

*Consumer Abstract*

Heart failure (HF), a difficult disease to diagnose and treat, affects more than 5.5 million Americans. A variety of drugs are available for treatment, however, numerous patients do not respond to or are intolerant to these medications. As a result, there is interest in using antioxidant supplements to treat and prevent heart disease. Coenzyme Q10 (CoQ10) is one dietary supplement of interest as it is an important antioxidant and its synthesis decreases with age. Furthermore, heart muscle tissue of heart disease patients is deficient in CoQ10 and the level of deficiency is related to the severity of heart disease. To date, heart patients who use CoQ10 have not reported significant side effects and their symptoms and quality of life seem to improve; however, more research is needed to determine the effectiveness of this supplement in patients who are intolerant to standard medications. For this reason, Dr. Jialal's research group plans to randomly assign HF patients who do not respond well to standard medications a CoQ10 supplement or a placebo to determine the effects of this supplement on markers of heart disease.