

The Makeup of a Hair Follicle

Every hair on your head stems from a deep pouch-like configuration in the epidermis (hair follicle) which infiltrates the dermis. A hair root reaches down into the hair follicle and broadens into an indented bulb at its foundation. Continuing into the indentation is the papilla (the hub of hair growth) which includes capillaries and nerves that supply a hair. Newly dividing cells at the center of the hair multiply, driving cells above them upward. As cells travel upward, they slowly die and harden into a hair shaft. A hair shaft has three layers:

Cuticle- It is transparent and performs as protection for the inner layers. It consists of flat, colorless, overlapping cells. If you looked under a microscope, a cuticle is similar in facade to shingles on a roof. When your hair is in good condition, is straight and has good porous nature, then the tiles or cuticle layers are tight together and in perfect shape. That is when your hair has that smooth appearance. This makes light reflect off the hair boosting the shine! When your hair is in poor shape, is curly or is not porous, the cuticle layers are lifted and sometimes damaged and broken. This makes your hair feel coarse and brittle. It also triggers the hair to absorb light, giving the appearance of dull lifeless hair.

- **Medulla-** This is the innermost layer and is composed of large baggy cells that may possibly have a hollow-like facade.
- **Cortex-** The cortex, which is the layer between the cuticle and the medulla, holds pigment and keratin, a resilient protein, which is also present in our nails and skin. The cortex fashions the bulk and the strength of the hair shaft.

The oil (sebum) that your hair needs is provided by the sebaceous glands, which are located in hair follicles. The sebum oil protects the hair and keeps it shiny and waterproof. If you become ill or experience an abundant amount of stress, pigment secretion can diminish and cause hair shafts to whiten. Age-related whitening is sometimes genetically determined. Hair color and texture are inherited traits.

The Lifecycle of a Hair

Your hair growth cycle has three key phases:

- The anagen phase is the growth cycle and characteristically lasts from 3-5 years.
- The catagen phase follows the conclusion of the growth period when a follicle starts to become dormant.
- The telogen phase is a dormant or inactive period that persists for 3 to 4 months. When the dormant segment ends, a mature hair falls out. The hair follicle then revisits the anagen stage and a new hair starts to grow.

Roughly 84% of scalp hairs are in the anagen stage, 1-2% are in the catagen stage, and 10-15% are in the telogen stage.

If your scalp is healthy, the hair on your head numbers about 100,000 and 90% of the follicles are constantly in the anagen stage of hair growth. A typical rate of hair growth is about $\frac{3}{4}$ " per month contingent upon hair follicles and age of the individual. When the hair reaches a foot long, the rate of growth is reduced by about half. We know no one wants to lose any hair, but everyone, on average loses 50-60 scalp hairs a day and new hairs proceed to grow from these follicles.

Common Disorders of the Hair

Maladies of the hair shaft or hair follicles are many and consist of some of the following:

- Dull or Dry Hair
- Recurring Split Ends
- Recurring Dandruff
- Premature Greying
- Thinning Hair
- Alopecia- Baldness or loss of hair
 - Alopecia totalis- Loss of all scalp hair
 - Alopecia universalis- Loss of all body hair, including eyebrows and eyelashes
 - Alopecia areata- Sudden loss of parts of hair

- Androgenetic alopecia- Male pattern baldness.

Telogen effluvium- Extreme shedding of hair, but not complete baldness. This is usually linked to various illnesses and drug treatments, rapid weight loss, anemia, high stress or pregnancy.

Trichotillomania- This is indicative of patches of broken hairs and partial hair loss, usually on the scalp but sometimes it involves the eyebrows as well.

Tinea Favosa or Favus- An infection of the hair follicle that is caused by the fungus *Achorion schoenleinii*, which is characterized by the formation of small crusts around the mouths of the follicles (sometimes looks like a honeycomb).

Tinea trichophytina (ringworm)-is produced by fungi of the genus *Trichophyton*.

Causes of Hair & Scalp Problems

Drugs: (That Can Cause Temporary Hair Loss)

- A number of Anti-Depressants
- Chemotherapeutic agents used for cancer
- Oral Contraceptives (birth control pills)
- More than two aspirin a day
- Cortisone
- Anticoagulants
- Diet Pills
- General Anesthesia
- Amphetamines
- Beta Blockers used to control blood pressure
- Retinoids used to treat acne and skin problems
- Steroid based drugs

Other Causes That May Instigate Hair Loss or Problems:

- Hormonal Imbalance
- Toxic Shampoos and Hair Care Products
- Burns
- X-Rays
- Scalp Injuries
- High fever
- Severe Illness
- Thyroid Disorders (Specifically Hypothyroidism)
- Iron Deficiency/Anemia
- Exposure to Chemicals and Heavy Metals
- Stressful Situations
- Woman Who Suffer From Heavy Periods (Could be a Sign of Iron Deficiency)
- Permanent Waves
- Bleaching Your Hair
- Dyeing Your Hair
- Malnutrition
- Diabetes
- Heredity
- Vitamin and/or Mineral Deficiency
- Following Childbirth
- Heavy Metals in the Body

Alopecia Related Hairloss

There are two key varieties of alopecia: scarring and non-scarring. The type of alopecia ascertains the ability to reverse the consequences and what kind of treatments can benefit. The scarring form of alopecia is likely to be less reversible. This kind is normally the end result of infections that cause inflammation around the hair follicles, which ultimately causes the hair follicles to be replaced with scar tissue. Most of the time it is because of deep bacterial and fungal infections (ringworm is an example) or an infection of the herpes zoster virus. The best case scenario would be to have a culture taken near the area with the problem. This may give you the opportunity to unearth the organism responsible for the infection and develop a treatment plan. Scarring alopecia could

also result from a physiological trauma such as a chemical burn. Additional reasons could involve maladies such as lupus, syphilis, tuberculosis, and sarcoidosis. Additionally, tumors may cause scarring of the scalp, but this is more likely to be from the radiation treatment for the tumors.

The non-scarring type of alopecia is the more common kind of hair loss. Male pattern baldness would fall under this category. Male pattern baldness is described as thinning hair and receding hairline. It usually commences when a man is in his late thirties or early forties, but it has started as early as late teens in some males.

Hormone-related hair loss may possibly happen to women and, more than likely, after menopause, during and after pregnancy and every during teenage years. Hormone-related hair loss is apt to be primarily a thinning of the hair and is not typically as widespread as it is for men.

Frequently, acute illness may initiate temporary hair loss. High fevers are inclined to be the main activation. The identical variety of alopecia has also been linked with certain medications, most markedly, drugs used for cancer chemotherapy.

Additional drugs that can be a factor in hair loss include: birth control pills, anti-inflammatory drugs, blood pressure medication, allopurinol, and anticoagulants. Although vitamin A is ideal for healthy skin and hair, extreme amounts of vitamin A can be toxic and may lead to hair loss. Glandular difficulties, mineral deficiencies, malnutrition, and surgery could also be a factor in hair loss.

On occasion, hair can fall out in patches about the size of a quarter, and at the same time the surrounding areas seem normal. This malady is known as alopecia areata, and some researchers believe that it is caused by an immune system problem. The hair is likely to grow back, but recurring hair loss is normal.

Hair that is continuously pulled into tight braids or ponytails can be subject to hair loss as well, but it is usually temporary. Hair, however, that is subjected to chemical dyes, bleaches, hair sprays, toxic hair care products, and other harsh chemicals can undergo severe damage, not to mention allow those very same chemicals to leech into your body causing a number of other problems.

Demodex Folliculorum

This is a species of tiny mite that some researchers have linked to hair loss. According to studies, practically everyone has the mite by the time we reach middle age. In one study, the researchers believed that the occurrence of Demodex Folliculorum is age related. They said that in people up to 20 years of age, the incidence was about 25%; in people up to 50 years of age, the incidence was 30%; in people up to 80 years of age, the incidence was 50%; and in all aged 90 or older, everyone has it.

Researchers believe that a number of people lose their hair because their body reacts to the existence of the mites and instigates the inflammatory response as it tries to rebuff the mites. Unfortunately, when the inflammatory process kicks in and blocks the hair follicle and killing the mite—it also kills the hair! Be sure to read our complete article on Demodex Folliculorum: The Unseen Culprit.

Heavy Metal Toxicity

A number of metals are naturally located in the body and are necessary to human health. One, for example, is iron that prevents anemia. Another would be zinc, which is a co-factor in over one hundred enzyme reactions. Both of these occur at low concentrations and are recognized as trace metals. In higher doses, they could be toxic to the body or create deficiencies in other trace metals. For example, an overload of zinc may cause a deficiency in copper, which is another trace metal needed by the body.

Human exposure to heavy metals has escalated significantly in the last 50 years as a result of a rapidly developing increase in the use of heavy metals in industrial processes and products.

In the present day, chronic exposure comes from mercury-amalgam dental fillings, chemical residues in processed foods, lead in paint and tap water, chemicals in personal care products (shampoos/hair products, soaps, toothpaste, mouthwash and creams). Unfortunately, there is no avoiding the exposure to toxic chemicals and metals, and high concentration exposure is not essential to create a state of toxicity in the body.

Lead, cadmium, mercury, iron, aluminum and copper are the most frequent causes of hair loss. Other elements such as manganese, chromium, arsenic and titanium may be implicated as well. In addition, lithium and selenium toxicity have been well recorded as contributing agents in hair loss.

Toxic metals normally do not show up in a blood test unless the person is sufficiently toxic. It will, however, show up in your hair or finger nails; especially if the person has been suffering from slow, long term exposure to the heavy metals.

Heavy metals do not move out of your body easily and have a tendency to accumulate in the joints, bones, liver and some metals, such as the unimaginably toxic mercury, can even cross over into your brain. They need to be removed by specific means such as vitamins, chelation therapy, detox clay baths and even your diet. People who suffer with hair in poor condition or hair loss should

consider having their hair tested for toxic metals. It is one of the best ways to understand how the body is being affected and what must be done to correct the problem.

Therapeutic Recommendations: Nutrients

B-Complex-Research has revealed that B vitamins are cofactors in the metabolism of amino acids. In other words, these two groups of nutrients function at their best when taken in concert. Independently both vitamin B-1 and biotin naturally include high amounts of sulfur and help the body absorb adequate quantities of nutritional sulfur.

Although you may well have not heard of biotin, your hair, skin, glands and even your bone marrow comprehend that it exists. To understand why it is important to have biotin to keep your hair healthy, you would need to know how this B vitamin works.

- Nutrient Production- biotin performs with folic acid to change it into a coenzyme.
- Metabolic Structure- biotin aids in the production and change of fatty acids, carbohydrates, and amino acids into energy. It is crucial in the manufacturing of glycogen, the energy panacea—distilled from carbohydrates—accumulated in your liver and muscles.
- Genetic Structure- biotin is also a key component in manufacturing purines, which are an essential nitrogen composite of nucleic acids, in which our genetic matter is held.

By providing your hair with a good B-complex vitamin, you are improving not only the health of your hair, but furnishing your body with good health, high energy levels, less deterioration from stress, and a general state of vitality that only a well nourished body can possess. Keep in mind that all the B vitamins perform together, so it is important to secure to find a B-complex supplement that is in the correct ratios.

Suggested dosage: Take one capsule, three times a day with a meal.

Recommendation: Life Extension Foundation - Complete B Complex

Para-aminobenzoic acid- PABA is a part of folic acid and performs as a coenzyme in the body's metabolism of proteins and assists in the making of healthy blood cells. It unites with folic acid and pantothenic acid to construct a healthy body.

What might be of interest to you however, is the fact that PABA has some unique tasks that apply to hair. A Doctor Frank Evans, who authored the book, *Diseases of Metabolism*, had triumphs in managing hair loss amid a group of dieting woman with PABA. According to Doctor Evans, "Results have been satisfactory and its continued use is recommended".

There has also been some research by Doctor Chris Zarafonitis of Temple University who deduced from his studies that an intake of 6-24 grams of PABA per day for at least 6 weeks re-establishes the natural hair color of 25% of people with noticeably gray hair. He did not hypothesize on the mechanism for hair color re-establishment and pointed out that the results were highly unpredictable and might require extensive periods of use. Unfortunately, another Doctor named Zvak confirmed that the reclaimed color was lost within 3-4 weeks if the intake of PABA was stopped. PABA is water soluble and is expelled quickly in the urine, and therefore to be dispensed in divided doses throughout the day.

Suggested dosage: ¼-1 teaspoon per day, spread out throughout the day with meals.

Caution: High doses of PABA should not be used when taking sulfa antibiotics such as Bactrim or Septra.

Recommendation: Life Extension Foundation - PABA Powder

MSM (methylsulfonylmethane)-Have you ever smelled the overpowering odor of burnt hair? In point of fact, what you smelled was burning sulfur. This is because sulfur is the resilience of the proteins that make up hair. Every time you cut your hair, natural sulfur composites are trimmed away—sulfur your body has to restore in order to grow healthy, shiny new hair.

Sulfur makes up roughly 0.25% of your entire body weight and occurs primarily from the proteins you consume and from the proteins your body manufactures by connecting together various amino acids. The sulfur located in each strand of your hair has been there since the commencement of its life. Every hair started as a tiny sprout within a small opening in your skin called a follicle. At the root of the follicle, capillaries bring nutrients to the bulb, including copious amounts of sulfur which supply the growing hair shaft. Follicle cells then change these nutrients—mainly amino acids—into a hard, waterproof protein called keratin, which is the hair you see on your head. European scientists only just corroborated that these keratin fibers are in actual fact "embedded in a sulfur-rich matrix". You can view the abstract here.

Sulfur is as basic to life as water and air, and yet its value is commonly overlooked. It is the eighth most abundant element in all living

organisms and plays an important role in human nutrition. As a matter of fact, it is an important element in more than 150 compounds in the body—tissues, enzymes, hormones, anti-bodies and antioxidants. Sulfur is stored in every cell of the body—particularly in the hair, nails and connective tissue of the joints and skin. Sulfur is an important structural component of the connective tissue that joins muscles to bones.

What is nature's richest source of sulfur? Answer: MSM

Before the dawn of highly processed modern diets, foods were an important sulfur source. Due to air, soil and water pollution, over-farming, irrigation, and deforestation, our food is severely mineral depleted. It is therefore very important that you replace these minerals—especially sulfur.

The best type of MSM to take are the raw crystals. It is the most bio-available and economical form. It is more economical to take higher dosages of pure crystals for therapeutic benefits rather than tons of capsules. Please make sure that your source is pure and does not have fillers as there are many sub par msm supplements on the market.

Suggested Dosage: Take at least 1-3 level teaspoons per day. For optimal results, build up to at least 2 tablespoons a day. It is best dissolved in warm water and chased down with some juice. You cannot overdose on MSM because the body will take and use whatever it needs, and after 12 hours, flush any excess amounts from the body. You should see results in about 2-3 weeks.

Note: Several other nutrients, such as vitamin C and the trace minerals zinc, copper and silicon are needed in conjunction with MSM for optimal results.

Recommendation: 99.9% Pure OptiMSM Crystals

Silica- Besides oxygen, silica is the most widespread element in the earth's crust. Until a short time ago, silica was not considered to be of physiological importance because most plant and animal tissues contain somewhat small amounts. Additional investigation revealed that silica is present in all soil-grown plants, and on occasion in large concentrations. While only trace amounts are established in the body tissues, research has found that these minute amounts are critical to health. In light of new found studies that demonstrate the important physiological benefit from silica consumption, scientists acknowledge silica need as an essential nutrient.

Due to the importance of silica to structural molecules in the body, the immediate signs of silicon deficiency are frequently manifested in the skin, hair and nails. Skin and hair lose their strength and elasticity and your nails become brittle. Your deficiency in silica could be generated by consumption of a highly refined diet that is low in essential nutrients. In addition, levels of this mineral in the skin are recognized as decreasing with age. The good news is that silica supplementation causes a noticeable improvement. There are even some forms of Alopecia (hair loss) that are caused by insufficient intake of nutrients. In these particular cases, silica can encourage healthy and thick growth of hair. Nine times out of ten, the higher the concentration of silica in skin, hair and nails, the healthier these tissues are.

Suggested Dosage: Take 15-20 drops in 8 ounces of purified water or juice, two times a day. You can also use it after a great workout!

Recommendation: Cellfood's Essential Silica Formula

Therapeutic Recommendations: Herbal

Green Tea (Camellia Sinesis)- Catechins that are in green tea are believed to hinder the enzyme 5-alpha-reductase that changes testosterone into the deterrent, DHT. A considerable intake of green tea is associated with higher levels of sex hormone-binding protein—or globulin, which transports hormones like testosterone through the body in a bound, unusable variety so that tissues cannot use it directly. Testosterone is normally transported through the body by this binding protein, therefore, lowering the levels of free testosterone, so that it would not be transformed to dihydrotestosterone (DHT) in the hair follicle, which is believed to curtail the hair cycle and cause hair loss in men. It is for that reason that researchers deem green tea effective in preventing and treating male pattern baldness.

Suggested dosage: Take one capsule per day with or without food. Please take early in the day if you are affected by caffeine. It may interfere with your sleep.

Recommendation: Life Extension Foundation - Mega Green Tea Extract

Saw Palmetto- Saw Palmetto is an established therapy for benign prostate hyperplasia in men. It seems to work together with various sex hormones, including dihydrotestosterone (DHT). DHT is linked with premature hair loss. Stimulated by androgens, the immune system seeks out hair follicles in genetically susceptible areas and sets off premature hair loss characteristic of male pattern baldness. A broad variety of anti-androgens are employed to prevent or reverse premature hair loss—Saw Palmetto being one. DHT

is manufactured from testosterone by enzyme 5-alpha-reductase. Similar to most enzymes, it may be inhibited.

There has been immense medical interest in therapies that have the possibility for inhibiting 5-alpha-reductase, and in so doing, preventing or treating benign prostate hyperplasia. Saw Palmetto is considered to have a similar method of action to the anti-androgenic drug finasteride (Propecia), which has been utilized in small doses for hair loss.

Suggested dosage: One softgel in the evening with your meal.

Recommendation: Life Extension Foundation - Super Saw Palmetto

Kelp- This is an exceptional source of minerals from the ocean, in particular iodine, which is very critical for the thyroid gland to operate properly. The thyroid gland is a significant regulator of metabolism and weight. The micronutrient significance of kelp completely exceeds those in soil based crops; notably, their trace minerals are in organic varieties the body can quickly absorb and utilize.

Kelp possesses nearly 30 minerals. It is loaded with iodine, calcium, sulphur and silicon. Additionally, it contains phosphorus, iron, sodium, potassium, magnesium, chlorine, copper, zinc, and manganese. Kelp is also plentiful in B-complex vitamins. It also contains vitamin A, C, E, G, the anti-sterility vitamin S and the anti-hemorrhage vitamin K. The bottom line is that kelp not only addresses numerous other problems with the body, but helps to produce thyroid hormones which feed follicles and sebaceous glands on your scalp.

Suggested dosage: Depending upon manufacturer

Recommendation: None

Therapeutic Recommendations: Diet

- **Protein-** protein is compiled of the amino acids needed for the creation of new cells, including hair. Five amino acids are of specific significance to hair growth—lysine, arginine, methionine, cysteine, and cystine. Insufficient protein in your diet over a long period of time may compel hair into the resting phase with shedding a few months later. It is apparent then that adequate portions of protein rich foods must form part of your daily diet. The ideal sources of dietary protein are organic lean meats, mercury-free fresh fish, organic poultry, organic eggs, organic nuts, organic grains and seeds. A minimum of 15% of your daily calories should be derived from protein-rich foods.

- **Carbohydrates-** carbohydrates are a vital source of energy and aid in the development of body tissues, including hair. They are a chief supply of the B vitamins that are imperative to healthy hair. It is crucial that you focus on eating non-refined carbs rather than the sugars and white flour that are so rampant in countless over-refined carbohydrate products. A lot of weight should be placed on eating organic vegetables, organic fruits, and organic whole grains.

- **Dietary Fats-** fat is utilized in the manufacturing of energy and can be located in both animal and plant foods. Your body requires adequate levels of fat to sustain good health. That fat should be acquired from a blend of lean, organic animal and plant sources. Approximately 25-30% of your daily calories should be from these sources.

Therapeutic Recommendations: Physical

Shampoos- Do you ever take the time to read the ingredients on your shampoo label? Now would be an excellent time to start! There are so many chemicals, detergents, artificial colors, preservatives, formaldehyde and synthetic foaming agents on the ingredient list that you wonder whether you are embalming your hair or washing it. Just for starters, the researchers at the National Institutes of Health have uncovered the connection between an ingredient found in shampoos and nervous system damage. The studies were performed with the brain cells of rats and they demonstrate that contact with an ingredient called methylisothiazoline (MIT), causes neurological damage. The huge majority of shampoos contain toxic chemical compounds like MIT that are a factor in cancer, liver disorders, and neurological diseases. It may astound you to know that manufacturers of shampoos and personal care products in general can put virtually any chemical they wish into your shampoo, even if it is a hazardous chemical listed in the Registry of Toxic Effects of Chemical Substances (RTECS) database of toxicity and even if it is deemed a toxic chemical by the Environmental Protection Agency.

The function of shampoo is for cleansing the hair. It is to eliminate excess oil, dirt and debris from the hair known as sebum. An ideal shampoo will execute this function while leaving the hair manageable, while still maintaining its natural luster. Unfortunately, creating foam is what the industry believes is important to the consumer, who without factual information about the functions of a surfactant, takes for granted the shampoo is working and is good for you.

The only solution is to shield you and your family by educating yourself about the shampoo and personal care products that you are using. Read every ingredient on every personal care product label and be wary of every chemical ingredient. Ask yourself if you

would ingest that ingredient, because when you rub products into your hair and skin, 60% of the product could end up absorbed in your body.

Remember that TRUE organic products NEVER include potentially harmful chemical ingredients. They are manufactured from truly holistic and natural ingredients without the use of synthetic chemicals, and will ultimately leave your hair clean and balanced.

Suggested use: All 4 shampoos to be rotated daily

Recommendation: Morrocco Method - The Ultimate in Holistic Haircare

Brushing & Massaging- There seems to be some difference of opinion on this subject, but we will try and enlighten you as best we can. Brushing your hair the old-fashioned way a 100 strokes a day actually depends on the condition of your hair. If your hair is in first-rate form, brushing extracts the oils through and stimulates circulation. Now, if your hair is in weak condition, brushing may break the strands. It is also imperative that you utilize a natural bristle brush rather than synthetic.

The main reason for brushing is the stimulation of the scalp. You can use your fingertips or better yet a scalp massager. In order to do the best job, you would lean your head over to amplify blood flow and start in the top center of the scalp with small rotating movements—moving outward.

Essential Oil Treatments- We spike, color, tease and curl it. We heat, gel, straighten and spray it. We worry and vex over it, spend tons of money on it and cry when we lose it. It's a vital sign of our health, youth and beauty and we want it to look great. I imagine that some of you still believe that if you smother your hair with oil, it will give you the shiny, soft hair that we all desire. Most oil (not all), if they are not essential oils, do not have the capacity to penetrate into the hair shaft. What they will accomplish, however, is to lie on top of the cuticle and smother it. It may give you some short-term luster, but it will also coat the hair and cause product build up. When this happens, the problems begin.

Initially, the moisture that our hair so badly requires will not be able to filter through the wall of product build up. The moisture is consequently not able to unearth the cuticle layer. What is the end result—the hair cannot be conditioned!

In 1998, a study was done by a doctor named Isabelle C. Hay on patients with alopecia areata (sudden hair loss). She used the essential oils of thyme, lavender, rosemary and cedarwood in a carrier oil of jojoba and grapeseed. The 84 volunteers were given a two-minute scalp massage daily with the oils for a period of 7 months. The control group was simply massaged with the carrier oils alone. At the end of the trial, 19 people in the essential oil group had re-grown hair, as opposed to six in the control group.

Oil treatments, that have the appropriate ingredients, and used at least once a week, will enhance the condition of your hair and scalp. The key is to locate products that contain ingredients such as: Jojoba oil, neem oil, avocado oil, cold pressed oil, and evening primrose oil. In addition, essential oils are a must, such as: lavender, rosemary, St. John's Wort, myrrh, frankincense, cedar-wood, juniper and thyme. These are all naturally wonder oils for the hair and can reward you with a silky lustrous shine.

Suggested Dosage: Use weekly. Apply liberally to hair and scalp. Excellent leave in all day or overnight treatment.

Recommendation: Morrocco Method Euro Organic Oil

Detoxification of the Hair & Scalp- We all know that pollutants, chemicals and toxins are all injurious to the immune system. They are also harmful for your hair and scalp as well. It is important to eliminate these impurities and build the immune system, which supplies the first, second and third lines of defense against everyday germs, viruses and bacteria. The chemicals from synthetic shampoos, conditioners, styling products, dyes, perms and hair relaxers tend to accumulate in your hair; not to mention the heavy metals and toxins that we are exposed to on a daily basis. Mercury alone is now linked with over 200 diseases, particularly neurological and behavioral disruptions. It is vital to detox the hair in order to help in removing the cause, not just the symptoms of your hair maladies. Those with a compromised immune system or who are interested in preventing future hair issues should seriously consider detoxing the hair on a regular basis. It is also superb for people who live in hard water areas, swim on a regular basis or people who are exposed to environmental toxins from their job.

Jash Botanicals feels fortunate to have found a company that takes hair and scalp detoxification very seriously and has manufactured a product that is:

- Completely Natural
- Benefits People of All Ages
- Promotes Hair Growth by Its Gentle Detoxification Process
- Lifts Heavy Metals and Other Toxins From the Scalp and Oil Glands
- Cleans the Hair Follicles
- Leaves a Healthy Scalp and Beautiful Hair

Remember, that while immunity can deteriorate with age, the weakening of the immune system is a result of long term exposure to

toxins.

Bottom line—get the accumulated toxins out of your hair and scalp!

Suggested Dosage: Use weekly. Apply liberally to hair and scalp. Excellent leave in all day or overnight treatment.

Recommendation: Morocco Method Zen Detox

Detoxification of the Body- It is essential that you use a product that is natural and effective in assisting you with the job of pulling toxic metals and chemicals out of the body. It is also important that the product do the job without impacting an already compromised system. If the product is natural and not invasive, it will then allow you to incorporate other cleansing and maintenance programs without too many cleansing reactions.

LL's magnetic clay baths assist in pulling out chemicals and heavy metals that have built up in your body from years of exposure to harmful products and environmental toxins. These clay baths are safe and effective in releasing metals such as mercury, arsenic, aluminum, cadmium, environmental toxins, chemicals, radiation, lead, etc. when used as directed and are very inexpensive compared to other treatments that are available. LL's Magnetic Clays are uniquely designed to release specific heavy metals with seven different baths available:

Environmental Detox: This bath is for pollutants, insecticides, pesticides, vaccination poisons, industrial pollution, chemical warfare, and almost all chemicals including food additives, chlorine, etc. Also used for nickel and other metals not covered by the other formulas. Very helpful in radiation and lead detoxification.

Dental/Mercury Detox: This kit is for assisting the clearing of dental/mercury poison from amalgams, fish and vaccinations.

Smokers/Drug Detox: This formula assists in removing toxins found in cigarette smoke (cadmium), tobacco, drugs, medical drugs or recreational drugs, smoke inhalation, etc. It is effective to release toxic substances found in tobacco such as tar, hexavalent chromium, hydrogen cyanide, nicotine, lead and arsenic.

Arsenic Detox: A formula that assists in removing toxins found in pesticides, industrial pollution, water supplies, and also addresses chemical wastes, assists in removing arsenic and arsenic of lead, etc.

Aluminum Detox: This kit helps remove toxic aluminum found in aluminum cans (cola drinks), cookware, aluminum foil, antacids, automotive exhaust, American cheese, milk products, table salt, toothpaste & deodorants. Also assists in releasing chemical residues.

Tox-Away Detox: This kit is a general detox bath to help remove metals.

Clear Out Detox: This is our newest formula and the spices and herbs in this are known for various situations that are present with metal and chemical poisons, such as digestive problems, parasites in the body, depression, etc. This bath also addresses the following metals: lead (lead poisoning), arsenic, mercury and aluminum poisoning. A great bath for a general detoxification.

Many people like to see the results of the bath of the toxins being pulled into the clay from their own body. These can be seen with Clear-Out, Smoker's/Drug Detox and Dental/Mercury Detox. The Tox-Away, Arsenic, Aluminum and Environmental formulas all have activated charcoal (black powder) and one cannot see the results in those formulas but many FEEL the results.

LL's Magnetic Clays are designed to be used under professional supervision as there are many factors surrounding the correct application of the baths. Not sure if you have heavy metals built up in you? Order a personal heavy metal screen test to find out today.

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