

Dr. Michael Janson's

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In This Issue

- Proof or Evidence? 1
- Summer Skin Protection 2
- Skin Preventive Medicine 2
- Supplements for The Skin 3
- Birth Defects, Zinc and Folate 3
- References 3
- In The Health News 4
- Diet and Disease 4
- Chick Peas and Rice 4

Dear Friends,

Why am I continually surprised when medical doctors make unfounded, ignorant claims about dietary supplements or alternatives in medicine? The latest example is from a group of so-called "aging experts" from the International Longevity Center, based in New York, in a critique of another anti-aging medical organization (they complain that doctors make a living doing alternative medicine, as if they don't with their treatments).

One of the doctors was quoted as saying, "Antioxidants have never been proven to be of any clinical benefit for any illness, ever," which begs the question, "what constitutes proof?" since there is a lot of evidence. It is almost impossible to "prove" anything in the biological sciences to a degree that would satisfy the most resistant skeptic, but we have to make decisions about health care based on the best evidence of the moment, not "proof."

Physicians make recommendations every day based on their interpretation of medical science, and the best experts come up with different opinions. I attend a clinical conference on some Friday afternoons, with some of the best cardiologists in the Boston area. They present cases and ask each other about what course of action to take. They often come up with three, four, or even five different ways to manage a patient. The physician in

charge must decide how to manage the medical condition, considering all of the opinions. And whether or not the experts come to a consensus, the patient needs treatment.

Is this science? Is this art? No, this is a combination: applying the art of medicine to the best information that science has to offer. To ask anti-aging doctors to live up to a higher standard of "proof" is unwarranted and biased. Right now, the best evidence that we have suggests that lifestyle, diet, dietary supplements (yes, including antioxidants!), exercise, stress management, and many unconventional treatments are valuable in the prevention, management, and treatment of a variety of conditions. I point them out in every issue of this newsletter.

Would I like more proof? Of course! Just as I would like more proof of any conventional medical treatments (which are often far more risky but not more scientific). However, we cannot wait for perfect proof before we try to help our patients. We are limited by uncertainty, but not incapacitated by it.

It is unwise to exclude any of the potential benefits from what is called alternative medicine, complementary medicine, nutritional medicine, anti-aging medicine, or simply "good medicine," (with or without conventional treatments). Doctors who do so mistreat their patients, and they misunderstand the value of medical science. They also diminish themselves. Everyone suffers when such bias and ignorance remove the potential benefits of comprehensive health care.

Summer Skin Protection (and More)

It is now no secret that skin is readily damaged by excessive exposure to the sun or other sources of ultraviolet light (such as tanning booths). Sunscreen can protect the skin, but this may not be adequate during prolonged exposure, and many sunscreens contain harmful chemicals.

When I grew up we spent summers at the New Jersey shore, getting very tanned playing on the beach, swimming, and spending virtually all day outdoors, and no one knew of sunscreen. The risks of sun damage were little known 50 years ago.

While some sun exposure is needed for production of vitamin D in the skin, and light received through the eyes stimulates the pineal gland to help regulate the body clock, sun worship leads to significant tissue damage. It also puts you at an increased risk of developing skin cancer.

Skin cancer is increasingly common, and it occurs in three forms, depending on the affected cells. The superficial layer of skin, or epidermis, is made up of the outermost squamous cells, the basal cells just beneath them, and the pigment cells, called melanocytes. The dangerous kinds of cancer are squamous cell cancer and melanoma. Basal cell cancers only rarely metastasize, but they can grow locally.

Most of these tumors appear only on areas of the skin that are exposed to the sun, so the correlation is quite clear. Ultraviolet light leads to free radical damage to the superficial cells that are most exposed. This results in premature aging and wrinkles from protein cross linkages in collagen, and is the likely cause of the cancers.

You need to be very cautious to avoid excessive exposure. Even tanning is an indication of damage, so you should avoid the sun in the middle of the day. When you are out, wear lightweight but opaque clothing, stay in the shade, and use sunscreen with SPF 15 protection. While this can help prevent squamous cell cancer, it is not clear that it protects against melanoma. By all means, avoid tanning booths.

Other Skin Preventive Medicine

Protecting the skin is important not only for itself, but the skin is a visible model for how to slow down the aging process and prevent free-radical diseases in general. Some skin creams

contain antioxidants, such as vitamin C, proanthocyanidins, and coenzyme Q10. However, other than vitamins C and E, which do help protect against ultraviolet light, it is not clear that others are beneficial when applied topically.

A better idea is to protect yourself from free radical damage by eating a diet with protective nutrients and taking supplements that are known to offer protection. These have been shown to lower the incidence of various cancers.

Choose a diet that is rich in fruits and vegetables. These are high in vitamins and minerals, and they contain lots of flavonoids, carotenoids, and protective phytochemicals—antioxidants that protect us against free radical damage and cancer, and maintain healthy and supple skin.

Avoid hydrogenated oils (margarine and shortenings), as they interfere with immune function and disrupt the normal prostaglandin metabolism. Prostaglandins regulate many different physiological functions. The best oils are from seeds, nuts, beans, and cold-water fish (as part of a healthy variety of foods). You also find oils in some whole grains and a few vegetables, such as avocados.

Supplements for The Skin

Most of the antioxidant supplements that I have talked about so much are valuable in protection against the damage from ultraviolet exposure. These include vitamin C (2000 to 4000 mg daily), vitamin E (400 to 800 IU), coenzyme Q10 (100 to 200 mg), selenium 100 to 200 mcg, proanthocyanidins (50 to 100 mg), and other bioflavonoids (1000 to 2000 mg).

These also happen to be the ones that protect against premature aging of tissues, including the skin, by preventing the cross-linking of protein. The benefit is just more apparent in the skin. Sun damage is cumulative, and is likely worsened by other free radical exposure, as is evident in smokers, and on the neck skin of outdoor workers.

In addition to free radical protection, nutrients help to maintain the strength of connective tissue, and youthful looking skin. Vitamin C, flavonoids, and MSM (methyl sulfonyl methane, a sulfur source, 1000 to 2000 mg) are essential for production of strong collagen, and zinc (15 to 30 mg) is essential for elastin, the substance that

helps maintain elasticity of skin. This declines with age, as is evident if you pinch the skin on the back of your hand to form a tent, and let go. It snaps back flat when you are young, but takes its time when you get older.

Adequate omega-3 oil, from flaxseeds, walnuts, and fish, such as sardines or salmon, and gamma-linolenic acid (an omega-6 oil, from borage or evening primrose oil) help to balance the prostaglandins. This does not mean eating a high fat diet, or adding lots of oil to a healthy diet. If you prefer to avoid fish, be sure to select some of the vegetarian sources of omega-3 oils.

Regular exercise helps maintain the enzymes that protect against free radical damage, such as superoxide dismutase (SOD). To produce SOD you need adequate zinc, copper, and manganese. You can certainly do your exercise outdoors, but take precautions against excessive sun exposure.

These are the precautions I have been taking to help protect my skin from the aging process and cancer. If you protect your skin, the chances are high that you will be protecting yourself from aging, cancer, and other age-related diseases.

Birth Defects, Zinc, and Folate

Although the FDA has only recently acknowledged that folic acid (or folate) supplements can prevent birth defects (neural tube defects, or NTD), it has been well known in the medical research for many decades, and even other government agencies suggest folate supplements.

NTD's include spina bifida, a failure of the spine to close, and anencephaly, a failure of the brain to develop. When the spine fails to close, corrective surgery is required, but these children often have multiple abnormalities, and short survival. With anencephaly, there is a failure of the brain to develop, leading to stillbirths or death shortly after birth.

The American Preventive Medical Association and several other parties sued the FDA to allow manufacturers to say on their labels that folate helps prevent birth defects, giving consumers more information. Fortunately for the health of children and freedom of speech, the FDA lost this suit. Before this lawsuit, the FDA insisted that it was better to get folic acid from food, rather than supplements, even though most of the research was done with supplements. It is still a wise idea

to eat foods rich in folate, as they are also rich in many other nutrients. Good food sources of folate are leafy green vegetables, bananas, peas and beans, whole grains, and oranges.

Folate levels in foods do vary, so I recommend supplements. Poor health habits increase the need for folate. Smoking, drinking alcohol, taking birth control pills, and dieting are among the habits that reduce folate in the body.

It is now apparent that in addition to folic acid, zinc is also beneficial in preventing neural tube defects (NTD). Researchers in India have correlated low hair zinc levels in pregnant women with an increased incidence of NTD (the serum levels were not correlated, but the serum is not a reliable way to evaluate zinc levels). Another report shows that maternal zinc supplements help to prevent birth defects.

Other helpful nutrients include vitamin B12 and pantothenic acid, and it is good to have a broad spectrum of nutrients in a comprehensive multi-vitamin-mineral supplement for extra insurance.

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In the Health News

- People at risk of peptic ulcers from low-dose aspirin, appear to have an even higher risk if they also have *Helicobacter pylori* in the stomach. The irritation of the gastric mucosa caused by low-dose aspirin was much worse among those testing positive for the bacteria, which is well known to be associated with increased peptic ulcer disease. (Feldman M, et al., Role of *Helicobacter pylori*...during long term/low dose aspirin therapy... Am J Gastroenterol 2001 Jun;96(6):1751-7) Gastric erosions are seen in one of six people on aspirin, but in 50 percent of people who also have *H. pylori*.

Diet and Disease

- A healthy low-fat diet with supplements of flax seeds can slow the growth of prostate cancers (Demark-Wahnefried W, et al., Pilot study of dietary fat restriction and flaxseed supplementation... Urology 2001 Jul;58(1):47-52). Flaxseeds contain both omega-3 oils, fiber, and lignans, substances that may bind with testosterone and thus slow the growth of prostate cancer. These subjects were instructed in a low fat diet, with less than 20 percent of their calories from fat, and within 5 weeks they had improved, and their cholesterol levels had come down also. The average American diet is well over 30 percent fat (high sugar intake makes this appear low).
- A new report suggests that the risk of MS is much lower on a vegetarian diet, and higher on a diet that contains a lot of saturated fat. (Reuters Health, June 16, 2001). High caloric intake also increased the risk. Even the protein source made a difference. Men and women who ate predominantly vegetable protein had a 60 percent lower risk of MS. They also found that vitamins C, B1 (thiamin), and B2 (riboflavin), and fiber, calcium and potassium were strongly protective.

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Chick Peas and Rice

I use this versatile combination as the foundation for several meals. Pressure cook organic chick peas for 20 minutes and let them cool slowly (or add 5-10 minutes). Cook brown rice using two parts water to one part rice (I use a rice cooker to save effort; follow its directions). I keep these in the fridge and combine them with some pepper, lemon or vinegar, flaxseed or olive oil (or a mixture) and some thyme or oregano as a snack. I also will have them with stir-fried onions, garlic, and mixed vegetables to make a meal. Another choice for the rice is to make a breakfast by warming it with soymilk or Rice Dream, adding raisins, cinnamon, and banana or other fruit. Chick peas can be put in salad, or if you are ambitious you can mash them with garlic, lemon, and tahini to make hummus.

- I see patients at WholeHealth in Arlington, MA. Call 781-641-1901 for an appointment. I also do phone and Email consults.
- Please visit my newly-designed website at www.drjanson.com.
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