

Radiance – Vital Skin Care from Within

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One of the greatest indicators of a person's physiological age and vitality are the qualities easily observed in their skin. An individual's inner health is clearly evident through a radiant glow and a healthy complexion, since true and sustainable beauty and radiance comes from having optimal health within. Our inner health is the overall result of our nutritional status and the condition of the trillions of cells that make-up our body. It is our skin, the largest living organ in our body, which ultimately 'showcases' a person's level of personal wellness.

Unfortunately, the fact that our skin is one of the best indicators of a person's overall health is not recognized by most Americans. Currently, the trend is to cover-up a lack of inner health through cosmetic surgery. In fact, the number of cosmetic surgeries performed in the US has increased an average of about 40% per year, to well over ten million each year. These millions of annual procedures are performed in an attempt to try to 'correct' for poor diet, lack of exercise, lifestyle errors and even stress.

There are now millions of facelifts, plus Botox and hyaluronic acid injections performed each year, confirming that people are very concerned about what they look like on the outside and would like to remain as young and radiant-looking as possible.

Unfortunately most people do not understand what health care really means and that there is an important point of difference between 'health care' and 'wellness care'. Everyone has some level of health, but not everyone enjoys wellness. It's sad that most people faithfully see their dentist every 6 to 12 months for preventative dental care their entire lives, yet they don't start take care of their hearts and overall health until a crisis looms. Regrettably what the vast majority of people are assuring for themselves is to die prematurely... with a pretty smile.

Your Skin Reflects Your Health

Your skin replaces itself every five weeks, which is why it serves as an accurate and constant indicator of your nutritional and health status. Since the skin is so dynamic and replaces itself so frequently the question must be asked, where are all the building blocks for this natural and ongoing repair job obtained? Of course, this can only be from our diet and nutritional supplementation.

And since the average American is overfed, yet undernourished, it is this overall nutritional deficiency that leads millions of Americans to feel they must superficially cover-up the ravages of their poor diet and lifestyle choices.

As the saying goes... 'garbage in, equals garbage out.' You simply can't look and feel your best, if you have a "crummy diet." And indeed, 'you are what you eat' from your head to your feet. This is why people with poor diets and non-health promoting lifestyles don't exude that glow of health and radiance, and long for younger skin.

For those that own a pet, you know that you can tell a lot about the health of your four-legged companion by the quality of their coat (fur). Likewise, as you walk through a typical day, look at the complexion, color and quality of the skin of your friends, family, business contacts and others you interact with. What is the difference? Is it all genetics? Sure, some people are born with softer or finer skin, however maximizing your genetic factor and your health, takes the right nutrition and lifestyle.

Something as simple as drinking 64 ounces of non-chlorinated water to stay hydrated can help keep your skin more plump to minimize wrinkles and creases, while also helping your skin perform its function of protecting you and detoxifying your body.

Our skin is the largest detoxification organ in the human body. So keeping your skin in optimal health will you look great and also help your entire body stay healthier as well!

Supplementation

Clinically, here are the well-recognized steps to promote optimal skin health:

1. Proper daily hydration – 64 ounces of water.
2. Consumption of a minimum of 5-7 servings of vegetables and fruits per day.
3. Modest exercise.
4. Sleep 7-9 hours a night.
5. Nutritional supplementation.

According to science, the following supplements are vital to establish a strong, healthy foundation for your skin:

- a. Essential Fatty Acids
- b. Sulfur to fuel connective tissue
- c. Nutritional factors

Essential Fatty Acids

It is estimated that only 1 in every 6 North Americans get enough essential fatty acids in their diet. By definition, essential fatty acids are "absolutely essential" to be in the diet since the body cannot manufacture these. A lack of intake means that the body must try to repair and heal itself without a pivotal building block and this would result in a huge deficit, since each and every one of the 50-100 trillion

cells within the body must incorporate fat into its cellular wall. The preferred source of this fat is essential fatty acids. But in their absence, a less favorable oil will be incorporated which could include hydrogenated oils and trans-fats. This would result in less flexible, less resilient and thus more rapidly aging skin cells. This is one reason why skin could begin to sag, wrinkle and become weathered-looking.

Evening primrose oil (EPO), is rich in essential fatty acids and enjoys a rich traditional use for skin health, inflammation control and as an aid for menopause and PMS. EPO is obtained from the seed of *Oenothera biennis*. It contains 2-16% gamma-linolenic acid (GLA), 65-80% linoleic acid, and vitamin E.¹

Evening primrose oil is thought to help for rheumatoid arthritis, eczema, and other inflammatory conditions due its potential anti-inflammatory effects. When it comes to maintaining and sustaining healthy skin, controlling inflammation is a must. GLA appears to be responsible for the anti-inflammatory effects of evening primrose oil. The medical and scientific literature points to the ability of GLA to reduce production of interleukin 1 (IL-1)-beta, which is involved in inflammation that promotes inflammatory diseases. Furthermore, GLA is rapidly metabolized to dihomogammalinolenic acid (DGLA). DGLA is a precursor of the prostaglandin-1 series (PGE1), that inhibits the inflammatory polymorphonuclear leukocyte cells. GLA and DGLA seem to improve the ratio of inflammatory and non-inflammatory prostaglandins and leukotrienes.²

The popularity of using food as a “first approach” medicine is validated in medical literature. For food typically fuels numerous biochemical pathways and thus can help offset multi-biochemical and metabolic deficiencies. For instance, using evening primrose oil for many conditions beyond skin health is evidenced, such as premenstrual syndrome (PMS) that is thought to have lower levels of GLA, possibly due to a defect in the conversion of linoleic acid to GLA. Children with attention deficit-hyperactivity disorder (ADHD) might also have deficiencies in certain essential fatty acids, including DGLA. The reality is that unless the body is fueled properly it will complain either internally or externally.

Sulfur

Our body demands a certain amount of sulfur to maintain its structural integrity. Whether it is your joints, hair, fingernails or skin, you need sulfur to keep your body's shape. Otherwise a less than desirable metamorphosis will occur when gravity (at 32 ft. per second squared) pulls your tissues towards earth. A great clinical source of sulfur is MSM. MSM is a naturally occurring compound found in green plants such as field horsetail (*Equisetum*) certain

types of algae, fruits, vegetables, grains, and both dairy cow and human adrenal glands, milk, and urine.³

MSM is an odorless metabolite of dimethylsulfoxide (DMSO). Important to note is that it is not DMSO, thus any controversy around DMSO does not apply to MSM. Interesting though is that within the body, about 15% of ingested DMSO is converted to MSM. To emphasize the importance of sulfur, one merely needs to look at some of the most popular supplements for connective tissue and collagen health in the market place, such as glucosamine sulfate and chondroitin sulfate. The sulfate portion of these molecules, that denote the sulfur in these supplements are critical in establishing and delivering their therapeutic benefits for joint health. Joints are comprised of the very same types of molecules as the collagen in skin. So, by consuming MSM that is 34 percent sulfur, you are also supporting collagen health that will help provide both healthy skin and healthier joints.

MSM is a rich source of sulfur containing amino acid: cysteine and methionine. MSM-derived sulfur conversion into methionine is regulated by a limiting step involving micro-organisms in the intestinal lumen.⁴

MSM has gained much popularity for its role in protecting against progressive osteoarthritis. The scientific literature points to its role in the inhibition of degenerative changes in joints in osteoarthritis. It also appears that it may confer anti-inflammatory properties as well.⁵

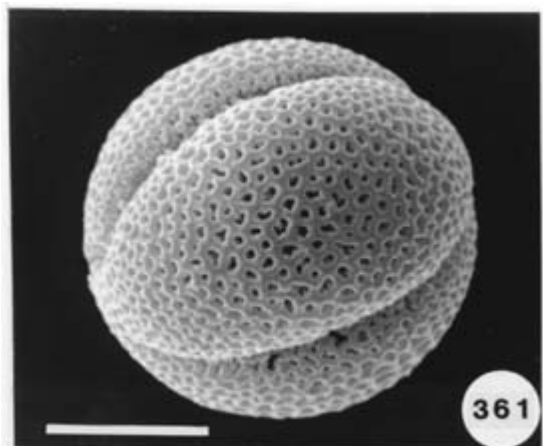
As an extra bonus benefit, MSM appears to serve as a clinical tool to reduce homocysteine levels, by donating methyl groups and thus reducing urine malondialdehyde (MDA) levels. This further means that cholesterol can be protected from becoming even more reactive and damaging to the cardiovascular system. Why is controlling homocysteine and lipid peroxidation important? The answer is simple, elevated homocysteine accelerates the damage to the very microcirculation that is essential to keep the skin well nourished and thus radiantly young and healthy looking.

Brassica rapa

This simple and bountiful plant is so remarkable, it has been studied in outer space. The US Space Shuttle ‘Atlantis’ carried Brassica rapa seeds to the Russian space station Mir. It is because of Brassica's nutritional properties that it was chosen for this important research project. As Dr. Mary Musgrave of Louisiana State University's Agricultural Center stated, “The Brassica rapa plant may be an important source of edible oils, which are difficult to provide in a space-grown diet.” The seeds are high in oil, the leaves can be eaten as greens in a salad and the pollen is of high interest as well. Brassica pollen has long been touted for its ability to provide a rich source of micro-fine protein that can

serve to nourish the body as a whole and has the unique properties of enhancing skin radiance.

Until investigating the medical literature, you may think that pollen is just important to honey bees. Yet, various pollens have been used for thousands of years by human cultures for various medicinal purposes.



Brassica rapa pollen molecules

In the case of Brassica rapa, this plant that flowers from May to August and have their seeds ripen from July to August, possess flowers that are hermaphrodites and must be pollinated by bees.

Unlike normal bee pollen, the Brassica pollen is refined for medicinal use with a proprietary technique that fractures it with ultrasonic sound waves that helps to release the

extraordinary nutrients housed within the pollen shell walls.

It is this cracking of the pollen that releases the highly bio-available nutrients including the natural DNA and vital force that the plant has spent all season building-up and reserving for its reproductive phase. Just as a chicken egg is full of protein, vitamins and minerals, this high-tech cracked pollen provides upwards of 30 percent protein, natural phytoestrogens and other highly health supportive bio-available nutrients.

Summary

The average North America diet is void of many important health-promoting nutrients. Therefore strategic supplementation with nutrient-dense raw ingredients is critical for building strong connective tissue such as collagen; for providing supple, soft and resilient skin; and to provide the bio-available micro-nutrients that can enhance the biochemistry of the overall human body and are critical for radiant skin.

All health emanates from within the cells of our bodies. Treating signs and symptoms is virtually taking 'a band-aid approach' to your vital health. Unfortunately band-aids are just temporary fixes, and while they may cover up a defect, the reality is that the same process that led to the initial warning signs of danger still linger and all too often continue unabated in damaging the body further.

Invest in your inner health and your body and your skin will reflect a more youthful and radiant appearance.

¹ Kleijnen J. Evening primrose oil. *BMJ* 1994;309:824-825.

² Morse PF, Horrobin DF, Manku MS, et al. Meta-analysis of placebo-controlled studies of the efficacy of Epogam in the treatment of atopic eczema. Relationship between plasma essential fatty acid changes and clinical response. *Br J Dermatol* 1989;121:75-90.

³ Barrager E, Veltmann JR Jr, Schauss AG, Schiller RN. A multicentered, open-label trial on the safety and efficacy of methylsulfonylmethane in the treatment of seasonal allergic rhinitis. *J Altern Complement Med* 2002;8:167-73.

⁴ Richmond VL. Incorporation of methylsulfonylmethane sulfur into guinea pig serum proteins. *Life Sci* 1986;39:263-8.

⁵ Kim LS, Axelrod LJ, Howard P, et al. Efficacy of methylsulfonylmethane (MSM) in osteoarthritis pain of the knee: a pilot clinical trial. *Osteoarthritis Cartilage* 2006;14:286-94.

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