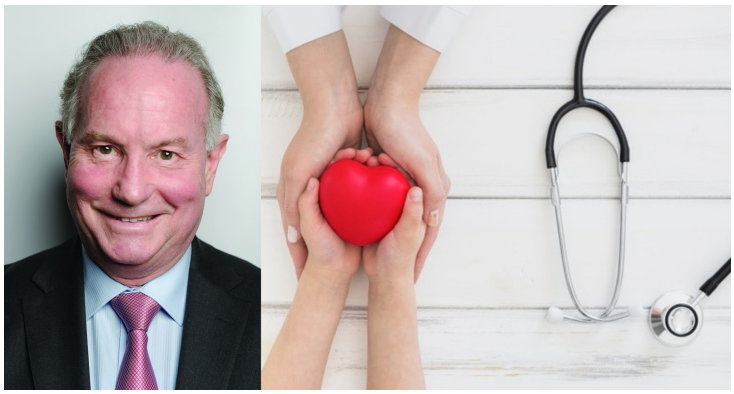
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Are We Missing the Beat When Tackling Rising Rates of Heart Conditions?

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"Studies reveal healthy mitochondria are central for optimal cardiovascular health, and scientists are now focusing on the link between mitochondrial dysfunction, ubiquinol depletion and cardiovascular health problems, including cholesterol and endothelial function" explains Dr Ross Walker, Preventative Cardiologist, Australia



Multiple factors are known to affect the cardiovascular system and contribute to the standard risk factors for atherosclerotic disease and the other components of cardiovascular dysfunction, including inflammation, oxidative stress, and mitochondrial damage influenced by diet and lifestyle choices. It is these combined factors, not just high cholesterol and high blood pressure, that determine cardiovascular health risk.

In Singapore, cardiovascular disease accounted for 31.4% of all deaths in 2022.[1] and has been the top three leading cause of death in the country since 2020.[2] Therefore, I urge all healthcare practitioners to take a closer look at mitochondrial dysfunction as a key contributor to cardiovascular health conditions that may affect all age groups.

I have worked in cardiology for over 40 years, focusing on heart disease prevention and optimal heart health, and have a strong belief in advocating sustainable, healthy lifestyle changes and using evidence-based supplements where appropriate to support cardiovascular health, publishing seven best-selling books on preventative cardiology.

Studies reveal healthy mitochondria are central for optimal cardiovascular health, and scientists are now focusing on the link between mitochondrial dysfunction, ubiquinol depletion and cardiovascular health problems, including cholesterol and endothelial function.

A 2022 study in the *American Journal of Cardiology* found a strong correlation between ubiquinol levels (the endogenous antioxidant found naturally in our bodies) and the risk of heart conditions in ageing populations.[3]

Another notable study, the 2023 Shigatse CARdiorespiratory Fitness (SCARF) study, delves into the intricate relationship between cardiovascular fitness and ubiquinol, an essential coenzyme with profound implications for heart health, with findings suggesting that those with higher ubiquinol levels tend to exhibit improved cardiovascular fitness, characterised by enhanced endurance, reduced cardiac strain and more efficient oxygen utilisation during physical activities.[4]

While maintaining healthy cardiovascular function is influenced by healthy mitochondria, mitochondrial function is dependent on essential nutrients for fuel such as ubiquinol, found naturally in our bodies.

Science demonstrates mitochondria organelles, help generate most of the chemical energy (adenosine triphosphate (ATP)) we need to perform vital, daily functions. To create this energy and support the energy production process, the mitochondria require nutrients such as ubiquinol. The heart is one of the most energy-demanding organs in the body containing between 5000 and 8000 mitochondria.[5]

When the mitochondria are not functioning in their optimal state, fatigue and weakness may develop, and this may affect the function of all our organs, including the heart.

Our natural ubiquinol levels decline from the age of 30.[6] After about 50 years of age, the enzymes that convert ubiquinone to ubiquinol decline[7], which may affect cardiovascular health.

It is also important that we adopt, and advocate to patients, simple lifestyle strategies that can easily but dramatically help support heart health.

1. **Quit all addictions such, as smoking,that negatively impact health**

The world's most common addiction, caffeine, has been shown to help protect cardiovascular cells from damage and help them to repair.[8] However, regularly ingesting more than four cups of coffee per day has been shown to have no health benefits and can certainly cause marked cardiac irregularities.[9] Stopping smoking, reducing alcohol intake and avoiding illegal drugs are vital health practices.

2. **Practice good sleeping habits**

Create a good sleep environment. People who don't achieve ideal sleep time and sleep hygiene are at higher risk of cardiovascular issues.[10]

3. **Consume a diet that includes anti-inflammatory healthy fats and omega-3s**

The Mediterranean diet (extra virgin olive oil, fish, legumes) has been shown to improve heart health by reducing the plaque in arteries and providing positive metabolic effects.[11]

4. **Exercise daily**

Exercise has major benefits not only for your weight and mental health, with a lack of physical activity being a major risk factor for developing heart problems.[12]

5. **Cultivate a happy life**

Being happy promotes a range of lifestyle habits that are important for overall health. Research has shown that people who maintain healthy friendship networks throughout life have a lower risk of heart disease.[13]

6. **Supplementation**

Research indicates that the body's endogenous production of ubiquinol begins to wane from the age of 30, impacting the energy production in cells, affecting mitochondrial health. A decrease in ubiquinol levels may impede cellular energy production, contributing to oxidative stress, inflammation, reduced immune function, fatigue, and compromised heart and cholesterol health.[14]

Heart friendly supplements, such as ubiquinol, magnesium orotate, vitamin D and vitamin K2, bergamot derivatives (BJE100), Kyolic garlic may assist with supporting a healthy heart.[15,16]

Always read the label. Use only as directed. If symptoms persist consult your healthcare professional.

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