

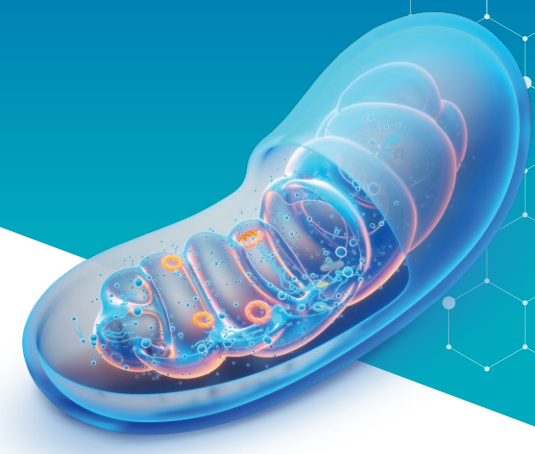


Mitochondrial Health, Cardiovascular Wellness, and Kaneka Ubiquinol®

Ubiquinol, the active antioxidant form of coenzyme Q10 (CoQ10), is naturally present in the body's cells, tissues, and organs and is vital for maintaining cellular integrity and function.

It supports cardiovascular health by aiding cellular energy generation and neutralizing free radicals, helping protect mitochondria from oxidative damage.

However, ubiquinol levels decline with age. At the same time, the increase of free radicals associated with aging can contribute to oxidative stress, which may impact mitochondrial and cellular function.



The Impact of Mitochondrial Health on Cardiovascular Wellness

Oxidative stress—an imbalance between free radicals and antioxidants—can affect mitochondrial function and overall cellular health.

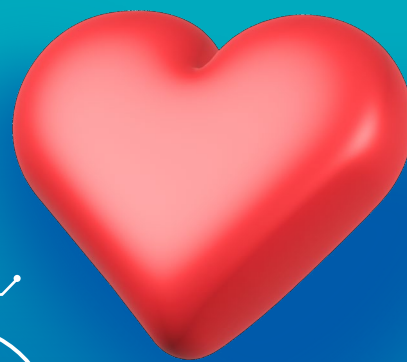
The high metabolic rate of the mitochondria in the heart's cells results in elevated free radical production, leaving the heart's cells vulnerable to oxidative damage. Free radicals can also react with low-density lipoprotein (LDL) cholesterol in the blood, leading to oxidized LDL, which may influence endothelial function and vascular health.

Because mitochondria generate most of the cell's energy—and are also a primary source of free radical production¹—maintaining their function is essential for cardiovascular wellness.

When mitochondrial function declines due to oxidative stress and aging, the resulting cellular changes may, over time, affect organs and systems, leading to common age-related health conditions.^{2,3}

The Role Kaneka Ubiquinol® Plays in Cardiovascular Health

Research shows that Ubiquinol supplementation supports cardiovascular health by:



Maintaining healthy levels of blood markers associated with cardiovascular health⁴⁻⁶

Supporting vascular health by aiding healthy vasodilation and maintaining nitric oxide levels⁵

Helping to protect LDL from oxidation⁷

Replenishing CoQ10 blood levels affected by statin cholesterol medicines⁸

Absorption and Bioactivity of Kaneka Ubiquinol®

2x

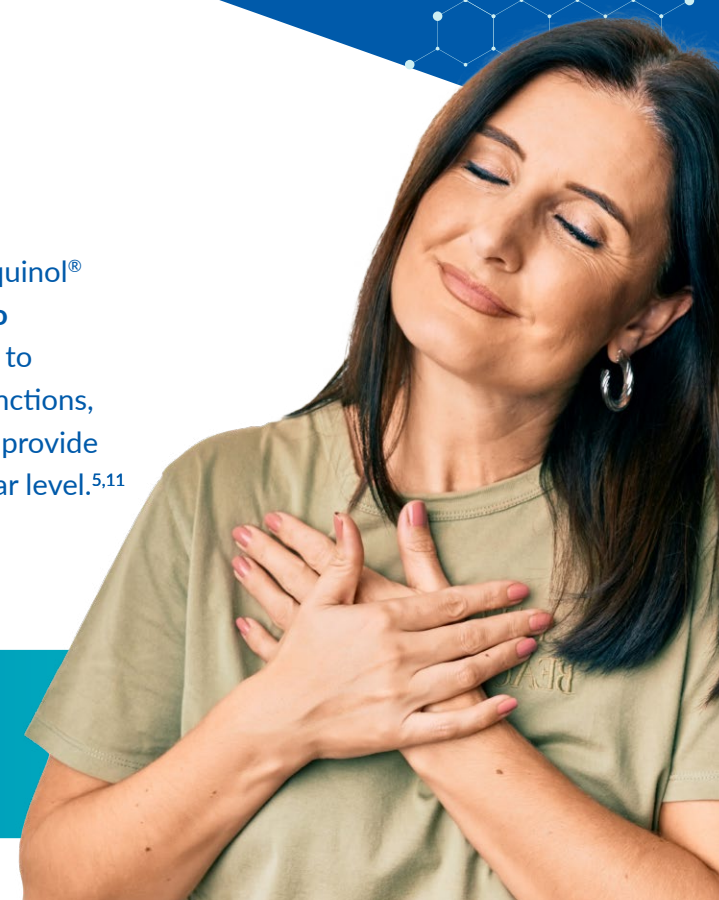
Kaneka Ubiquinol® has been shown to be **2x better absorbed** than conventional CoQ10.⁹

8x

Research demonstrates that 200 mg of Kaneka Ubiquinol® **increases ubiquinol levels by approximately 8x** compared to baseline in healthy adults when taken daily for at least 30 days.¹⁰

NO CONVERSION

Because a Kaneka Ubiquinol® supplement **requires no conversion** in the body to perform antioxidant functions, it is readily available to provide protection at the cellular level.^{5,11}



For those already using CoQ10, switching to Kaneka Ubiquinol® may offer **enhanced absorption and bioavailability**.

The Kaneka Ubiquinol® Advantage

50

50 years of ubiquinone and ubiquinol research and testing

100+

Subject of 100+ clinical studies

18+

18+ years of positive consumer experience with Kaneka Ubiquinol® supplementation



Free of impurities commonly found in synthetic CoQ10



Bioidentical to the ubiquinol naturally produced in the human body



Made in the USA

[Read the White Paper](#)

Kaneka
NUTRIENTS



Nutrients.Sales@Kaneka.com
KanekaNutrients.com

These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

References

- Bentinger M, Brismar K, Dallner G. The antioxidant role of coenzyme Q. *Mitochondrion*. 2007;7 Suppl:S41-S50.
- Adebayo M, Singh S, Singh AP, Dasgupta S. Mitochondrial fusion and fission: the fine-tune balance for cellular homeostasis. *FASEB J*. 2021;35(6):e21620.
- Pallotti F, Bergamini C, Lamperti C, Fato R. The roles of coenzyme Q in disease: direct and indirect involvement in cellular functions. Direct and Indirect Involvement in Cellular Functions. *Int J Mol Sci*. 2021;23(1):128.
- Onur S, Niklowitz P, Jacobs G, et al. Ubiquinol reduces gamma glutamyltransferase as a marker of oxidative stress in humans. *BMC Res Notes*. 2014;7:427.
- Sabbatini J, Orlando P, Galeazzi R, et al. Ubiquinol ameliorates endothelial dysfunction in subjects with mild-to-moderate dyslipidemia: a randomized clinical trial. *Nutrients*. 2020;12(4):1098.
- Kawashima C, Matsuzawa Y, Konishi M, et al. Ubiquinol improves endothelial function in patients with heart failure with reduced ejection fraction: a single-center, randomized double-blind placebo-controlled crossover pilot study. *Am J Cardiovasc Drugs*. 2020;20(4):363-72.
- Stocker R, Bowry VW, Frei B. Ubiquinol-10 protects human low density lipoprotein more efficiently against lipid peroxidation than does alpha-tocopherol. *Proc Natl Acad Sci U S A*. 1991;88(5):1646-50.
- Zlatohlavek L, Vrablik M, Grauova B, Motykova E, Ceska R. The effect of coenzyme Q10 in statin myopathy. *Neuro Endocrinol Lett*. 2012;33 (Suppl 2):98-101.
- Langsjoen PH, Langsjoen AM. Comparison study of plasma coenzyme Q10 levels in healthy subjects supplemented with ubiquinol versus ubiquinone. *Clin Pharmacol Drug Dev*. 2014;3(1):13-7.
- Hosoe K, Kitano M, Kishida H, Kubo H, Fujii K, Kitahara M. Study on safety and bioavailability of ubiquinol (Kaneka QH) after single and 4-week multiple oral administration to healthy volunteers. *Regul Toxicol Pharmacol*. 2007;47(1):19-28.
- Kubo H, Yamamoto Y, Fujisawa A. Orally ingested ubiquinol-10 or ubiquinone-10 reaches the intestinal tract and is absorbed by the small intestine of mice mostly in its original form. *J Clin Biochem Nutr*. 2023;72(2):101-6.