

# RenuQ 50

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## Clinical Applications

- Supports Health/Function of the Cardiovascular System\*
- Helps Maintain Natural Plasma/Tissue CoQ10 Levels\*
- Patented Enhanced Absorption of EPA and DHA\*

*RenuQ 50 formulations provide dual-action cardiovascular support with patented ingredients selected for their individual roles in promoting heart health. MaxSimil® highly absorbable monoglyceride fish oil is independently verified to meet the highest quality, safety, and purity standards in the world. Kaneka Q10®, a naturally pure form of bioidentical CoQ10 (available in 50 mg and 100 mg), is well-researched for boosting energy production in the heart and protecting the cardiovascular system from oxidative stress.\**

All RENÜ Progressive Medicine Formulas Meet or Exceed cGMP Quality Standards

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## Discussion

RenuQ 50 combines micro-emulsified coenzyme Q10 (CoQ10) with enzymatically enhanced MaxSimil® fish oil to deliver a highly absorbable formulation designed to promote optimal cardiovascular health.\*

### Kaneka CoQ10® (Ubiquinone)

CoQ10 is a fat-soluble compound utilized on a cellular level to generate energy in the form of adenosine triphosphate (ATP) and protect tissues from the burden of oxidative stress, particularly on the heart. CoQ10 is found in the body primarily in its interchangeable ubiquinone and ubiquinol forms.\*

In general, CoQ10 supports mitochondrial energy production, antioxidant activity, cell membrane stabilization, gene expression and apoptosis, and neurological and cardiovascular health.<sup>[1,2]</sup> Levels of CoQ10 in the body can be affected by a number of factors; dietary contribution is minimal, and serum levels tend to decline with age or can be reduced due to drug-induced depletion.\*<sup>[3-5]</sup>

Synthesis of CoQ10 in the body is regulated by the enzyme HMG-CoA reductase. A variety of factors can inhibit HMG-CoA reductase and hinder CoQ10 production and availability resulting in a potential increase in oxidative stress and a decrease in energy generation. In the event of reduced production or drug-induced depletion, supplementation with CoQ10 is recommended to help maintain normal levels in the body.\*<sup>[6,7]</sup>

The contribution of CoQ10 supplementation to cardiovascular health has been supported in human research studies.<sup>[2,6,8-10]</sup> A randomized, double-blind, placebo-controlled study utilizing Kaneka CoQ10 ubiquinone was conducted in a select group of 49 patients. Researchers observed that supplementation with 100 mg/day successfully restored plasma levels and significantly increased total CoQ10 levels by 127%.<sup>\*[11]</sup>

In the randomized, double-blind, placebo-controlled Q-SYMBIO study, 420 patients were assigned to parallel groups to receive CoQ10 (100 mg three times per day) or placebo. Within three months, researchers observed in the CoQ10-supplemented patients a reduction in N-terminal pro-B-type natriuretic peptide (NT-proBNP), an important marker of heart health. After two years, patients who were supplemented with CoQ10 had significant cardiovascular improvement overall compared to placebo.\*<sup>[12]</sup>

In addition to the studies above that explored restoring drug-induced plasma CoQ10 production, research into restoring plasma levels that naturally decline with aging has also been conducted. In a study of older adults (N = 24) supplemented with 300 mg/day of CoQ10 for seven days prior to cardiac surgery, the CoQ10 content of atrial tissue was significantly increased in those taking the supplement, especially in patients older than 70 years.\*<sup>[13]</sup>

### MaxSimil® Fish Oil Concentrate

The two most well-researched omega-3 fatty acids are the biologically activated oils eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). EPA plays a role in supporting healthy cardiac and circulatory systems while DHA is an essential structural component of the central nervous system. In addition to other physiological effects, research has established that omega-3 fatty acids antagonize arachidonic acid-induced eicosanoid formation. They also help generate resolvins and protectins (EPA and DHA metabolites naturally produced in vivo through enzymatic conversion of EPA and DHA) to aid the body's "clean-up" response to the arachidonic acid cascade, and they promote cardiovascular health.\*<sup>[14-21]</sup>

RenuQ 50 features MaxSimil, a novel monoglyceride concentrated fish oil developed using a unique delivery system that enhances absorption of lipid-based and lipid-soluble nutraceutical and food ingredients. Its patented lipid absorption enhancement technology (PLATform) is a unique vehicle by which to deliver EPA and DHA. Due to the fact that monoglyceride oils are intrinsically emulsifiers and are, by nature, in a readily absorbable form, they can bypass the body's normal fat digestion process. Studies conducted by the manufacturer of MaxSimil provide promising results that show MaxSimil oil may be better absorbed than other fish oils. Rather than supplying a single molecule or metabolite, which would mirror the pharmaceutical model, MaxSimil provides all the benefits of EPA and DHA as well as the expected and desirable benefits of their metabolites. The fish oil is also non-GMO, certified sustainable from Scandinavia, and antibiotic-free.\*<sup>[22-25]</sup>

An unpublished phase 1, double-blind, randomized, crossover, pharmacokinetic study was performed in healthy adults (n = 20) aged between 19 and 71 years who were administered 6 g (containing 1800 mg EPA and 1200 mg DHA) per day of ethyl ester (EE) fish oil or MaxSimil. Parameters studied were plasma EPA and DHA concentration (as percent of total fatty acids), Cmax, and AUC. Compared to EE EPA+DHA, the results indicated that at peak concentration, MaxSimil EPA and DHA forms were three times higher, they reached maximum concentration faster, and maintained their plasma levels longer demonstrating enhanced clinical bioavailability.<sup>[25]</sup> While there is no conclusive published evidence at this time, the results from studies conducted by the makers of MaxSimil provide a promising indication of enhanced absorption rates, and additional peer-reviewed research is warranted.\*

**\*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.**

RenuQ 50

# RenuQ 50 50mg

## Supplement Facts

Serving Size: 1 Softgel  
Servings Per Container: 30

	Amount Per Serving	%Daily Value
Fish Oil Concentrate <sup>S1</sup>	250 mg	**
Total Omega-3 Fatty Acids	174 mg	**
EPA (eicosapentaenoic acid)	115 mg	**
DHA (docosahexaenoic acid)	50 mg	**
Coenzyme Q10 (as ubiquinone) <sup>S2</sup>	50 mg	**

\*\* Daily Value not established.

**Other Ingredients:** Softgel (bovine gelatin, glycerin, purified water, roasted carob powder), yellow beeswax, and mixed natural tocopherols.

**Contains:** Fish (anchovy and/or sardine and/or mackerel).

S1. Manufactured using MaxSimil<sup>®</sup> fish oil. MaxSimil<sup>®</sup> is a registered trademark of Ingenutra Inc. Protected under U.S. Patents 8,119,690 and 8,198,324; Canadian Patents 2672513 and 2677670.

S2. Kaneka Q10<sup>®</sup> is a registered trademark of Kaneka Corp.

## Directions

Take one softgel twice per day, or as directed by your healthcare professional.

Consult your healthcare professional prior to use. Individuals taking medication should discuss potential interactions with their healthcare professional. Do not use if tamper seal is damaged.

## Formulated To Exclude

Wheat, gluten, corn, yeast, soy protein, dairy products, shellfish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, and artificial preservatives.

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