

# You Are What You Absorb

## Breakthrough Technology Assures Universal Improved CoQ10 Absorption

by Ellen Schutt, Contributing Editor

In today's world, people eat to live and live to eat. The question in both cases, however, is how much of what they are eating is truly absorbed by the body and how much of the nutrient content of the food is actually available to be transformed into energy for supporting basic bodily functions. This question is particularly pertinent in the area of CoenzymeQ10, or CoQ10, a vital nutrient that is notoriously difficult for the human body to absorb. CoQ10 has gained worldwide recognition as an extremely important molecule, one that is found in virtually every cell of the body and is a key factor in the manufacture of ATP, the body's main source of energy. CoQ10 is one of the most studied ingredients in the nutrition world and is utilized in supplements for heart health, brain health, skin health, oral health and sustained energy.

While CoQ10 is naturally produced by the human body, certain factors, such as age and illness, may interfere with the production of this essential coenzyme. Additionally, people with elevated levels of cholesterol or those taking statin drugs are more likely to have reduced levels of CoQ10, which is one of the reasons why mainstream cardiologists are increasingly recommending it to patients. As result of all these issues, many people choose to take this nutrient in supplement form.

But the fact most consumers are not aware of is, on average, only 3 percent of supplemental CoQ10 is absorbed by the body. So in pharmacological terms, CoQ10 has very poor "bioavailability"; the rate and extent to which it is absorbed is extremely low. Factors such as those mentioned above—plus diet, gender or even individual genetic differences—can further influence bioavailability, putting a question mark on whether some people can absorb any CoQ10 at all.

A number of technologies have been developed to improve the bioavailability of CoQ10. These include the use of "solubilized" CoQ10 often found in

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softgels. However, while these approaches help address the bioavailability problem for some people, they have little or no effect on the rest of the population.

Unfortunately, there is no way to know whether you are a good absorber or a poor absorber of CoQ10 without extensive, intrusive testing. And yes, this applies even to those CoQ10 products that claim improved absorption. So the new frontier of research in CoQ10

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absorption has been to find a technology that would ensure absorption in all people, even those who are "poor absorbers" due to their body chemistry, age or state of health.

The good news is that after years of development, a breakthrough technology solution has finally arrived. Microactive® CoQ10 is a new patented form of CoQ10 that has been shown in clinical trials to solve the



uneven CoQ10 absorption problem and assure uniform enhanced absorption for everyone. The same technology has already been proven out with a related dietary nutrient, lutein, which also offers absorption challenges (see the following The Lutein Connection article). Here is how Microactive CoQ10 works. Each molecule of fat-soluble CoQ10 is “bonded” with a molecule of water-soluble beta-cyclodextrin (a natural derivative of starch). This process allows easy transport to the cells, as the beta-cyclodextrin “taxi” transports the CoQ10 easily through the digestive system to the cells and is not dependent upon the amount of fats in the diet. (This is particularly important for people on low-fat diets.)

The patented proprietary MicroActive technology also reduces the particle size significantly so it easily penetrates the cells and, in addition, the betacyclodextrin CoQ10 combination produces a sustained release so that even if the efficiency of the digestive system varies, CoQ10 is still absorbed. There is further evidence that it is the sustained release component of Micro

Active CoQ10 that allows the person’s digestive system time to maximize absorption, providing the “universal absorption” claim.

Four clinical studies have concluded that MicroActive CoQ10 is three times better absorbed than regular (crystalline) CoQ10, two times better absorbed than solubilized (“improved bioavailability”) ...CoQ10 softgels, and delivers sustained release over 24 hours.

Uniform absorption was found in both 24-hour and three-weeks studies. For example, 100 percent of a group taking the MicroActive CoQ10 form doubled their CoQ10 levels after three weeks, while only 43 percent of the group taking the “more bioavailable” solubilized form show the same result. Providing such uniform absorption in everyone, Microactive CoQ10 is the only ingredient of its kind in the market.

So when you reflect on the fact that “you are what you absorb,” you should be using products with guaranteed absorption. And when it comes to Coenzyme Q10, MicroActive CoQ10 clearly stands out from the rest of the pack. ■

## The LUTEIN Connection

**L**ike CoQ10, lutein can also be a challenge for some people to absorb properly into their system. A similar lutein formulation incorporating a patented lutein-cyclodextrin complex, MicroActive® lutein, was tested in a human clinical trial. The double-blind study compared the uptake of 100 mg lutein from a commercially available oil formulation with 100 mg of lutein in the MicroActive product.

In the study, the subjects took one of the formulations, waited two weeks, then took the other. The amount of lutein in the blood serum was tested four times during a 24 hour period following each dose. Eight of the nine subjects had greater increase in lutein uptake over basal serum lutein (baseline) with MicroActive lutein, as compared to the lutein delivered in oil, with the ninth subject having the same result for both. The subjects showing the greatest gain with MicroActive lutein were those who showed the poorest absorption with the softgel. The uptakes of the MicroActive lutein was 39 percent greater than the softgel.

The results support the conclusion that Microactive lutein is not only more bioavailable, but also more uniformly absorbed since it improves total uptake and dramatically improves the uptake of poor absorbers — subjects who may have greater risk for macular degeneration due to age and other factors associated also with poor absorption. ■

