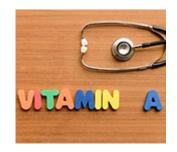
Twin nutrients for great health: Vitamin A and beta-carotene



This article originally appeared on Dr. Teitelbaum's website, Vitality 101.

Two nutrients that do amazing things to help protect your long-term health are vitamin A and beta-carotene. Studies suggest that these "twin nutrients" may help protect you from risks of eye and autoimmune diseases, help strengthen your bones, help keep your memory sharp as you age, help keep your skin smooth — and much more!

I call beta-carotene the "twin" of vitamin A because it's a plant pigment that transforms into vitamin A when consumed into your body.



Vitamin A is found mainly in dairy products, eggs, fish, fish oils and meats (particularly liver). Good sources of beta-carotene include colorful foods like carrots, sweet potatoes, spinach, apricots, cantaloupe, papaya, red and green peppers, peas, broccoli, and leafy greens.

But as with vitamin E (which I discussed last week), taking too much of these two nutrients can be bad for you. Birth defects can occur when pregnant women take more than 8,000 IU of vitamin A a day. Liver damage can occur by taking long-term doses of more than 50,000 IU a day. Similarly, a daily intake of 25,000 IU or higher of beta-carotene may increase the risk of cancer (though lower doses may be protective, as you'll read about in a moment).

Bottom line with both these nutrients: The right dose is helpful. Too-high doses are not.

What I call my RDH (my "Recommendation for Daily Healing") is a daily intake of 2,250 IU of vitamin A and 2,250 IU of betacarotene. (As a side note, these are the amounts I included in my formulation of the Energy Revitalization System vitamin powder. I also included 15 mg of zinc, as zinc is essential to proper function of vitamin A and your immune system.)

Twin Nutrients for "A+" Health

Recent scientific research suggests that both vitamin A and beta-carotene are A-list nutrients for better health. Let's go through the list.

Autoimmune Disease: May Help Prevent Hypothyroidism

A study in the Journal of the American College of Nutrition showed that taking vitamin A supplements may reduce the risk of developing hypothyroidism, a type of autoimmune disease. [1] In a similar study, the authors concluded that vitamin A "is capable of regulating the immune system and possibly reducing the risk of autoimmune disease." [2]

Bones: More Beta-Carotene May Mean Fewer Fractures

People with higher blood levels of beta-carotene have a 15% lower risk of breaking a bone, according to an eight-year study by Australian researchers. [3] Possible reason: less bone-eroding inflammation.

Cancer: May Improve Your Odds of Staying Cancer-Free

Studies show that people with higher intakes of beta-carotene have a lower risk of several cancers, including breast (38% lower risk) [4] and bladder (49% lower) [5]. And in an 11-year study of more than 150,000 post-menopausal women, those with the highest intake of vitamin A from food and supplements had 31% less risk of developing non-Hodgkin's Lymphoma. [6]

Hepatitis C: Vitamin A Deficiency May Undercut Treatment

People with the liver disease hepatitis C who are deficient in vitamin A have poorer response to antiviral therapy for the illness, report Italian researchers. [7]

Lungs: Breathe Easier

Higher blood levels of beta-carotene were linked to healthier lungs (more lung capacity; stronger exhalation) in a 20-year study from researchers at the University of Minnesota. [8]

Memory: Colorful Fruits and Veggies May Mean Better Memory

In a 15-year study by French researchers of nearly 3,000 middle-aged people, those who ate more orange- and green-colored fruits and vegetables rich in beta-carotene had better

Skin: Fewer Wrinkles, Faster Healing

A study from Korean researchers showed that women 50 and older who took a daily beta-carotene supplement for three months had "improved facial wrinkles and elasticity." [10] And in a study from Germany, trauma patients who took an antioxidant supplement (vitamin C, vitamin E, beta-carotene, zinc and selenium) had faster wound healing. [11]

Vision: May Help Prevent ARMD

The leading cause of poor vision among people 50 and over, AMRD (Age-Rrelated Macular Degeneration) damages the *macula*, the part of the eye responsible for sharp, focused vision. But when people in the early stages of AMRD took a supplement containing beta-carotene (with other antioxidants), they reduced their risk of developing the advanced, vision-robbing form of ARMD by 34%. [12] In another study, a beta-carotene supplement improved vision in people with retinitis pigmentosa, a genetic eye disease that leads to blindness. [13]

References

- [1] Farhangi MA, et al. The effect of vitamin A supplementation on thyroid function in premenopausal women. *Journal of the American College of Nutrition*, 2012 Aug;31(4):268-74.
- [2] Farhangi MA, et al. Vitamin A supplementation and serum Th1- and Th2-associated cytokine response in women. *Journal of the American College of Nutrition*, 2013;32(4):280-5.
- [3] Ambrosini GL, et al. Plasma retinol and total carotenes and fracture risk after long-term supplementation with high doses of retinol. *Nutrition*, 2014 May; 30(5):551-6.

- [4] Wang L, et al. Specific carotenoid intake is inversely associated with the risk of breast cancer among Chinese women. *British Journal of Nutrition*, 2014 May;111(9):1686-95.
- [5] Ross MM, et al. Plasma carotenoids and vitamin C concentrations and risk of urothelial cell carcinoma in the European Prospective Investigation into Cancer and Nutrition. *American Journal of Clinical Nutrition*, 2012 Oct;96(4):902-10.
- [6] Kabat GC, et al. Intake of antioxidant nutrients and risk of non-Hodgkin's Lymphoma in the Women's Health Initiative. *Nutrition & Cancer*, 2012;64(2):245-54.
- [7] Bitetto D, et al. Vitamin A deficiency is associated with hepatitis C virus chronic infection and with unresponsiveness to interferon-based antiviral therapy. *Hepatology*, 2013 Mar; 57(3):925-33.
- [8] Thyagarajan B, et al. Serum carotenoid concentrations predict lung function evolution in young adults: the Coronary Artery Risk Development in Young Adults (CARDIA) study. *American Journal of Clinical Nutrition*, 2011 Nov; 94(5):1211-8.
- [9] Kesse-Guyot E, at al. Carotenoid-rich dietary patterns during midlife and subsequent cognitive function. British Journal of Nutrition, 2014 Mar 14;111(5):915-23.
- [10] Cho S, et al. Differential effects of low-dose and high-dose beta-carotene supplementation on the signs of photoaging and type I procollagen gene expression in human skin in vivo. Dermatology, 2010;221(2):160-71.
- [11] Blass SC, et al. Time to wound closure in trauma patients with disorders in wound healing is shortened by supplements containing antioxidant micronutrients and glutamine: a PRCT. Clinical Nutrition, 2012 Aug;31(4):469-75.

- [12] Chew EY, et al. Long-term effects of vitamins C and E, beta-carotene, and zinc on age-related macular degeneration: AREDS report no. 35. Ophthalmology, 2013 Aug;120(8):1604-11.
- [13] Rotenstreich Y, et al. Treatment with 9-cis beta-carotene-rich powder in patients with retinitis pigmentosa: a randomized crossover trial. *JAMA Ophthalmology*, 2013 Aug; 131(8):985-92.