

Folli-Surge Microneedle and Light Therapy Treatment Plan

This system uses advanced microneedling with two types of light to activate hair follicles.

This treatment combines microneedling and targeted light therapy. It works by making small, controlled injuries with microneedles. These small injuries help your body start its natural healing process. The special light then gives energy to your cells. This helps the cells heal better and faster. Together, these steps strongly activate hair follicles, leading to better hair growth.

How it Works: The Science Behind Better Results

Microneedling Stimulation

Tiny needles create small injuries. This starts the body's healing process, releasing important growth proteins (like PDGF and VEGF). It also activates a special cell pathway (Wnt/ β -catenin) that helps hair follicles move from a resting state to a growing state.

Light Therapy

Specific light waves are absorbed by a part of the cells (mitochondrial cytochrome C oxidase). This greatly increases the energy cells make (ATP). This gives cells enough energy to heal. It also helps control swelling in the body.

Working Together

Microneedling makes tiny paths in the skin, letting light reach deeper areas. The light therapy gives cells more energy, which speeds up the healing process started by microneedling. This combination gives much better results than either treatment alone.

Full Treatment Process: 8 Strong Steps

01

Clean Scalp and Prepare

Use a special shampoo to clean the scalp well. This removes oil, dandruff, and germs.

03

Yellow Light Pre-Treatment

Shine 590nm yellow light for 30 minutes. This calms redness and helps blood flow.

05

Folli-Surge Microneedling

Gently roll the microneedling device over the skin for 10-15 minutes until the skin looks slightly pink (no bleeding).

07

Red Light Treatment

Shine 630-660nm red light for 30 minutes. This boosts cell energy to the highest level.

02

Dry Hair and Control Heat

Dry hair completely with cold air. This avoids heat damage and helps the light treatment work evenly.

04

Final Clean Before Microneedling

Clean the area with sterile salt water to make sure it is very clean before starting.

06

Clean Skin After Microneedling

Clean off any fluids with salt water. This makes sure the light can reach the skin well.

08

Aftercare and Healing

Follow a special care plan to help new hair grow at each stage.

Step 1: Scalp Cleaning and Aseptic Preparation

Scalp Cleansing & Aseptic Prep

Procedure

Thoroughly clean the scalp using a pH-balanced, residue-free antibacterial shampoo. Make sure to cover the entire treatment area. Gently massage for 2-3 minutes, then rinse completely with warm water.

Why It's Important

This is a crucial first step for a clean and germ-free process. It effectively removes oil, dandruff, and germs, which lowers the risk of infection during the microneedling treatment. A clean scalp also improves how well the following light therapy works, by preventing dirt from scattering or absorbing the light.

Clinical Tips

- Do not use shampoos that contain silicone or heavy ingredients.
- Make sure to rinse thoroughly, as any leftover product can reduce the effect of light therapy.
- The person performing the treatment must strictly follow hand sanitizing rules.

Step 2: Drying and Heat Control

Drying & Thermal Control

How to Do It

Use a hairdryer on a **cool setting** (no heat). Keep it at a safe distance. Dry the whole treatment area of the scalp completely. Make sure there is no wetness left.

Why It Matters

High heat can cause a "heat stress response." This might affect the treatment later. A dry scalp helps light reach the skin evenly. This is because water can scatter or absorb light. This makes the light less effective and stops it from going deep enough.

Important Notes

- Never use a hot air setting.
- Keep the hairdryer 15-20 cm (about 6-8 inches) away from the scalp.
- Only move to the next step when the scalp is completely dry.



What Heat Stress Does

When the skin gets too warm, it can activate special proteins (HSP). This changes how cells work and might stop the light therapy from having its full effect.

Also, if the scalp is wet, it changes how light moves through the skin. This can make the light go less deep into the tissue.

Step 3: Yellow Light Pre-Treatment

Preparing for Microneedling with Yellow Light

How to Use

Light Type: Yellow light, about 590nm

Time: 30 minutes

Area: The whole scalp being treated

Position: Make sure the light covers the area evenly

How it Works

Calms Swelling: It helps reduce swelling by controlling certain chemicals in the body, like IL-1 β . This lowers the amount of swelling before other steps.

Boosts Blood Flow: It makes blood flow better in the area, giving skin cells more oxygen.

Charges Energy: It helps skin cells make more energy (ATP). This gets them ready for the healing work that microneedling will do.

Why This Step is Important

This is a very important "pre-treatment" step. The yellow light gets the scalp ready by making the skin environment better and calming swelling. This helps microneedling work more precisely and effectively. It also lowers the chance of too much swelling after the main treatment.

Yellow light (590nm) can go deep into the skin. It gently stimulates cells to make energy without causing too much heat. This step makes sure your skin is in the best natural state for the entire treatment plan.

Step 4: Final Clean Before Microneedling

Final Aseptic Wipe-Down

How to do it

Use a sterile gauze pad soaked in **sterile 0.9% sodium chloride (saline solution)**. Gently wipe the whole scalp area where microneedling will be done. Wipe in one direction only. Do not wipe the same spot back and forth.

Why we do it

This step is the **final sterile preparation** before microneedling. It has one clear goal: to remove any small amounts of sweat, skin oils, or tiny air particles that may have gathered during the 30 minutes of yellow light treatment.

The skin's protective layer is about to be broken. So, we must make sure the treatment area is **completely clean**. This is key to stopping infections caused by the medical procedure.

Why sterile methods are important

"Every small detail before a skin-breaking procedure matters for **customer** safety. This final cleaning step might seem simple, but it's the last chance to create a germ-free area."



Choosing Saline Solution

0.9% sodium chloride solution is like the fluid in our bodies. It won't hurt cells or cause irritation. This makes it the standard choice for medical cleaning.

Step 5: Folli-Surge Microneedling

Therapeutic Microneedling - The Activation Step

How to Do It and Key Points

Use very clean methods. Use a sterilized Folli-Roller microneedle tool. Roll it evenly in many directions. Make sure to cover the scalp by rolling horizontally, vertically, and diagonally. This creates even tiny channels.

1

Prepare

Check that the microneedle tool is clean.
Put on gloves. Have clean gauze ready.

2

Operate

Roll evenly in many directions. Use medium pressure. Cover all treatment areas.

3

When to Stop

Stop when the scalp looks evenly pink (like small red dots). It must not bleed.

Suggested Time

10-15 minutes

Adjust time based on the area size and how sensitive the scalp is.

Why it Works

This is the important **"activation" step**. Small injuries start the body's healing process. This releases important growth factors like PDGF and VEGF. It also activates the **Wnt/ β -catenin signaling pathway**. This is a key switch that moves hair follicles from a resting phase to a growth phase.

Safety Warnings

- Do not press too hard; this can cause bleeding.
- Do not roll over the same spot too many times.
- If something unusual happens, stop right away.

Step 6: Cleaning the Scalp After Microneedling

Post-Procedure Cleansing - Getting Ready for Light Therapy

1

How to Clean

Use a sterile gauze pad soaked in **sterile saline solution** to gently dab the scalp. Then, use a dry sterile gauze pad to lightly pat the scalp dry. **Do not rub the scalp.**

2

Key Difference from Step 4

The goal of Step 4 was to prepare the scalp for treatment (make it clean). The main goal of this step is to **remove any fluid (serum) or small spots of blood from the micro-channels**. These fluids can block or reflect light.

3

Science Behind It

Proteins and red blood cells in serum and blood can greatly **scatter and absorb light particles**. If these are not removed, the next step, red light therapy (LLLT), will not be able to reach the target depth effectively. This will make the treatment much less powerful.

Clinical Tip

This step must be done very gently. Do not damage the new micro-channels created during microneedling. Always dab, do not rub. This removes fluids while keeping the micro-channels safe.

Step 7: Red Light Therapy (LLLT)

Cellular Boost - Combined Effect Step

630-660nm Red Light Treatment for 30 minutes

Immediately after cleaning the treated area, apply Red Light Low-Level Laser Therapy (LLLT) to the scalp. Timing is very important. The tiny channels created by microneedling allow light energy to reach the deep skin layer directly.



Mitochondria Energy Activation

Red light is strongly absorbed by an enzyme called **Cytochrome C Oxidase** in the mitochondria. This makes the cell's energy production much better, leading to a big increase in ATP. This gives cells lots of energy to repair themselves.



Nitric Oxide Release

Red light helps cells release **NO (Nitric Oxide)**. This is a strong factor that widens blood vessels and helps reduce swelling. NO quickly calms redness and swelling after microneedling. It also makes blood flow better in the area, helping to clear waste faster.



Faster Cell Repair

With plenty of ATP energy, cell division, protein making, and growth factor release all happen much faster. Red light combined with microneedling makes wounds heal quicker and improves the quality of collagen repair.

This is the most important "**combined effect**" **step** in the whole plan. The red light can now easily go deep into the tiny channels. When cells need a lot of energy because of the small injuries, the light's effect on cells is greatly increased. This creates a healing effect where 1 plus 1 is much more than 2.

Step 8: Aftercare and Healing

Post-Treatment Care & Healing Phase

After microneedling, your scalp heals like a normal wound. Following the right care steps at each stage is very important to get the best results and avoid problems.

First 24 Hours: Inflammation Phase

Do NOT: Wash your hair or put any products on your scalp (this includes Folli-Fix Minoxidil).

Optional Care: 2-4 hours after microneedling, you can apply Folli-care sterile medical hyaluronic acid gel for moisture. Or, you can use nothing at all.

Oral Supplements: You can take Folli-Activ supplements.

Day 3 and After: Normal Care

Washing Hair: You can start using Dr. M Hokkaido Kelp Shampoo as normal. Dry your hair with cool air.

Standard Care: Massage Dr. M Hydrolized Tonic until absorbed. Then apply Folli-Fix and massage for 5-10 minutes.

Daily Protection: Protect your scalp from the sun. Avoid anything that might irritate it.

1

2

Day 2: Proliferation Phase Starts

Cleaning: You can gently rinse your scalp with warm tap water (no shampoo). Do not rub hard.

Care Steps: Gently massage Dr. M Hydrolized Tonic until it is fully absorbed. Then apply Folli-Fix and massage for at least 5 minutes (10 minutes is best).

Important: Avoid direct sunlight or heavy sweating from strong exercise.

Oral Supplements: Keep taking Folli-Activ.

3

Treatment Timeline and Expectations

How Hair Grows

Human hair grows in stages: a growing stage (Anagen, 2-7 years), a resting stage (Catagen, 2-3 weeks), and a shedding stage (Telogen, 2-4 months). Our goal with microneedling and light therapy is to make hair follicles in the shedding stage start growing again.

But this change takes time. Even if the treatment makes the hair follicles active, new hair needs several months to grow out of the scalp and become long enough to see.

What to Expect

Early Changes (1-2 months): Your scalp will feel better, and your existing hair might look healthier.

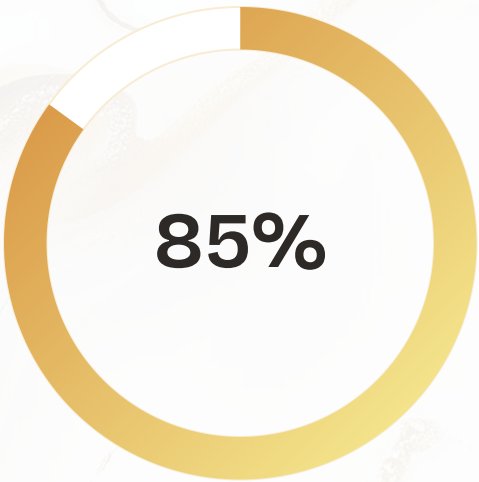
Mid-Term Results (3-4 months): New, thin hairs will start to appear. You might see changes first at your hairline.

Clear Improvement (4-6 months): You will notice more hair and thicker hair. This is the main time to see if the treatment is working well.



Months

Time needed for clear results from continuous treatment



Follicle Response Rate

Expected success rate for customers who follow the treatment plan

Important Point

It's very important to have realistic expectations. Hair regrowth is a natural process that cannot be rushed. Judging results too early or stopping treatment too soon often leads to failure.

Always continue and follow the treatment plan regularly. We usually suggest a full session every 3-4 weeks, for a total of 6 months.

Key Technology Comparison: Traditional vs. Folli-Surge Plan

Traditional Microneedling Alone

- Only uses needles to make growth factors
- Healing depends only on the body's natural processes
- Inflammation might be too much or too little
- Results vary greatly, hard to predict
- Longer recovery time, redness lasts unpredictably

Folli-Surge 8-Step Complete Plan

- **Yellow light before treatment** makes the scalp ready and lowers too much inflammation
- **Very clean steps** make it as safe as possible
- **Red light after treatment** helps cells heal faster and shortens recovery
- **Two types of light control** inflammation well
- **Care in stages** works with healing time for better long-term results
- Results are easier to predict, customers are happier

The main benefit of the Folli-Surge plan is the **exact timing of different treatments working together**. Yellow light prepares the scalp. Microneedling starts the healing. Red light gives energy. Care in stages protects the good results. Each step has a clear scientific reason and goal, creating a full treatment process.

Key Points for Clinical Use

1

Strict Sterile Practice

From the first cleaning step to the final care, always keep things sterile. Microneedling breaks the skin barrier, so any dirt can cause infection. Use items that are thrown away after one use, or items that are fully cleaned. The person doing the treatment must be trained in sterile methods.

2

Control Treatment End Point Carefully

When doing microneedling, the goal is to see **small red spots**, not bleeding. Doing too much can cause scars and make recovery longer. Doing too little won't help enough. You need good experience and knowledge of different scalp skin types to do this right.

3

Standard Light Therapy Settings

The yellow light (590nm) and red light (630-660nm) must have standard settings for their color, strength, and time. Machines need to be checked regularly to make sure their settings are correct and always the same.

4

Customer Education and Cooperation

Clearly explain how the treatment works and how long it will take. Set proper hopes for what the treatment can do. Stress how important after-care is. Give written guides for care. Set up a way to check on customers later, to find and fix any problems quickly.

5

Ongoing Quality Check

Keep records of all treatment details and how each customer reacts. Build a record of this information. Check treatment results regularly. Change the plan based on how each person reacts. Follow up after treatment to see results and make the process better over time.

The Folli-Surge 8-step plan is a new and advanced way to help hair grow. It combines microneedling with special light therapy and good care steps. This offers a safe, effective, and reliable treatment choice for people losing hair. Doctors need to understand why each step works to use this plan well and get the best results.