

Rationale For Wysong Hair Care Products

Of primary consideration in the development of Wysong Shampoo™, Conditioner™, Shampoo & Conditioner-In-One™ and other Wysong topical products is the fact that the skin is an absorbing organ. This permits utilization of nutrients that can directly feed the skin. But this understanding should also serve as a precaution against using substances that could be detrimental or toxic when absorbed.

HAIR CARE

W Y S O N G

HERBAL ESCAPE™:

For Dry Hair

Shampoo Ingredients: Purified Water, Carbohydrate-Derived Surfactant, Coconut Oil Soap, Xanthan and Acacia Blend, Soapwort Extract, Aloe vera, Hydrolyzed Wheat Protein, Soapbark Extract, Jojoba Oil, Yucca Extract, Essential Oil Blend, Citric Acid, Wysong Citrox™, Vitamin E, Horsetail Extract.

Conditioner Ingredients: Purified Water, Aloe vera, Hydrolyzed Wheat Protein, Xanthan and Acacia Blend, Jojoba Oil, Essential Oil Blend, Grapefruit Seed Extract.

FRESH BLOSSOM™:

For Normal Hair

Shampoo Ingredients: Purified Water, Carbohydrate-Derived Surfactant, Coconut Oil Soap, Xanthan and Acacia Blend, Soapwort Extract, Aloe vera, Hydrolyzed Wheat Protein, Soapbark Extract, Jojoba Oil, Yucca Extract, Essential Oil Blend, Citric Acid, Wysong Citrox™, Lemongrass Extract, Sunflower Extract.

Conditioner Ingredients: Purified Water, Aloe vera, Hydrolyzed Wheat Protein, Xanthan and Acacia Blend, Jojoba Oil, Essential Oil Blend, Vitamin E, Wysong Citrox™.

CITRUS SAVVY™:

For Oily Hair

Shampoo Ingredients: Purified Water, Carbohydrate-Derived Surfactant, Coconut Oil Soap, Xanthan and Acacia Blend, Soapwort Extract, Aloe vera, Hydrolyzed Wheat Protein, Soapbark Extract, Jojoba Oil, Yucca Extract, Essential Oil Blend, Citric Acid, Wysong Citrox™, Burdock Extract, Thyme Extract.

Conditioner Ingredients: Purified Water, Aloe vera, Hydrolyzed Wheat Protein, Xanthan and Acacia Blend, Jojoba Oil, Essential Oil Blend, Grapefruit Seed Extract.

VANILLA MINT™:

For All Hair Types-Shampoo & Conditioner-in-One

Ingredients: Purified Water, Carbohydrate-Derived Surfactant, Coconut Oil Soap, Aloe vera, Jojoba Oil, Xanthan and Acacia Blend, Soapwort Extract, Hydrolyzed Wheat Protein, Soapbark Extract, Vitamin E, Yucca Extract, Essential Oil Blend, Citric Acid, Wysong Citrox™, Lemongrass Extract, Sunflower Extract.



Prevalence of Modern Synthetics

Modern hair care products are comprised of many synthetic components. These chemicals provide specific characteristics intended to contribute to acceptability. Additives include sequestrants, solvents, emulsifiers, thickening agents, opacifiers, pH controls, preservatives, coloring agents, fragrances and many others. With few exceptions, these additives are synthetic, laboratory-derived chemicals. Although these materials are not to be internally ingested, the fact that shampoo and conditioner are meant to be used directly on the skin (scalp) throughout a lifetime should nonetheless be recognized as significant.

The Nature of Skin

The “skin” of simple one-celled organisms is extremely important not only for protection, but also for respiration, alimentation and secretion. Essentially all life processes, and all contact and interaction with the surrounding environment, are affected through this external coat. In multicellular organisms, there is an integument surrounding the cells, which further separates the organism from its environment. In complex organisms such as mammals, the skin is less functional since eating, respiration and elimination are accomplished primarily through specialized organ systems.

But the skin is far from inert. The function of the skin as a barrier has been given far more attention than its function as an absorbing, excreting, and breathing organ. Nevertheless, to one degree or another, skin retains all of the properties of the simplest unicellular organisms. Percutaneous and transepidermal absorption can result in the passage of substances in the form of gases or liquids from outside the body through the entire thickness of the skin, directly into the vascular system. In some cases, this absorption can occur at a rate comparable to or exceeding the digestive tract’s absorption capacity.

The usefulness of the skin as an absorbing medium for drugs and pharmaceuticals has long been recognized by medical science. Among contemporary agents, there is good evidence that certain antibiotics, corticosteroids, sex

hormones and vitamins can pass through the epidermal layer with relative ease. In fact, various systemic medications such as morphine, aspirin, insulin, melatonin, nitroglycerine and testosterone can effectively be administered via transdermal medical-grade silicone topical patches. The feasibility of these medical practices demonstrates the permeable nature of the skin and how certain substances may ultimately affect systemic health when introduced directly to this living layer of tissue.

Although permeability of skin allows for such topical treatments intended to improve health, the skin's absorbent nature can also prove to be a liability to health when irritating or potentially harmful materials are introduced. The scientific literature is filled with reports of frank poisons as well as undesirable pharmacological consequences of cutaneously absorbed materials. For example, a few milliliters of tetraethyl lead, a gasoline additive, placed on the skin may cause

acute lead intoxication within several hours after application. Corticosteroids applied topically can suppress the adrenal gland, resulting in serious adrenocorticoid insufficiency syndromes. Certain pesticides absorbed through the skin of farm workers can induce cancer and other illnesses. Contact with the active resin within the microcapsules of carbonless copy paper can produce acute systemic histaminic reactions. Long-term effects, along with possible consequences of being absorbed through the skin, must be carefully analyzed.

The common measure of the safety of topicals, which involves testing to see whether or not the product is capable of initiating a localized reaction, is far too shortsighted. A thorough appraisal of a cosmetic product, or any topical product for that matter, should be viewed with the same scrutiny as ingestible drugs. Long-term effects, along with the possible consequences of being

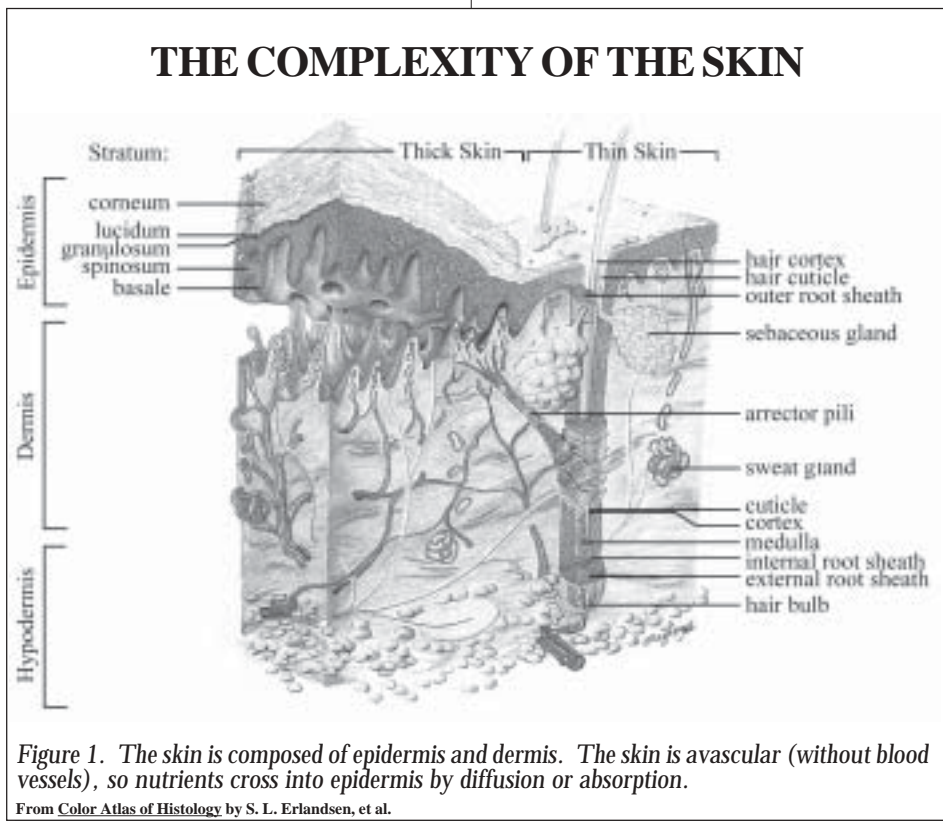
absorbed through the skin, must be carefully analyzed.

Skin Food

While some substances absorbed through the skin can pose known serious health risks, others may serve a positive function, with regard to health. In fact, it has recently been found that nutritional functions can be carried out via the skin. Some essential fatty acids can be directly absorbed to relieve deficiency symptoms. Amino acid precursors to the skin's protective photosensitive pigment, melanin, can cross the barrier to enhance tanning function and protect against the harmful effects of solar radiation. Topical application of tretinoin (Retin-A™) can improve the health and appearance of photoaged skin, and the positive influences of vitamin E can take effect through topical applications. Thus the potential for "feeding" through the skin actually exists when topicals are applied. It is for this reason that the ingredients and processing used for Wysong hair care products are chosen with the same considerations as would be taken in creating a wholesome natural food. (We are not advocating that the products be eaten, however.)

A Pause for Caution

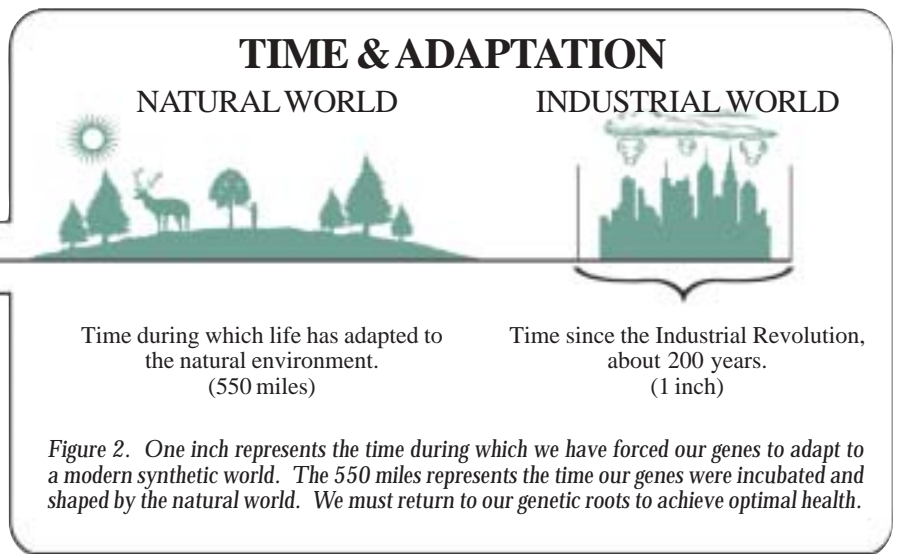
Many widely used synthetic shampoo/conditioner ingredients are foreign to biological experience. Contrary to the popularly held notion that would suggest otherwise, a shampoo/conditioner is not merely something to routinely apply, rinse away and ignore. Regardless of animal testing, a practice which in itself is of questionable scientific value and humaneness, there is currently no way to precisely predict the long-term consequences of using synthetic-based personal care products like shampoo/conditioner. In a National



Academy of Sciences finding, the available data for 84% of all commercial cosmetic ingredients were deemed insufficient to allow for even a partial health assessment. Despite such disturbing data gaps, glossy eye-catching media advertising campaigns only serve to further distract attention away from what shampoo/conditioner product users are entitled to know: does the product contain substances that can irritate the skin, scalp, or eyes and perhaps affect overall long-term health once absorbed through the skin layer of the scalp?

Unfortunately, consumers usually purchase products based upon the hope for cosmetic effect, and do not give enough consideration to safety. In other words, an “*Aloe vera* shampoo” may lead the consumer to believe that the beneficial attributes of *Aloe vera* will be realized, if the product is used, but little consideration is given to the potential long-term health effects of synthetic perfumes, emulsifiers, surfactants, dyes, pH balancers and preservatives that are also present in the shampoo/conditioner.

Not only is the consumer usually unaware of the potential effects of these compounds, but even regulatory agencies do not have the appropriate safety data to prove that these compounds are not dangerous in the long-term. Although manufacturers are required to perform “safety” tests on products and can argue that their products are “safe” and comply with the law, important questions still remain. Such tests are short term and do not adequately allow for bio-individuality. Furthermore, no testing is conducted to determine the effect of the infinite variety of ratios and combinations that can be formulated, as is customary. Since absolutely thorough testing has not been convincingly achieved, we



must be left with some solid ground upon which to make important decisions that may influence health. The most reasonable criterion used in this decision making process is that those substances normal to biological experience (that which is natural in the rightful sense of the word) are more likely to be safe than are synthetic materials.

Wysong Shampoos

Regardless of how well any shampoo/conditioner is able to perform, if the hair is to look and feel its best, one must not lose sight of the fact that beauty on the surface is an accurate reflection of internal health and beauty. Total health and beauty are significantly influenced by a proper diet, exercise and life-style as described in the Wysong Optimal Health Program™. Wysong Shampoos and Conditioners are designed as alternatives to complement these important factors for a more natural approach to living.

Wysong Shampoos and Conditioners are refreshing, gentle hair care products that cleanse and nourish the hair and scalp. They naturally moisturize and condition the hair and scalp without oily residue. The natural ingredients used in Wysong hair care products are mild,

hypo-allergenic and non-irritating for delicate skin.

Wysong shampoos do not sustain high suds volume or foam, which is characteristic of most commercial shampoos. The rich, stable lather exhibits a creamy consistency that may feel uniquely different to some users. It is important to keep in mind, however, that although large amounts of suds can give the illusion of superior cleaning, such high suds volume requires the use of high levels of synthetics and has no actual relationship to cleaning ability.

Wysong hair care products are designed to provide an alternative to existing synthetic shampoos and conditioners, which place more emphasis on cosmetic desirability than on matters of consumer and environmental well-being. This is accomplished by drawing upon a simplified list of natural source ingredients. Wysong hair care products are composed of ingredients that are as close to their natural state as possible.

The improved safety of natural substances in cosmetic applications such as hair care is due to their link to biological history. Although anything (even oxygen and water) can be toxic given a high enough dose, natural

substances are a part of the natural world that is phylogenetically programmed with the genetic makeup of living beings. While not all that is “natural” is harmless, the safety odds are in favor of natural materials. The reason for this is that organisms, including our human bodies, have adapted to the natural environment over eons of time, which has allowed them to develop complex immune and detoxifying systems with the capability to recognize and neutralize most natural substances (see Figure 2). Synthetics, on the other hand, present a surprise of sorts to the metabolic mechanisms and thus may exert a toxic effect unimpeded. Natural compounds are usually detoxified, can exert therapeutic action, and are biodegradable, whereas xenobiotics (substances foreign to biological experience) are often highly toxic, perform a function at the expense of a grocery list of contraindications, and persist for years in the environment.

The Chemistry of Cleansing

The primary function of a shampoo is to clean the hair and scalp. For this to take place, the shampoo must contain at least one particular type of substance classified as a “soap” or “detergent” whose specific chemical structure is responsible for these cleaning properties. Basically, such a substance consists of a chain of 10 to 18 carbon atoms combined with a hydrophilic (water-seeking) group positioned at or near the end of the carbon chain. By contrast, the carbon chain is hydrophobic in behavior, meaning it lacks an affinity for water. Thus, one part of the molecule is water-seeking, the other oil-seeking. This imbalance in polarity within the molecule creates unusual surface activity (hence “surfactant”) and solubility characteristics that explain the molecule’s

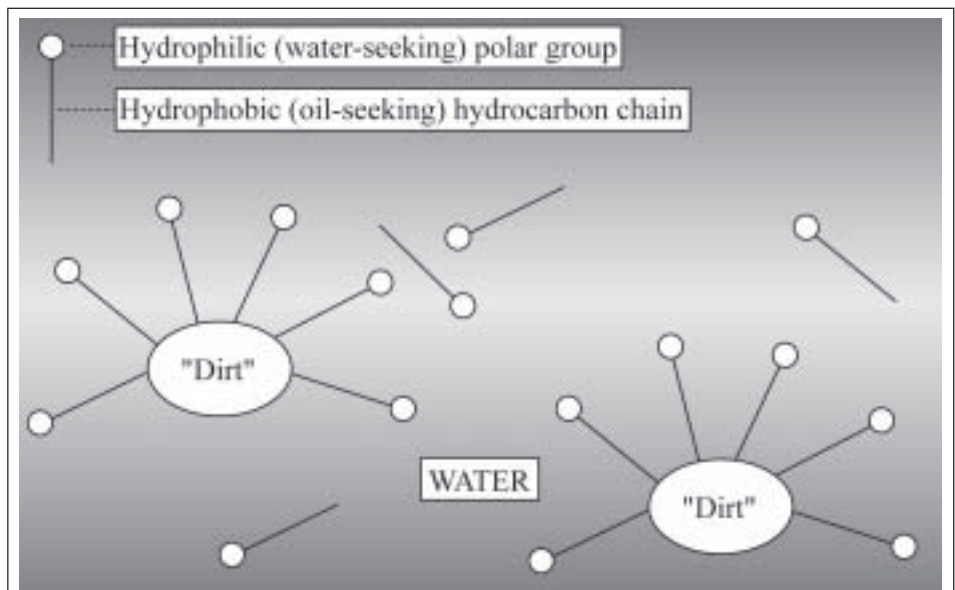


Figure 3. Solubilization process of soap. Soap molecules act upon oily, soil-like material suspended in water. Hydrocarbon chains are attracted to oily inner portions of “dirt” particles with polar groups remaining in solution.

ability to remove unwanted adhesive oils, grime, and epidermal debris from the skin. Due to their specialized molecular structure, these molecules will concentrate and orientate themselves at the oil solution interface. Here, the hydrophobic portion enters the oil (accumulated build-up on the surface of the skin) while the hydrophilic end remains in solution (water). Consequently, this arrangement reduces the interfacial tension so that dirt and oils are actually emulsified, dispersed in water and rinsed away (see Figure 3).

The advantage to using a natural cleansing agent is that dirt and oils can effectively be lifted away without the need for synthetics that merely enhance the sudsing stability and may be absorbed into the body.

How to Use Wysong Hair Care Products

- **Shampoo:** Wysong Shampoos cleanse your hair and scalp with natural, safe components in rich, low-sudsing formulations. These mild formulas consist of natural botanical extracts, essential oils, proteins and

fatty acids that clean and condition without leaving synthetic chemical residues. Additionally, the hair is not stripped by strong irritating detergents or surfactants.

Directions: Shake bottle, then massage directly into the hair until suds develop throughout. Rinse. Repeat if hair is especially soiled. For deep scalp cleansing allow suds to remain 3-5 minutes before rinsing. Follow with a Wysong Conditioner.

The shampoos may also serve as excellent hypoallergenic facial and body cleansers. Simply apply, lather, and rinse.

- **Conditioner:** Wysong Conditioners moisturize your hair and scalp with natural, safe components. These mild formulas consist of natural botanical extracts, essential oils and natural moisturizing oils that condition and detangle without leaving synthetic chemical residues.

Directions: Shake bottle, then massage directly into the hair starting at the ends. Once hair is saturated, rinse.

For increased volume, do not apply to the scalp. For deep conditioning, include scalp and allow to remain 3-5 minutes before rinsing.

- *Shampoo/Conditioner-In-One:* Wysong Shampoo & Conditioner-in-One cleanses and moisturizes your hair and scalp with natural components in a rich, low-sudsing formulation. This mild formula conditions without leaving

synthetic chemical residues. Additionally, the hair is not stripped by strong detergent-like materials or surfactants, which may be potential irritants to the scalp.

Directions: Shake bottle first, then massage directly into the hair until suds develop throughout. Rinse. Repeat if hair is especially soiled. For deep scalp cleansing/moisturizing, allow suds to remain 3-5 minutes before rinsing.

For best results, use one of the Wysong Shampoos and Wysong Conditioners as a part of the Wysong Optimal Health Program, which includes healthy lifestyle choices, whole fresh foods, and healthy alternative products and supplements.

These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.



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