question the patient has is answered before they leave.

Leaving Istanbul

Patients often prefer to leave Istanbul the day after the surgery, once their hair is washed, but some prefer to stay and enjoy everything Istanbul and Turkey have to offer for a while.

So it's done, right?

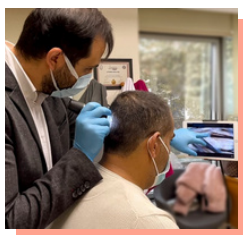
Not necessarily, no.

As we've mentioned many times in the previous chapters, hair loss can't simply be fixed by a single surgery. Hair transplantation isn't going to be completely successful if you aren't paying attention to your body and its needs.

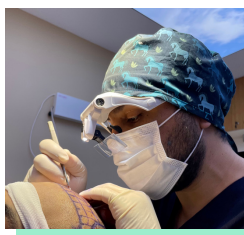
Our dermatologists contact patients every month post-op for at least 6 months to observe the hair growth stages. But, after that, the communication line is always open between the patient and the physician whenever a question arises.

Failures in hair transplantations are not often caused during the surgery; it's caused when the physician ignores the underlying reasons for hair loss or when the patient doesn't provide their body with everything it needs for the success of the process.

In UnitedCare, our team of experts aims to ensure success before, during, and after the surgery to minimize even eliminate any chances of failure that might ruin your life.



Dermatoscope telogen, miniaturization check



Dr. Utkan executing the surgery plan



Dr. Utkan drawn personalized hairline

Chapter 5 Summary

- Although there is a 5% fail rate in hair transplant surgeries, this rate can significantly increase for some clinics.
- Hair transplantation fails can be caused by the wrong selection of patients, wrong practices by physicians and clinics, and wrong practices by patients post-operation.
- Clinics on the cheaper price range often practice unhealthy methods that would contribute to the failure of hair transplantations to cut costs.
- Clinics on the more expensive price range have trained physicians with top-of-the-state equipment, but they're still overpriced for the average patient.
- In UnitedCare, we've adopted a holistic approach to hair transplantation. This means that we address underlying reasons, help you stop hair loss, regain your lost hair, and follow-up post-operation to ensure the success of the surgery.



The first step is half the journey.

You have already taken the most important step in your hair restoration journey by reading this book to the end.

For a personalized hair loss examination, you can always contact us free of charge.

And don't forget; If you decide to join the **UnitedCare** family, we will be **United** from pre-op consultations to post-op **Care**.

[GET A FREE CONSULTATION](#)