



LifeExtension®

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AS WE SEE IT

Cardiologists Overlook Lifesaving Discovery

Impressive research published in 2003 indicates that coenzyme Q10 may have broader clinical applications than originally identified. These new human studies further validate the efficacy of coenzyme Q10 in the adjuvant treatment of cardiovascular disease.¹⁻⁹

In particular, a study of heart attack patients showed that compared to placebo, supplementation with 120 mg a day of coenzyme Q10 reduced secondary cardiac events by 45% and significantly reduced the number of cardiac deaths. Many of these heart-attack patients were prescribed a “statin” drug to lower cholesterol levels. The major adverse effect of statin treatment was fatigue that occurred in 40.8% of the placebo group, whereas only 6.8% of the patients supplemented with coenzyme Q10 experienced fatigue.²



William Faloon

In newly published findings over the past year, positive results were shown when coenzyme Q10 was tested against disorders including macular degeneration, Parkinson’s disease, viral myocarditis, and hereditary neurodegenerative diseases.¹⁰⁻²¹ Additional studies indicate that coenzyme Q10 deficiency is linked with disorders such as infertility and brain atrophy.²²⁻²³

The Problem With “Statin” Drugs

Massive advertising by drug companies has resulted in millions of Americans taking statin drugs every day. Because consumers are supposed to take these drugs possibly for the rest of their lives, statins have become the most profitable drug class in the world. While statin drugs do lower cholesterol, there is a controversy as to how effective these drugs are in extending overall life span.

Peter H. Langsjoen, MD, is the foremost authority on the use of coenzyme Q10 in the treatment of heart disease. His numerous research studies can be found in the world’s most prestigious scientific journals.²⁴⁻³²

In 1990, the Proceedings of the National Academy of Science published Dr. Langsjoen's studies on the safety of statin drugs. Dr. Langsjoen explained that the mechanism by which statin drugs lower cholesterol also inhibits the natural biosynthesis of coenzyme Q10 in the liver. Dr. Langsjoen said that he conducted these studies because, "if lovastatin were to reduce levels of coenzyme Q10, this reduction would constitute a new risk of cardiac disease, since it is established that coenzyme Q10 is indispensable for cardiac function." Dr. Langsjoen then reported that his animal and human studies showed that lovastatin does indeed lower levels of coenzyme Q10.³⁰ Dr. Langsjoen went on to describe case histories of his lovastatin patients who suffered from progressive cardiac degeneration, but whose heart function improved after oral administration of coenzyme Q10.



Julian Whitaker, MD

Move forward to July 8, 2002, and we find that Dr. Langsjoen has become a vocal critic of statin drugs and has published a new paper titled "Statin-Induced Cardiomyopathy." In an excerpt from this paper, Dr. Langsjoen describes his 17-year experience with statin drugs as follows:

"I have seen a frightening increase in heart failure secondary to statin usage, 'statin cardiomyopathy.' Over the past five years, statins have become more potent, are being prescribed in higher doses, and are being used with reckless abandon in the elderly and in patients with 'normal' cholesterol levels."³³

Dr. Langsjoen attributes these heart failure cases as being caused by "statin-induced coenzyme Q10 depletion" that is preventable if statin drug users supplemented with coenzyme Q10.

The "Forgotten" Merck Patents

Pharmaceutical companies have long been aware that statin drugs can wreak havoc on cardiac patients and that taking coenzyme Q10 along with the statin drug would eliminate these side effects.

The evidence supporting coenzyme Q10 as an antidote to statin drug complications is so clear that in 1989 and in 1990 Merck patented the use of coenzyme Q10 in combination with statin drugs to both prevent and treat these complications. However, Merck has neither exercised these patents nor educated physicians or patients about the necessity of taking coenzyme Q10 along with statin drugs. One of the two Merck patents states that:

"Since Coenzyme Q10...is of benefit in congestive heart failure patients, the combination with HMG-CoA reductase inhibitors (statin drugs) should be of value in such patients who also have the added risk of high cholesterol."³⁴

This patent was filed on behalf of Merck & Co on June 12, 1990. Now, almost 14 years later, most doctors and their patients remain ignorant that those taking statin drugs should also supplement with coenzyme Q10.

Last year, Life Extension made numerous calls to Merck's press and media office to discuss its patent of the statin-coenzyme Q10 combination and why this invention was never brought to market. Unfortunately, we were unable to obtain a response as to why all of this time, money, and research had been undertaken by a leading pharmaceutical company only to let their patents sit in a file cabinet. To this day, few doctors are aware of the coenzyme Q10 depletion problem caused by statin drugs, despite the extensive research undertaken by Merck, Dr. Langsjoen, and others.

Dr. Julian Whitaker Files a Petition Against the FDA

Based on this overwhelming body of evidence, Julian Whitaker, MD, filed a petition against the FDA that meticulously documented the many lethal effects that would occur if patients prescribed statin drugs were not supplemented with 100-200 mg a day of coenzyme Q10. The objective of this petition was to force the FDA to mandate on the package insert that patients taking statin drugs should also take coenzyme Q10.

Dr. Whitaker's Proposed Warning for Statin Drugs

Dr. Whitaker petitioned the FDA to mandate that the following warning be included in the package inserts of all statin drugs, with a big black "Warning" box surrounding the text:

Warning: HMG CoA reductase inhibitors (statin drugs) block the endogenous biosynthesis of an essential cofactor, coenzyme Q10, required for energy production. A deficiency of coenzyme Q10 is associated with impairment of myocardial function, with liver dysfunction and with myopathies (including cardiomyopathy and congestive heart failure). All patients taking HMG CoA reductase inhibitors should therefore be advised to take 100 to 200 mg per day of supplemental coenzyme Q10.³⁵

Dr. Whitaker's petitions state that statins deplete coenzyme Q10 stores in the body and increase congestive heart failure and cardiomyopathy risk. They call on the FDA commissioner to take immediate action to safeguard the millions of statin drug users.

Dr. Whitaker's petition explains that statin drug use may be inducing adverse effects in as many as 575,000 people worldwide. The petitions go on to state that statin drugs work by blocking production of cholesterol and coenzyme Q10 in the same pathway, and that consumption of 100-200 mg per day of coenzyme Q10 can reverse depletion induced by statins.

Dr. Whitaker asserts that most patients and doctors do not realize that statin drugs block the production of coenzyme Q10. Dr. Whitaker went on to describe how coenzyme Q10 has been found to be essential for cellular energy production as well as for the functioning of the heart muscle. According to Dr. Whitaker:

"Statin drugs have proven in clinical trials to deplete coenzyme Q10, the 'sparkplugs' of the human body. Patients who take statin drugs without coenzyme Q10, particularly those with a history of heart disease, are especially prone to developing complications that can have fatal consequences."³⁵

FDA Fails to Protect Statin Users

Dr. Whitaker's meticulously documented petition was filed on May 24, 2002. For the past 20 months, however, the FDA has ignored it. The result is that millions of statin drug users are needlessly being subjected to lethal side effects.

The failure of the FDA to amend the drug package insert to recommend that statin users supplement with coenzyme Q10 is a medical travesty. Since the underlying science is irrefutable, this is a blatant example of large drug companies influencing the FDA into not taking actions that would save lives.

Our opinion as to why drug companies may not want this label change is that it could reduce sales of their statin drugs. After all, if doctors told patients that statin drugs could cause heart muscle degeneration, many cardiac patients would refuse to take this class of drug. There is also an economic issue. Those covered by health insurance often have their prescription drugs subsidized, while government programs provide low-income people with free drugs. If these patients were told they had to buy coenzyme Q10 supplements if they are prescribed a statin drug, many would not be willing or able to bear this extra cost.

Former FDA Commissioner Makes Surprising Admission

Jere Goyan, MD was FDA commissioner from 1979 to 1981. During that era, the FDA exerted totalitarian authority over what Americans were allowed to read about dietary supplements and drugs. According to the FDA at that time, any advertising claim that even implied that a supplement provided a health benefit automatically turned that supplement into an illegal "unapproved new drug."

Dr. Goyan was FDA commissioner when the Life Extension Foundation published its first newsletter in 1980. Even though Life Extension was not selling products, we were cautioned to avoid any relationship with a supplement maker, as that could draw us into a "criminal conspiracy" if we were to publish information about a particular supplement's health benefits.

How times have changed! A consumer uprising resulted in Congress passing several bills that limited the FDA's censorship powers. Federal courts have ruled against the FDA's suppression of health claims based on First Amendment grounds. Back in 1980, the legal consensus was that the First Amendment did not apply to the FDA.

In response to growing reports that drug companies are engaged in all kinds of nefarious behavior that result in consumers being prescribed dangerous drugs, Dr. Goyan was quoted in the Detroit Free Press on November 5, 2003 as stating:

“We as patients have got to raise the questions ourselves and take care of our own selves.”³⁷

Considering the FDA's historically rigid position that American consumers are too stupid to make their own health care choices and therefore need the FDA to “protect” them, this statement by a former FDA commissioner that people have to **“take care of their own selves”** is a revolutionary admission. Too bad so many innocent people had to die because the FDA denied them access to the findings from scientific journals about the disease-prevention benefits of dietary supplements. Consumers back then had a hard time “taking care of their own selves” when the FDA uniformly censored all health claims.

On the flip side, more statin drugs could be sold if there were fewer side effects encountered, such as muscle pain, fatigue, liver toxicity, heart failure, etc. A lot of statin drug prescriptions are not refilled because of side effects, so drug companies may be shortchanging themselves in the long run by not recommending coenzyme Q10 supplementation.

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The fact that the FDA does not mandate this warning on the package insert of statin drugs demonstrates the political nature of the agency's decisions. The FDA pretends to be a consumer protection agency, but its actions clearly show that its primary function is to protect the economic interests of the drug industry. Statin drugs cause potentially lethal coenzyme Q10 deficiencies in millions of Americans, but drug company profits are obviously more important to the FDA than saving Americans' lives.

Life Extension has filed a Freedom of Information Act request with the FDA seeking to ascertain the agency's basis for not mandating the simple change to the labeling of statin drugs. Based on past experience, the FDA will ignore our Freedom of Information Act request, even though the law mandates that it respond.

What Makes Life Extension Foundation Different

Drug companies have a simple recipe for economic success. They find a molecule that can be patented, convince the FDA to approve it as a drug, and then market the new drug to physicians and the public. Even if the drug has serious side effects, pharmaceutical companies have been known to relentlessly market these drugs until the patent expires (or until they are forced to recall it).³⁶

The Life Extension Foundation, on the other hand, has a commitment to maintain the health and well being of its members. Few consumers realize the extent to which Life Extension designs products to provide additional ingredients to protect against potential side effects of the active nutrient.

An example of the extra steps that Life Extension takes can be found in the oil-based coenzyme Q10 supplement it offers. While coenzyme Q10 has antioxidant properties, its cellular effect of boosting mitochondrial energy levels may result in the production of excess free radicals. Aging humans suffer from a variety of ailments related to mitochondrial exhaustion, and coenzyme Q10 is one of the most important nutrients to energize aging cells. In order to increase energy production, however, greater amounts of fatty acids have to be burned (oxidized) in the mitochondria. Recognizing that coenzyme Q10 intake could result in the generation of excess free radicals, Life Extension includes the most potent natural antioxidant (the tocotrienols) in the two most popular coenzyme Q10 supplements that it offers.

Tocotrienols are very expensive, but they provide a tremendous degree of natural protection against toxic free radicals. Brain cells produce very high levels of mitochondrial energy, and thus are particularly vulnerable to oxidative stress. The tocotrienols have demonstrated significant protective effects against oxidants (free radicals) that damage neurons. To our knowledge, no commercial supplement company fortifies its coenzyme Q10 with expensive tocotrienols.

The multiple benefits of alpha lipoic acid are well documented and it has become a popular dietary supplement. The only problem with alpha lipoic acid is that when more than 100 mg is consumed, it can compete with biotin and interfere with biotin's activity in the body. Life Extension fortifies its alpha lipoic acid supplements with biotin to make sure that no one suffers a deficiency of this critical nutrient.

Folic acid is recognized by conventional medicine as the best-documented disease-preventing nutrient. There is a small risk that when people supplement with folic acid, it can mask a lethal case of pernicious anemia caused by a vitamin B12 deficiency. Life Extension therefore fortifies all of its folic acid supplements with potent amounts of vitamin B12 to guard against the manifestation of a serious anemic condition.

Chlorophyll is the most effective nutrient to protect against DNA gene mutation, but some people are concerned about the free copper that may occur naturally in chlorophyllin supplements. Life Extension adds a small amount of zinc to its chlorophyllin supplements to reduce the absorption of any free copper that may be present.

Drug companies obviously care little about the longevity of their customers, but a similar analogy can be drawn about commercial vitamin companies that sell supplements without providing added ingredients to guard against potential adverse reactions.

Warning Members of Potential Risks

When it is not possible to add an ingredient to protect against potential side effects of the active nutrients, Life Extension warns members to take additional nutrients to protect against potential adverse effects. For example, it is now clearly established that supplementing with the "alpha" tocopherol form of vitamin E depletes the critically important "gamma" tocopherol fraction. The latest study showed that when a group of human study subjects supplemented with 400 IU of alpha tocopherol daily, there was a 58% reduction in the gamma tocopherol levels in the body after only two months.³⁸

CoQ10 Improves Parkinson's Symptoms and Slows Disease Progression

In a study of Parkinson's disease patients, 360 mg a day of coenzyme Q10 was administered for only 4 weeks and there was a mild symptomatic improvement compared to placebo. More important, an established clinical test to measure Parkinson's symptom function showed significantly better improvement of performance in the coenzyme Q10-supplemented patients compared with the placebo group.¹² This new study helped corroborate a report last year that Parkinson's patients consuming 1200 mg a day of coenzyme Q10 showed a **44% reduction** in the decline of motor skills, movement, and mental function compared to the placebo group. Those receiving this high-dose coenzyme Q10 also demonstrated an improved ability to perform daily living tasks. What was remarkable about this 16-month study was that coenzyme Q10 slowed the progression of the disease, something that Parkinson's drugs do not do.¹³



Researchers at Johns Hopkins University have attributed the conflicting results obtained from cardiovascular and cancer trials using vitamin E to the gamma tocopherol deficit that occurs in response to alpha tocopherol supplementation. The Johns Hopkins researchers point out that gamma tocopherol has disease-preventive benefits and that supplementing with alpha tocopherol by itself may not make scientific sense.

FDA Sought To Ban CoQ10

What is truly ironic is that from 1985 to 1994, the FDA made a concerted effort to completely outlaw coenzyme Q10. One of the FDA's arguments was that because coenzyme Q10 is sold as a prescription drug in Japan, it should not be freely available to Americans as a dietary supplement.

The FDA tried to embargo imports of coenzyme Q10 from Japan and launched criminal investigations against those who promoted it in the United States.

Life Extension's CoQ10 supplements were seized twice (and won back both times in legal actions). The FDA's excuse for the first seizure was that the cardiovascular health claims made by Life Extension turned the coenzyme Q10 into an illegal "drug." During the second seizure, the FDA claimed that coenzyme Q10 was so "dangerous" that it posed an "imminent threat" to the health of the American public. These allegations were of course baseless, and fortunately federal judges eventually saw through the FDA's charade.

The sad facts were that statin drugs (approved by the FDA) were killing Americans by causing lethal coenzyme Q10 deficiencies. Instead of addressing the statin drug issue, the FDA sought to ban CoQ10—the best antidote for statin drug toxicity.

The FDA continues to proclaim that it "protects" the health of Americans by denying "unproven" therapies. The FDA's statements about "protecting" consumers' health may go down in history as one of the greatest medical hoaxes of all time.

It took an enormous amount of effort by health freedom activists to derail the FDA's efforts to deny Americans free access to CoQ10.

Most Foundation members take the Life Extension Mix multinutrient formula, which contains 400 IU of vitamin E (alpha tocopherol succinate). Gamma tocopherol, however, comes only in an oil base and cannot be added to the dry powder Life Extension mixes. Life Extension has repeatedly warned members about the dangers of taking alpha tocopherol without also supplementing with gamma tocopherol.

Because most members who take Life Extension Mix also take Life Extension Booster, gamma tocopherol was added to the Booster many years ago. Members can also obtain gamma tocopherol (and the tocotrienols) in a stand-alone formula.

In the Directory of Life Extension Nutrients and Drugs, numerous warnings are provided for dietary supplements. Commercial supplement companies pretend that there are no side effects to "natural" products and almost never warn about potential risks. Life Extension, on the other hand, has thoroughly reviewed the scientific literature in order to uncover potential problems that may be related to the ingestion of certain dietary supplements. While some people do not buy supplements after reading about potential problems, Life Extension remains vigilant in protecting its members' health, as opposed to selling a product that might cause some individuals harm. Contrast this humanitarian policy with drug companies that do not warn statin drug users of the need to supplement with coenzyme Q10!

The Best Time to Buy Supplements

Long-time Foundation members often stock up on a 12-month supply of supplements each New Year. The combination of the regular member discount, the volume discount, and the Super Sale discount enables members to obtain their supplements at ultra-low prices.

Every once in a while, members will call to say they can buy a particular product from a commercial company for less money. We remind these callers that if Life Extension bought its ingredients from the lowest-priced Chinese suppliers, we too could offer those kinds of prices.

Life Extension purchases its ingredients from top-of-the-line European and Japanese pharmaceutical-grade suppliers. While the cost of these premium ingredients is higher than Chinese materials, we believe the proven biological effects of these pharmaceutical-grade nutrients justify using them. In the majority of cases, the pharmaceutical-grade supplements members obtain from Life Extension are priced lower than cheaper-grade Chinese ingredients that are increasingly saturating the American marketplace.



It is not just the pharmaceutical quality, however, that motivates those serious about their health to use Life Extension supplements. Life Extension has a policy of putting in slightly more active ingredients than what is actually stated on the label. The purpose of this is to guard against any loss of potency that might occur during shipping or longer-term storage. Commercial companies often put in the bare minimum, which can result in 5-10% less potency of the active ingredients.

As mentioned earlier in this article, Life Extension adds important ingredients (such as tocotrienols to coQ10) to deliver a scientifically balanced formula. Commercial companies often have formulation deficits that could result in potential adverse effects.

Unlike any commercial supplement company, Life Extension funds critical research aimed at extending the healthy human life span. Every time you buy a Life Extension product, you contribute to an ambitious scientific project aimed at abolishing human suffering and premature death.

For longer life,

William Faloon.

Note: The 300 mg coenzyme Q10 capsules with perilla oil do not contain tocotrienols. The reason for this is to provide the maximum amount of CoQ10 at the lowest cost for those who need to take very high potencies of CoQ10. Those who use these 300 mg CoQ10 capsules are advised to take other antioxidants, especially the tocotrienols.
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