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TOPIC OF THE MONTH

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Sunshine and Onions

The SUN has returned :) Do not be afraid of sunshine . . . It is our best source of Vitamin D. We now know Vitamin D plays major roles in our body and its immunity -- especially beneficial at fighting illnesses and cancers.

Just like we are learning more about the human body and health (ex. saturated fat) we also now know that the sun is not our main source of skin cancer (only if you have been severely sun burnt as a child).

Research is pointing to the lack of sun being more of a problem . . . and now some new research showing sun block BLOCKS our VITAMIN D from the sun, and some theories that maybe fluorescent lights might be more of a concern for skin cancer than the sun . . . that or a distortion between our omega-3's and omega-6's could also be causing skin cancer issues, meaning we need more omega-3s in our diet.

And furthermore some new research on the sun and Vitamin D following up our discussion of cholesterol (and saturated fats) and arteries -- Now that we know saturated fat and cholesterol in the foods we eat has nothing to do with the plaque accumulation in our arteries . . . We still have not figured out WHY plaque is accumulating for some people:

Theories are abounding right now . . .

- ☪ Some say the cholesterol is coming to heal inflammation of the arteries
- ☪ Some say the cholesterol is coming to heal little perforations in our arteries (similar to leaky gut syndrome)
- ☪ AND a new one I just came across that may shed some light on this issue, From Dr. Joseph Mercola newsletter Sunday April, 13, 2014: To summarize Dr. Seneff's findings, high LDL appears to be a sign of cholesterol sulfate deficiency. According to Dr. Seneff, your body's way of trying to maintain the correct balance is to take damaged LDL and turn it into plaque. Within this plaque, your blood platelets produce cholesterol sulfate, which your heart and brain needs for optimal function.
 - o Her research also suggests that in order to truly optimize your cholesterol levels, you really need to get your vitamin D from sun exposure, and here's why: when you expose your skin to sunshine, your skin synthesizes vitamin D3 sulfate. This form of vitamin D is water-soluble, unlike oral vitamin D3 supplements, which is unsulfated. The water-soluble form can travel freely in your blood stream, whereas the unsulfated form needs LDL (the so-called "bad" cholesterol) as a vehicle of transport. Dr. Seneff suspects that the simple oral non-sulfated form of vitamin D likely will not provide the same benefits as the vitamin D created in your skin from sun exposure, as it cannot be converted to vitamin D sulfate.

If you're still under the mistaken impression that sun exposure is the primary cause of skin cancer, the following explanation may be of great help. Dr. Seneff states that:



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- o "Both cholesterol and sulfur afford protection in the skin from radiation damage to the cell's DNA, the kind of damage that can lead to skin cancer. Cholesterol and sulfur become oxidized upon exposure to the high frequency rays in sunlight, thus acting as antioxidants to 'take the heat,' so to speak. Oxidation of cholesterol is the first step in the process by which cholesterol transforms itself into vitamin D3."
- o Additionally, distorted omega-3 to omega-6 ratios play a major role in the development of skin cancers too. In 2001, the National Academy of Sciences published a comprehensive review¹³ showing that the omega 6:3 ratio was the key to preventing skin cancer development. An Australian study¹⁴ published in 1993 showed a 40 percent reduction in melanoma for those who were eating fish, which is rich in omega-3s. And this was without any attention to lowering omega-6 fats. Omega-3 and omega-6 fats are both essential for human health. However, the typical American consumes far too many omega-6 fats in their diet while consuming very low levels of omega-3. While the ideal ratio of omega-6 to omega-3 fats is 1:1, our ratio of omega-6 to omega-3 averages from 20:1 to 50:1.

In summary, your body's way to compensate for not having enough cholesterol sulfate is to make plaque -- cholesterol sulfate is made in large amounts in your skin when you are in the sun.

Cholesterol sulfate is important for optimal heart and brain function. When you lack sun exposure and your body can not make cholesterol sulfate your body employs another method to increase it. It does this by taking damaged LDL and turning it into plaque. Within the plaque your blood platelets separate out the HDL from the LDL. The HDL goes on to make cholesterol sulfate, while the LDL ends up being a waste product that lies in your arteries.

How easy it is to bring this into balance! Get sunlight most everyday you can! 15-20 minutes per day seems to be adequate for most, but personally I like more than that :)

Dr. Seneff says:

"In this way, your skin will produce cholesterol sulfate, which will then flow freely through the blood— not packaged up inside LDL—and therefore your liver doesn't have to make so much LDL. So the LDL goes down. In fact...there is a complete inverse relationship between sunlight and cardiovascular disease – the more sunlight, the less cardiovascular disease."

Vitamin D Also Plays a Role in Alzheimer's Prevention -- as mentioned above both your heart and brain need cholesterol sulfate:

Your brain function, as your heart health, is also dependent on both appropriate amounts of cholesterol and healthy vitamin D levels — a fact that again ties heart and brain health together. A recent article in the *Daily Herald*,¹¹ written by Dr. Patrick B. Massey, MD, Ph.D., medical director for complementary and alternative medicine at Alexian Brothers Hospital Network, discusses the importance of vitamin D for the prevention of Alzheimer's disease.

"Not by coincidence, vitamin D deficiency exists in 70-90 percent of patients diagnosed with Alzheimer's disease," he writes. 'Medical studies have demonstrated that increased vitamin D levels either through sun exposure or supplementation improves cognitive function in the elderly. These



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positive results have been seen in those diagnosed with Alzheimer's disease as well as those who do not have this illness.

According to Dr. Seneff, insufficient fat and cholesterol in your brain play a critical role in the disease process, and she makes a compelling case for how statin drugs promote the disease. For more in-depth information about this, please refer to Dr. Seneff's MIT paper, "APOE-4: The Clue to Why Low Fat Diet and Statins May Cause Alzheimer's."[12](#)

Tying It All Together

Lack of sun exposure → cholesterol sulfate deficiency → plaque formation (to produce cholesterol sulfate that protects your heart) → cardiovascular disease (which places you at greater risk for decreased brain function)

Furthermore, processed foods interfere with our production of cholesterol sulfate:

High fructose consumption → over-taxed liver → impaired cholesterol formation → cholesterol deficiency → plaque formation to compensate for cholesterol sulfate deficiency → cardiovascular disease

- 1 [Anticancer Research March 2014: 34\(3\); 1163-1166](#)
- 2 [UC San Diego Health System Press Release March 6, 2014](#)
- 3 [Time Magazine March 7, 2014](#)
- 4 [American Live Wire March 7, 2014](#)
- 5 [UC San Diego Health System Press Release March 6, 2014](#)
- 6 [UC San Diego Health System Press Release March 6, 2014](#)
- 7 [Anticancer Research February 2011: 31\(2\); 607-611](#)
- 8 [UC San Diego Health System Press Release March 6, 2014](#)
- 9 [American Journal of Preventive Medicine March 2007: 32\(3\); 210-216](#)
- 10 [Menopause March 2014 \[Epub ahead of print\]](#)
- 11 [New York Times March 13, 2014](#)
- 12 [Menopause March 2014 \[Epub ahead of print\]](#)
- 13 [PNAS June 19, 2001: 98\(13\); 7510-7515](#)
- 14 [Annals of Epidemiology 1993 May;3\(3\):235-8](#)
- 15 [FASEB Journal February 20, 2014 \[Epub ahead of print\] \(PDF\)](#)
- 16 [Children's Hospital Oakland Research Institute February 26, 2014 Press release](#)
- 17 [Newswise March 10, 2014](#)
- 18 [Vitamin D Council, Vitamin D and Autism](#)



ONIONS

This humble vegetable is a member of the Allium genus, making it closely related to other superfoods like garlic, leeks, scallions, and chives.

Every Sunday night my Dad and I used to share a big bowl of chopped onions with bleu cheese . . . My Dad would say, “we will never get a cold since we eat good onion.” Spring is onion time, with the higher prevalence of colds and allergies this time of year, onions come to our rescue.

As one of the oldest cultivated plants, onions do not disappoint in terms of nutrition. They’re a very good source of vitamins C and B6, iron, folate, and potassium. But it’s their phytochemicals – including the flavonoid quercetin and allyl disulphide – that are most exciting to researchers.

Onions are anti-allergic, anti-histaminic, anti-inflammatory, and anti-oxidant. Onions are Polyphenal superstars :)

Polyphenols are plant compounds that prevent disease, have anti-oxidant and anti-aging properties. Onions are a particularly high concentration with more polyphenal activity than garlic, leeks, tomatoes, carrots, and bell peppers.²

Onions are especially high in quercetin. Quercetin is an anti-oxidant that is an antihistamine.³

If you are eating lots of onions :) and you get a cold, in my experience, you will feel the cold germs pass through your body -- but due to the antihistamine effect of the onions you will not get that painful stuffy fluid in your head and sinuses feel. You might feel low energy or lethargic as the cold moves through your system, you just won’t suffer with the other cold symptoms as much.

Quercetin is available in supplement form, but there are a couple of reasons why getting this flavonoid naturally from onions makes more sense:⁴

- ☪ One animal study found that animals received greater protection against oxidative stress when they consumed yellow onion in their diet, as opposed to consuming quercetin extracts.
- ☪ Quercetin is not degraded by low-heat cooking, such as simmering. When preparing a soup with onions, the quercetin will be transferred into the broth of the soup, making onion soup an easy-to-make superfood.

Onions, like most vegetables . . . Also lower cancer risk.

Quercetin also has been shown to decrease tumor initiation, as well as inhibit proliferation of ovarian, breast, and colon cancers.⁶

Onions also have anti-clotting properties, and improve blood lipid profiles . . . The allium and allyl disulphide in onions increases nitric oxide release in our bodies which reduces blood vessel stiffness.

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How much onion we need to eat is unclear but even moderate consumption -- 1 to 7 servings per week has shown benefit. Although a little onion everyday (about 1/2 cup) may be best.

Onions have been eaten by our ancestors since ancient times: 10

3. The onion symbolized “eternity” to Egyptians, who would bury them along with their Pharaohs
3. In India, onions were valued as a diuretic and good for digestion, the heart, the eyes, and the joints
3. During the Middle Ages in Europe, onions were widely consumed and prescribed medicinally for headaches, snakebites, and hair loss
3. Native American Indians used wild onions in cooking as well as in poultices, dyes, and even as toys.

What about your crying eyes? I wouldn't worry about it, I think this is part of the cleansing process. Nature provides what our body needs so onions got the job of clearing out our tear ducts and sinuses :)

Source: [National Onion Association, All About Onions](#)
• [World's Healthiest Foods, Onions](#)

- 1 [J Med Food. 2009 Apr;12\(2\):374-82.](#)
- 2 [World's Healthiest Foods, Onions](#)
- 3 [World's Healthiest Foods, Onions](#)
- 4 [World's Healthiest Foods, Onions](#)
- 5 [Am J Clin Nutr. 2006 Nov;84\(5\):1027-32.](#)
- 6 [National Onion Association, Onions – Phytochemical and Health Properties](#)
- 7 [National Onion Association, Onions – Phytochemical and Health Properties](#)
- 8 [National Onion Association, Onions – Phytochemical and Health Properties](#)
- 9 [National Onion Association, All About Onions, History](#)
- 10 [National Onion Association, All About Onions, History](#)
- 11 [National Onion Association, Consumption](#)
- 12 [National Onion Association, Colors, Sizes, Seasons and Flavors](#)
- 13 [World's Healthiest Foods, Onions](#)