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Q&A

Skin Repair
Nutrients that can help speed up wound healing

Q I am 45 years old and plan on having laser skin resurfacing surgery. I know about the standard vitamins like C and E for healing, but can you recommend anything else that might help my skin heal better and faster?

A There are several nutrients that can facilitate burn and wound healing. These nutrients include vitamin C, zinc, copper and vitamin B5. Vitamin B5, which has been demonstrated to speed up wound healing, increases protein synthesis and multiplies the number of repair cells available at the wound site. French researchers concluded that the combination of vitamin B5 and vitamin C had recruited more minerals to the wound areas. These minerals included copper, magnesium and manganese, all which enhance wound repair. Vitamins B5 and C also keep iron from the wound areas, thus enhancing the healing process. Three tablets of Life Extension Mix three times a day provide the vitamin C and other nutrients needed for wound healing; amino acids such as arginine and glutamine also play a role. In clinical studies, arginine has been shown to increase the amount of reparative collagen synthesized at the site of a wound. One study found enhancement of activity of peripheral t-lymphocytes (white blood cells in the bloodstream). A study published in the Journal of Nutrition [May 1998, 128 (5) p797-803] showed that arginine combined with glutamine has beneficial effects on burn patients. The Foundation recommends taking 2000 mg of glutamine along with 10 grams of arginine a day. For more information, please refer to the Wound Healing Protocol.

Q I have a question regarding your new cholesterol-lowering supplement, Policosanol. There is a caution regarding low cholesterol levels. My primary concern has always been low HDL and high triglycerides. I take many supplements, including fish oil, as well as 10 mg of Lipitor, but until recently have been unable to lower my triglycerides into the normal range, let alone the optimal range. Triglycerides remain at 300 to 400 fasting level, even with a cholesterol reading of 150. Recently, for the first time in years, I have been able to get my triglycerides below 199, but only by lowering my cholesterol to 125! HDL levels are now 35, whereas they had been 28 to 30. I am uncertain how I accomplished this-the only new supplements I added were a fruit extract and a blueberry extract. In any case, I am concerned because your opinion seems to be that very low cholesterol levels are dangerous in and of themselves. The question is, which is the greater risk factor: high triglycerides levels or low cholesterol?

A In order to reduce your risk of a heart attack or stroke, cholesterol levels should be between 180 and 200 mg/dL; cholesterol levels that are too low can be lethal. A recent study from the Journal of Clinical Laboratory Research [2000; 30(3): 141-145] stated "The lipid profile in cancer patients is characterized by low low-density lipoprotein-cholesterol, low high-density lipoprotein-cholesterol and relatively high serum triglycerides." In addition, epidemiological studies of hemorrhagic stroke from the University of Minnesota indicate an increased risk at lower levels of blood cholesterol. However, high triglycerides could pose a problem also. High triglycerides levels alone do not cause atherosclerosis. But lipoproteins that are rich in triglycerides also contain cholesterol, causing atherosclerosis in many people with high triglycerides. Although Policosanol will not reduce triglycerides, there are several supplements that could help lower triglycerides while raising HDL. Studies show that niacin (B3) in doses of 1.5 grams to 3 grams lower triglycerides levels and raise HDL concentrations. Those who tolerated higher doses of niacin (nicotinic acid) showed even more improvement in lipid levels. Some people taking just 1000 mg of flush-free niacin see an elevation in beneficial HDL. Green tea also has been shown to elevate levels of HDL while lowering serum triglyceride levels. In the Journal of Molecular Cell Biochemistry, curcumin has been demonstrated, in vivo, to decrease triglycerides and increase HDL. In a study published in 1989 by the Journal of Associated Physicians-India, 125 patients receiving gugulipid showed a drop of 16.8% in triglycerides, and a 60% increase in HDL cholesterol within three to four weeks. Make sure you are taking at least six Mega EPA fish oil capsules daily, as low dose fish oil may not adequately suppress triglycerides. Finally, there are some lifestyle changes you may wish to consider. If you are overweight, weight loss would be recommended, as it would help to lower triglycerides and raise HDL. Also, try reducing carbohydrates, which can raise triglycerides.

Q I am currently taking EDTA orally for general chelating and cleansing of arteries and veins, and am considering adding alpha lipoic acid to my regimen. Would the continuance of the EDTA be redundant, considering the chelating properties of alpha lipoic acid?

A No, this would not be redundant; in fact, it would be synergistic. Besides being a potent antioxidant with metal-chelating activity, alpha lipoic acid reduces glycation and inhibits protein oxidation, which lead to atherosclerosis and have been implicated in heart disease.

Q What constitutes a glycation-reduced diet? I have a cataract and would like to try reducing glycation in my body.

A Glycation of proteins has been shown to play a prominent role in the development of many diseases related to diabetes, atherosclerosis and cataract formation. Glycation also occurs as a result of general aging. A glycation reduction diet would be one that is low in simple sugars and carbohydrates. There are also certain supplements that help reduce glycation, such as carnosine. Carnosine is the most effective natural anti-glycating agent. Studies have shown that carnosine inhibits protein glycation and advanced glycation end product (AGE) formation, [Quinn PJ et al., 1992; Hipkiss AR, Preston JE et al., 1998]. Other supplements include alpha lipoic acid, chromium picolinate and calcium pyruvate. There is also a drug called aminoguanidine that can be purchased overseas. Another factor in the development of cataracts is free radical damage to the eye. Researchers at Brigham and Women's Hospital, Harvard Medical School, stated that free radicals might play an important role in the development of cataracts. Free radicals destroy the energy-producing system of the eye and allow leakage of sodium into the lens. Water follows the sodium, and the first phase of the cataract begins. Taking antioxidants can help. These supplements include melatonin, N-acetyl-cysteine (NAC), vitamin C and bioflavonoids. For more information and dosage recommendation, please see Life Extension's Cataract Protocol.

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