

Medical Hair Care

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In the near future, the skilled healing hands of a cosmetologist trained as a treatment specialist will enhance the astounding new science of hair cloning and more. With more attention being given to the health and care of the hair and the scalp, this is an exciting time for both physicians and cosmetologists. In 2003, cosmetologists and physicians, especially dermatologists, will start working together to achieve medical scalp and hair care.

Unfortunately, at present, most physicians spend only a few minutes—the notorious seven-minute hour—with each patient. Medical professionals will look to specialized cosmetologists to take the time to address client needs. Along with medical diagnosis, scalp and hair facials will be performed at medi-spas as both a luxurious beauty enhancing experience and an adjunct to medical service. These treatments are the key; with intense cranial massage, potent essential oils, heat penetration, oxygen infusions and application of topical medications, facials will be taken to a new scientific level. The product used will be effective not only for cosmetic beauty but to ease scalp conditions and to promote growth in both men and women. After a

complete clarification and stimulation of circulation, the scalp is ready to more fully receive topical medications. Specialists also will work with hair transplant surgeons to help heal and maintain hair transplants, by soothing scalp inflammation and scabbing, and removing buildup and serious crusting. Also, specific hair enhancing diets and nutritional supplements will be recommended for those receiving treatments.

Dermatologists also will have more effective solutions. They will continue to perform examinations with blood work and scalp biopsies and prescribe topical medications such as steroid creams for scalp/skin conditions and Minoxidil for growth, as well as oral medications such as Propecia and Aldactone. New, more potent Minoxidil mixtures with hormones will become the norm. Steroid injections currently are used for hair loss caused by immune deficiencies (alopecia areata) to encourage growth. New formulas with potent androgen blockers (androgens cause hereditary hair loss), copper peptides and amino acids will become the new injection and topical medication. More medical studies will be done concerning female hair loss, producing an effective oral medication; in the next few years there will be a birth control pill that also helps scalp hair growth. More

low-level lasers will be used to promote growth, similar to the way lasers are used for the face.

But, the biggest future breakthrough for hair loss is hair cloning, which is DNA and tissue engineering. The scalp and hair facial will enhance the effectiveness of all of the above.

“The biggest breakthrough for hair loss will be hair cloning.”

Scientists are just now learning exactly how hair grows, and both the medical and beauty worlds are utilizing the information. There will be alliances with hair care companies and pharmaceutical companies such as Upjohn and Merck, which make Rogaine and Propecia, respectively. Hair care products will be all-intensive, both cosmetic and treatment, focusing on hair loss prevention and repair. Products will facilitate styling while easing scalp conditions and encouraging growth. Hair color and other chemicals such as relaxers will be created with new science, thus, becoming more effective and less damaging. In addition, heat styling tools will progress with ionic science.

The Treatment Specialists

As dermatologists team with stylists, a cosmetologist whose interest is keen will be able to spot certain key problems that may be

linked to deeper health problems, making sure clients are treated both inwardly and outwardly for their ultimate beauty and health, ensuring more longevity for finicky follicles. These cosmetologists will become treatment specialists further trained in trichology (the science of hair), cutting-edge science and product, nutrition, healing botanicals, medications and how physicians treat related conditions. Specialists will work in a well-informed fashion with dermatologists and hair transplantation surgeons.

Cosmetologists are historically no strangers to the medical field. The barbers of early days were also the surgeons and dentists; the first official barber-surgeon organization was founded in France in 1094. Most early physicians disliked surgery, so the barbers did surgery of wounds, bloodletting, leeching, enemas and extracting teeth along with haircutting, hair dressing and shaving duties. The barber-surgeon body was subsequently dissolved and later replaced by the Royal College of Surgeons in 1800 during the reign of George III. No barbers were allowed to join.

The origin of the barber's pole represents his service of bloodletting; another interpretation is that red represents arterial blood, blue is symbolic of venous blood and white depicts the bandage. After the formation of the United

Barber Surgeon's Company in England, a statute required barbers to use a blue and white pole and the surgeons to use a red pole. But a new alliance is coming soon!

Cosmetologists will be able to help a wider range of clientele. At present, most clients seeking scalp and hair treatments have damage from chemicals, severe heat styling and pulling, poor extensions, poor diet and environmental exposure. Sometimes excessive chemical and styling rituals can lead to a medical condition called chemical or traction alopecia, in which case the treatments to rejuvenate and hydrate the hair shaft are rather straight-forward and limited—botanical mixtures, massage and heat penetration—for every client. Clients who suffer severe flaking, thinning and loss of hair will be able to enjoy a more effective, informed service.

More and more clients with special needs are seeking help and don't know where to go. While men have suffered testosterone-induced hair loss, many women both young and old experience excessive anxiety over abnormal shedding, diffuse thinning, singular bald spots the size of a quarter, and even a rare allergic reaction to hair color that results in serious hair loss. Both men and women can suffer scalps that are embedded with flakes, irritated and a constant embarrassment. And men with hair

transplants can suffer constant infection. These clients need the attention of both a physician and a cosmetologist. After medical examination, and medication is prescribed, the treatment specialist can help ease these problems.

Combining knowledge and attention to detail with a skill to beautify, the cosmetologist can perform a more individualized treatment, achieving optimum results while comforting the client. A woman losing her hair, or suffering encrusted flaking for years, will be most grateful for the relief. Many of these conditions are emotionally upsetting. Deep breathing and visualization techniques may be added to a treatment for anxiety-ridden clients. In some cases, clients are encouraged to go onto the Web and to join support groups for severe skin conditions and hair loss.

"Styling product will ease scalp conditions and encourage growth."

Physicians function as highly educated detectives, making an extremely well-informed guess. The cosmetologist will become more equipped to make their best guess when it comes to the hair and scalp. For example, if a female client comes in with excessive shedding (telogen effluvium) the specialist will know that this can be

induced by sudden illness, stress, fad dieting, going on or off the birth control pill and pregnancy, thus informing and reassuring the client. A hypo or hyper thyroid and anemia (low iron) can cause hair loss, so the specialist can let the client know that she should be checked by her physician for these and other specific conditions. The treatments can be tailored to these clients needs and help boost any medical remedy.

“Gene-based therapy will be here in five years”

One look at a flaky scalp and specialists will have a good idea if it is psoriasis, demonstrated by dry silvery embedded scales, or seborrheic dermatitis, characterized by somewhat yellow plaques. With this knowledge, they can converse intelligently with the physician about prescribing a steroid cream (Cormex), or a vitamin D cream (Dovenex), which can be applied after a treatment.

Hair Growth Gene

Dr. Marty "Mary" Sawaya, University of Florida, is close to discovering the gene that causes baldness or hair loss. According to Sawaya, a treatment for hair loss based on her studies of genes, will become available in about five years. The gene-based treatment has one of two approaches: to keep the baldness gene from being

activated or to duplicate the gene for healthy growing hair in someone who is losing his hair. Either approach can take the form of a topical lotion or cream. The biggest issue is how to deliver the good gene to the cells.

Hair Cloning

The term “cloning” is used by scientists to refer to the technique where genes are inserted into a cell—not actually cloning, but tissue engineering. If the cells of the hair follicle could be multiplied in the laboratory and placed back into the balding scalp, it may be possible to create thousands of hair follicles from that original follicle. In fact, this phenomenon already has been proven feasible in humans. However, this research is currently in early stages. The obstacles are the cosmetic, such as growth direction, and chances of tumor formations.

A San Francisco-based start-up, Hairogenics Inc. officially launched a new subterranean hair storage service. Hairogenics will preserve hair samples in its special vault underneath a Portland, Oregon, hair salon—vacuum-sealed in waterproof packages and stored in a darkened, temperature-controlled environment to protect it from light and moisture. Oregon was selected for the facility site because its soil has large amounts of clay, a material cited as a good natural preservative, keeping it

fresh until science can devise a way to clone hair from DNA.

New Medications

Pharmaceutical companies keep their new discoveries secret, and many are in development. In the past two years, biologists have learned how the follicle forms in embryos and have discovered proteins known as Wnt proteins that signal and regulate the hair growth process throughout life. They’ve recently found that many follicles don’t die, but instead shrink and malfunction. Medications that can manipulate the Wnt proteins might prevent and help shrunken follicles to produce hair once again. This is a major discovery.

At present, fewer options are available for women because of their more complicated hormonal makeup, the chance of birth defects and a general lack of studies on women. More studies of female hair loss are being conducted internationally, however. Propecia, a successful oral medication for hair growth, inhibits one of the two types of enzymes, which turn testosterone into Dihydrotestosterone (DHT), an androgen hormone that causes hair loss. Dutasteride, just available December 2002, blocks both types of enzymes. Unfortunately, both these medications can cause birth defects. Substantial clinical trials are being done with non-pregnant

women suffering hair loss and Dutasteride. Pharmaceutical companies are working on a version of these that can work just as well for women.

Soon birth control pills in the United States will mimic and surpass Diane 35, a European birth control pill that also helps hair grow because of its anti-androgen qualities. Prescription medications that decrease the action of androgen hormones play key roles in triggering hair loss in people with a genetic predisposition—a condition known as androgenetic hair loss, both male and female pattern baldness.

New copper peptide medications such as Tricomin spray stimulate collagen and protein production at the base of the hair follicle. As the science of the delivery of copper becomes more exact, this, too, looks like a great option for both men and women.

Minoxidil is the only Food and Drug Administration-approved hair loss medication that is available without a prescription. Stronger concentrations are prepared by some pharmacologists and physicians who specialize in pharmaceutical hair loss treatment. These specially prepared formulas are available by prescription only. Experimentation is being done to enhance this topical product; mixtures will be made into easier to

apply forms such as gels and pomades.

Pharmaceutical and hair care companies are working on creating hair care and styling products that make the hair beautiful and thick, while bringing the medical benefits of all the above to the scalp. Beautifying hair products will also be designed with steroid and prescription vitamin D cream benefits for scalp/skin conditions.

Going Natural

Treatment specialists also have knowledge of healing botanicals such as essential oils. The publishers of the guidebook for prescription medications, *The Physicians Desk Reference* (PDR), have come out with an Herbal Medicines version filled with scientific information about the usage of extracts and oils. The penetration of the essential oils has been proven scientifically and more and more physicians recommend essential oil mixtures along with medications. Specialists can make an individualized mixture for each client, such as clary sage, peppermint and ylang ylang for hair loss and clary sage, tea tree, lavender and thyme for psoriasis. Many botanical extracts and oils have potent antibacterial and anti-fungal properties that can ease not only skin conditions, but also can help prevent and minimize fungus and bacteria caused hair loss.

As the old is combined with the new for a more holistic approach, scientific prejudices against nature's cures will change more swiftly. In the coming years, there will be many studies on essential oil usage for scalp hair growth and scalp flaking. The present answers to these problems are nebulous at best. Old and new must be put together into a toolbox for these needs.

Inside Story

Treatment specialists also will be aware of nutrition and supplements, recommending such supplements such as Biotin, MSM, horsetail extract, B vitamins (Folic Acid, B-12, Niacin), green tea extract, saw palmetto, GLA, nettle and cayenne. Yeast-free diets and a diet with a higher level of protein will be key for clients with excessive flaking. Treatment specialists will consult with nutritionists for the optimal remedies.

“Many women experience excessive anxiety over abnormal hair conditions.”

The Treatment Process

Several centers for hair loss and treatments help revive damaged hair, but there are very few treatment centers for serious scalp/skin conditions such as psoriasis and chronic dandruff.

PMPR Cosmetic Forecast 2003/2004

Soon treatment centers will cover the whole spectrum of scalp and hair problems.

In many cases, patients have suffered with scalp/skin conditions that can lead to hair loss, for many years, trying many recommended medical therapies and medications with no relief. Sometimes, these patients have been able to ease the skin conditions on their face and body; however, they have had no relief on the scalp area, because of the density of hair in combination with severe buildup of scales and plaques—and often irritation and sores.

The process of simultaneously bringing up deeply embedded scales gently, cleansing, soothing, stimulating and medicating the scalp requires a long, meticulous ongoing therapy, taking up to three hours per session. The treatments help to stimulate growth, by easing the irritation and inflammation that cause the follicle to become dormant, and preparing the scalp for medicine penetration, when previously the buildup prevented any penetration.

The steps of a complete medical and treatment process, documented with professional medical photos and performed with medically sterilized equipment, include:

- Meeting with the physician for examination and testing, as well as the prescription of oral or topical

medications and a series of cosmetologist treatments or laser treatments. In some cases, a series of injections will be recommended also. The physician or a registered nurse may perform laser treatments and injections.

- Meeting with a treatment specialist for a consultation and examination, as well as a recommended diet and supplements.

- After the more traditional actions, there is the application of medical-grade oxygen and, in the future, the use of hyperbaric chambers. The application of medical-grade oxygen—previously done only on the face and for burn victims—eases inflammation, nourishes and brings growth promoting oxygen to the scalp. The oxygen will be enhanced with MSM, vitamins, sea minerals, Minoxidil and anti-androgens infusions.

- Application of topical medications.

- Prescription of at-home programs and gentle styling methods.

- Other treatments to be performed to help heal and maintain hair transplants; to promote wound healing and ease scarring after surgery on the scalp area. Optional services include specialized color and chemical applications for people with special scalp conditions and special needs,

such as extremely delicate, broken hair. Gentle hair cuts and even styling for chemotherapy patients and others with delicate hair. **PMPR**