Dynamic Chiropractic

VITAMINS / SUPPLEMENTS

Co-Enzyme Q10: Essential for Cardiovascular Health After Age 40 (Part II of II)

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High Blood Pressure and Angina

As mentioned in part I (March 11 *DC*: www.chiroweb.com/archives/22/06/11.html), a lack of CoQ_{10} synthesis contributes to compromised performance of the heart and cardiovascular system. This can hasten the onset of congestive heart failure, but some preliminary studies now indicate it may also contribute to the development of high blood pressure, angina and irregular heartbeat. In these cases, daily CoQ_{10} supplementation in the range of 100-200 mg has been shown to be successful in improving exercise performance in patients suffering from angina; reducing high blood pressure by 9 percent to 20 percent in patients with high blood pressure; and reducing the number of episodes of irregular heartbeat in patients with mitral valve prolapse, because of its ability to stabilize the irritability of the heart muscle.

What is clear from the available clinical and experimental studies that have been performed is that the heart and cardiovascular system depend on CoQ_{10} to generate the ATP energy they require to remain healthy and functional. The lack of CoQ_{10} synthesis that occurs as part of normal aging must be viewed as an important step that leads to the decline in cardiovascular health and death from cardiovascular diseases, which account for nearly 50 percent of all mortality in our society. The prudent anti-aging step to consider in order to counter this problem is simply to begin supplementing with a CoQ_{10}-containing supplement between age 40 and 50.

Hawthorn Enhances the Effectiveness of CoQ_{10}

The final piece of anti-aging information to know regarding CoQ_{10} supplementation is that the active ingredients from hawthorn berries and hawthorn leaves help maximize its ATP-energy-generating effect. This is because the production of ATP energy in our cells requires a three-step process: First, our cells must make adenosine monophosphate (AMP), then convert it to adenosine diphosophate (ADP), and then, with the help of CoQ_{10}, convert ADP to adenosine triphosphate (ATP), as the body draws upon the energy from carbohydrates, proteins and fat to power these reactions. Once formed, the cells of the body use ATP energy to power all of their functions and metabolic reactions. So, our cells must always be synthesizing ATP, and we must have enough AMP to begin with. This is where hawthorn comes into play.

The active ingredients in hawthorn known as procyanidins (a specialized group of flavonoid compounds) have been shown to enhance cellular levels of AMP. In Japan and other Asian counties, and in Germany and other parts of Europe, supplementation with a standardized grade of hawthorn has been shown in various well-designed studies to reverse congestive heart failure, lower blood pressure, and improve cases of angina. In short, hawthorn enables the cells of the body to make more ATP energy by first giving them greater access to more AMP. This is why CoQ_{10} and hawthorn may be best taken together, as part of an effective anti-aging strategy to maximize cell levels of ATP energy as patients age.

Hawthorn Defined

Hawthorn (*crataegus oxyacantha*) is a spiny tree or shrub native to Europe. Its leaves and berries contain the flavonoids or procyanidins that provide its medicinal effects. When taken together, CoQ_{10} and hawthorn provide a synergistic effect in the production of ATP energy in many body tissues. They are the perfect one-two combination to help counter the decline in ATP energy brought on by age.

It is important to use a standardized grade of hawthorn, which contains 3 percent to 5 percent flavonoid (or procyanidin content), to yield enough of its active ingredients to be effective. My preference is to take a CoQ_{10} supplement that also contains hawthorn, to simplify the supplementation process. In general, there should about 37.5 mg of hawthorn for every 30 mg of CoQ_{10} present in the supplement. This provides an ideal anti-aging synergistic effect to maximize ATP energy production in the body.

Patients on digitalis or digoxin should not take hawthorn without their physician's consent, as it provides similar metabolic effects on cellular AMP concentrations as do these drugs.

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APRIL 2004