



# Wellness Minute

Health Information You Can Use On Your Path To Wellness



## CoEnzymeQ10

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With all the different forms of nutrients on the internet, it’s easy to fall prey to marketing hype and misinformation. I mean, I’ve been studying supplements for my whole life, and I still get thrilled when I see some of the cool packaging and marketing campaigns. Let me give you an example of confusing, marketing hype and how to wade through it.

One of the most exciting topics in Wellness or Functional Medicine is the energy factories in our cells called mitochondria. They capture and store energy in energy units called ATP. ATP is then used to repair and rebuild cells. We have hundreds of these little energy factories in every cell. So, when the mitochondria are not functioning at their peak performance, our

ability to repair cells and replenish new cells is decreased. CoEnzymeQ10, which we will just call CoQ, is one of the most important nutrients needed to protect and restore mitochondrial function.

Here’s a classic example of marketing misinformation: What’s the best form of CoQ; ubiquinone or ubiquinol? My discussion may get a little complicated, but stay with me, because you will get the overall picture in a minute. Ubiquinone is the oxidized stable form, meaning it is short one electron, but it’s stable and won’t degenerate. Ubiquinol is a reduced form of CoQ, meaning it has an extra electron. However, it is very unstable and must be supplied as a softgel or a low concentrated micro-encapsu-

lation. CoQ is a fat-soluble substance. Therefore, it must have fats present to be dissolved and absorbed into your system.

The marketing hype is that the body cannot convert ubiquinone to ubiquinol, and that ubiquinol is the best form to use. But that’s not what the scientists that study it say. You see, once in our bodies, ubiquinone converts to ubiquinol and back and forth. COQ has an antioxidant nature as it donates an electron but then the body naturally recharges it. The CoQ molecule is continually adding an electron and then donating that electron, depending on where it is needed. The CoQ molecule gains an electron and forms ubiquinol and loses an electron to form ubiquinone.

This is a transcript from a “video magazine” we send out each week called the Wellness Minute. If you’re not getting our Wellness Minute videos each week, sign up at the front desk.

Here's what COQ experts tell us about COQ as it travels through the body, ubiquinol donates an electron and becomes "oxidized" and converted to ubiquinone in the stomach. Once absorbed into the lymph system, ubiquinone gains an electron and is converted back into ubiquinol. Once in the inner membrane of the mitochondria where energy is made, the oxidized form, ubiquinone is in great demand. So, the reduced form of CoEnzymeQ10, ubiquinol is rapidly converted back to the oxidized, ubiquinone. I think you get the point. It switches between ubiquinone and ubiquinol many times in the body.

Biotics Research is no stranger to the CoQ market, and in fact, was the first company to introduce CoQ10 back in the early 1980s, when it was only available in Japan as a pharmaceutical. Biotics Research produced their own as a concentrated extract from bovine heart tissue. Today, CoQ10 is produced in many countries via chemical synthesis or micro-fermentation. Biotics Research uses only micro-fermented CoQ10 and then uses a second process to micro-emulsify it. They use the ubiquinone form, because it is more cost effective than ubiquinol and is more stable. The emulsified form has been shown to be 3X more bioavailable than the dry form. Biotics' micro-emulsified CoQ-Zyme 100 Plus and CoQ-Zyme 30 contain no soy derivatives, artificial detergents, or chemical surfactants such as polyoxyethylene sorbitan ester also known as Tween 80® or polyethylene glycol; all of which are commonly used in the

food supplement industry to enhance absorption into the blood by making it "water soluble." Biotics' emulsified CoQ is not water soluble, but is micro-emulsified into tiny, microscopic droplets and is water dispersible. The process of micro-emulsification increases the surface area and electro-magnetic field of the oil.

If you think about it, a newborn possesses an incomplete digestive system, yet it is still able to absorb emulsified oil soluble vitamins from its mother's milk. In nature, seed and nut oils are present in an emulsified form, not as liquid oils. Sadly, another consideration is that CoQ is expensive. We can easily find more than one CoQ product that looks like CoQ, is labeled CoQ, but does not meet label claims. There are 2 CoQ supplements by Biotics Research: CoQ-Zyme 30 has 30 mg of CoQ and CoQ-Zyme Plus has 100 mg of COQ and essential B Vitamins to support energy pathways.

I hope you can see that marketing hype is a force that we all must deal with. Your wellness clinician is committed to take time and sort through all the hype to decide which nutrients are best for you. As they make suggestions for nutrients, they try to stick to science and as close to nature as possible. In this case, by recommending micro-emulsifying fat-soluble nutrients and using companies that they have personally researched, like Biotics; supplement companies that have stood the test of time, and they know that they can trust. It takes the guess work out for you.