

The Connection Between Decreased LDL Cholesterol And Increased New Cancer Cases Is Explained And A Solution Offered

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The Problem: Statins, a type of LDL cholesterol-lowering drug, were recently shown to have a significant, positive association with newly diagnosed cancer cases. When newly diagnosed cancer cases were correlated with cholesterol reduction, a disturbing significant correspondence was found, and recently published as, "Effect of the Magnitude of Lipid Lowering on Risk of Elevated Liver Enzymes, Rhabdomyolysis, and Cancer, by Alsheikh-Ali, *et al.*, in *Journal of the American College of Cardiology* (Vol. 50, No. 5, 2007, pages 409-418).

Following the adage, "lower is better," intensive LDL cholesterol lowering has been practiced by physicians on their patients throughout America since 1987, with Lovastatin and more recently with a new generation of statins. The editors of the *Journal* stated that no other manuscript had undergone such intense scrutiny and discussion prior to publication. The *Journal's* editors were baffled by lack of a known biological mechanism capable of causing such an unexpected result.

With statin use, the increase in cancer deaths offset (counteract) the lower cardiac mortality associated with lower cholesterol, resulting in a neutral effect of overall mortality. TRANSLATION: With statins, you don't die of a heart attack, instead, you die of cancer. Physicians are asking, "Can we still benefit from statins while protecting our patients from cancer?" The answer is yes, but first we need to understand the cancer/heart disease connection.

Cancer/Heart Disease Connection: Otto Warburg, M.D., Ph.D., is widely recognized as the most significant biochemist of the 20th century. Decades ago, Dr. Warburg demonstrated that a 35% sustained reduction in cellular oxygen causes cancer. His findings were confirmed in 1953 by Goldblatt and Cameron and verified by Malmgren and Flanigan in 1955. Just as sustained insufficient oxygen causes heart disease, lack of oxygen causes cancer, too-but no one in Warburg's time knew how to use this information to prevent either of these diseases.

So we asked what component in LDL cholesterol could be the common link between statins and decreased cellular oxygen? If cancer results from insufficient cellular oxygen and statins decrease cellular oxygen by reducing the oxygen transport mechanism, then it's clear: statins are creating the necessary cellular environment conducive for cancer.

Drawing on physiology and biochemistry, we know that LDL cholesterol is made up of large amounts (up to 80%) of esterified (connected) parent omega-6 linoleic acid (LA) as found in most supermarket and restaurant cooking oils, and used extensively in baked goods, too. LA is an essential fatty acid (EFA) that (by definition) must come from a food source since your body is incapable of producing it. We also know that statins, by design, reduce the amount of cholesterol. Therefore, increasing statin dosage has the direct effect of decreasing parent linoleic acid in all tissues because of the significant prevalence of cholesterol in every one of our 100 trillion cells!

In 1976, an important discovery was made and published (Campbell IM, Crozier DN, Caton RB, "Abnormal fatty acid composition [LA] and impaired oxygen supply in cystic fibrosis patients." *Pediatrics* 1976;57:480-486). It showed that interference with the movement of oxygen could occur at any cell membrane, and cause a 50% oxygen decrease, and that there could be a general reduction in the supply of cellular oxygen throughout the body - cancer could occur in any of a number of cell types or organ systems. With this insight, we can not only explain why cancer can occur, but also (this is fundamental) why it can occur at any site in the body with low cellular

oxygen.

With a shortage of LA or even adulterated LA from food processing (like trans fats) cholesterol combines with oleic acid (your body can make this) instead of the essential parent LA, resulting in a 50% reduction in oxygen transfer - well above Dr. Warburg's 35% cancer-causing cellular oxygen decrease. With statins, a proportion of the entire LDL structure is lowered, which is much worse than a mere substitution of one oxygenating essential fat for another less oxygenating, non-essential fat. Cellular deoxygenation, as a consequence of statin use, could easily be above 50% and directly proportional to the cholesterol decrease.

In heart patients taking statins, the degree of cellular deoxygenation depends on the patient's statin dosage and diet. If the oxygen-transporting LA is dramatically decreased, it is possible that the 35% oxygen deficiency cancer-causing threshold could be breached because that particular patient was already deficient in functional LA. Therefore, lowering LDL without supplementing functional parent LA could result in the patient crossing the cancer-causing threshold. In recent years, it has been discovered how to increase cellular oxygenation; thereby repairing the cancer-causing decreased LA/statin condition. Fortunately, like the CoQ10 supplementation that can be used as an adjunct to statin use, an equally simple solution is available, using supplementation of unadulterated LA. This alleviates the unforeseen effect of statin's increasing the cancer risk. Armed with this knowledge, and implementing the appropriate protocol, cancer does not have to be a consequence of statin use.

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