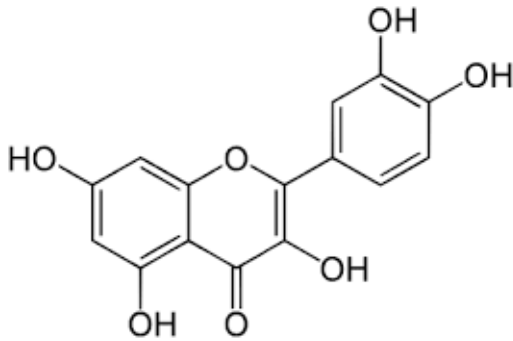


Quercetin Phospholipid

TECHNICAL SUMMARY

Quercetin is a naturally occurring free radical scavenger that supports a balanced immune system response in the face of seasonal immune challenges.* Clinical studies have demonstrated that it can also help to promote normal respiratory function and maintain comfortable breathing.* Quercetin may also help to enhance exercise performance and recovery and alleviate pain due to overexertion.* This quercetin phytosome is encased in a phospholipid sphere to make it up to 20 times more bioavailable than standard quercetin.

Structure formula:



Chemical name: 2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-4H-1-benzopyran-4-one

Allergen and Additive Disclosure: Not manufactured with yeast, wheat, gluten, soy, milk, egg, fish, shellfish, tree nut or sesame ingredients. Produced in a GMP facility that processes other ingredients containing these allergens.

Delivery Form: Vegetable capsules

ROLE AS NUTRIENT/FUNCTION

Quercetin Phospholipid is a unique formulation that combines quercetin with phospholipids to significantly enhance absorption and bioavailability, up to 20 times higher than standard quercetin.* Quercetin is a powerful flavonoid that helps neutralize free radicals, supporting the immune system, especially during seasonal challenges.* It also aids in supporting a normal immune response to biological stress and promoting normal respiratory function.* The enhanced bioavailability of the quercetin phospholipid complex ensures more efficient delivery of quercetin throughout the body, supporting cardiovascular health and improving exercise recovery by reducing oxidative stress.*

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Liberation: The vegetable capsule has a disintegration time of up to 60 minutes in water, per USP standards. This indicates that the contents of the capsule will be released within this time frame, ensuring that the active ingredient is made available for absorption efficiently after ingestion.

Supplement Facts

Serving Size 1 Veg Capsule

Amount Per Serving

Quercetin Phytosome	250 mg**
[from <i>Sophora japonica</i> Extract (Flower) and Sunflower Lecithin] (80 mg Quercetin)	

** Daily Value not established.

Other ingredients: Microcrystalline Cellulose, Hypromellose (cellulose capsule), Potato Maltodextrin, Silicon Dioxide and Stearic Acid (vegetable source).

- Supports Healthy Seasonal Immune Function*
- 20x Higher Bioavailability vs. Standard Quercetin

SUGGESTED USAGE: Take 1 capsule 1 to 2 times daily, preferably with food, or as directed by your healthcare practitioner.

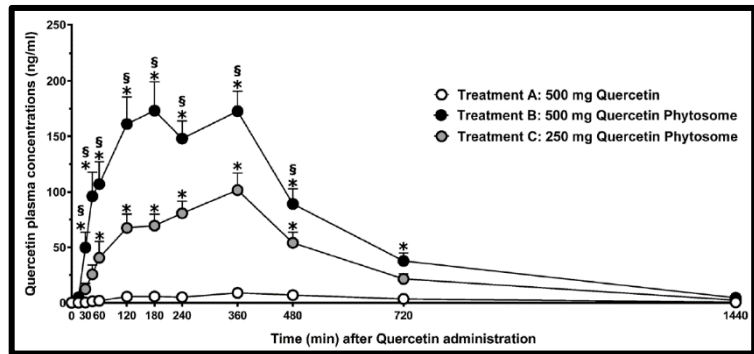


Figure 1: Plasma concentrations of quercetin after oral administration of standard quercetin and quercetin phytosome (250 mg and 500 mg) in healthy adult volunteers.

Absorption: Quercetin phospholipid shows significantly enhanced absorption compared to standard quercetin. As shown in the figure 1, the bioavailability of quercetin is increased when administered as a phytosome/phospholipid. This improvement is due to the phospholipid complex, which aids in crossing the intestinal membrane, allowing for a more rapid and efficient release of quercetin into the bloodstream. Enhanced absorption ensures a better utilization of quercetin's free radical quenching properties.*

Distribution: After absorption, quercetin phospholipid is distributed throughout the body, with a particular affinity for tissues like the liver, kidneys, and muscle tissue. The enhanced absorption from the phospholipid complex allows higher level of quercetin to reach these tissues, providing effective free radical protection.* Quercetin is also able to cross the blood-brain barrier, contributing to its potential neuroprotective effects.*

Metabolism: Quercetin undergoes extensive metabolism in the liver and intestine, where it is converted into various metabolites, including glucuronides, sulfates, and methylated derivatives. These metabolites have increased water solubility, making them easier for the body to process. The metabolic transformation of quercetin helps maintain its activity over time, allowing for sustained effects.

Elimination: Quercetin and its metabolites are primarily eliminated through the kidneys in the urine, with some excretion through bile into the digestive tract. The elimination process ensures that quercetin does not accumulate extensively in the body, reducing the risk of potential toxicity. The efficient clearance of its metabolites helps maintain a balanced concentration of active quercetin over time.

CLINICAL VALIDATION

- **Immune Support.*** A study involving 50 individuals examined the effects of quercetin phospholipid supplementation (250 or 500 mg daily) over 30 days. The results showed that quercetin supplementation supported better respiratory function and contributed to maintaining a balanced immune response.* Participants in the quercetin group demonstrated improved measures such as peak expiratory flow (PEF) and reduced seasonal respiratory discomfort compared to those receiving standard care, suggesting quercetin’s role in supporting immune health.*
- **Respiratory Function.*** A 30-day study involving 50 participants with mild respiratory discomfort found that quercetin supplementation (250 mg twice daily) helped improve breathing and maintain comfortable respiratory function.* The results were statistically significant (P < 0.05).*
- **Exercise Recovery.*** A 14-day study with 48 athletes showed that quercetin supplementation (250 mg twice daily) enhanced post-exercise recovery, reducing perceived muscle soreness and improving overall performance metrics by up to 11% compared to the control group (Figure 2, 3 and 4).*

SAFETY INFORMATION

Tolerability: Quercetin phospholipid is generally well-tolerated at recommended doses. Some users may experience mild gastrointestinal discomfort, such as nausea, bloating, or stomach upset, especially when taken on an empty stomach. These effects are typically mild and resolve on their own.

Contraindications: It is not recommended for use during pregnancy or breastfeeding without consulting a healthcare provider due to limited safety data in these populations.

INTERACTIONS

Drug Interactions: Quercetin may interact with medications that affect blood clotting, such as anticoagulants (e.g., warfarin) and antiplatelet drugs, potentially increasing the risk of bleeding. It can also influence the effectiveness of certain blood pressure medications due to its impact on nitric oxide production.

Supplement Interactions: Combination of quercetin with other antioxidant supplements like vitamin C or vitamin E may enhance overall antioxidant effects, but caution is advised with high doses to avoid possible interactions.

Interaction with Lab Tests: Quercetin may affect lab results related to liver function tests due to its metabolism in the liver, potentially influencing enzyme levels.

STORAGE

Store in a cool, dry place in original sealed container.

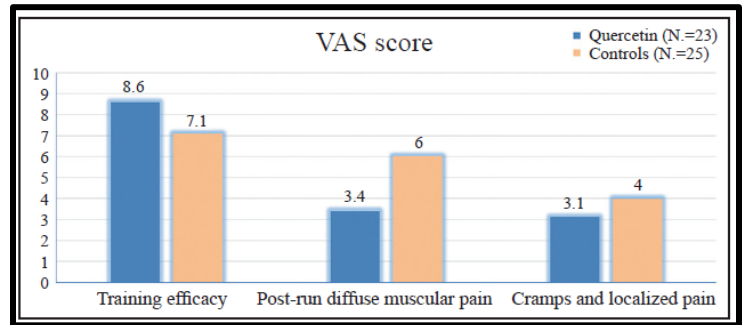


Figure 2: Perceived training efficacy, diffuse and localized pain in the quercetin and the control group. P<0.05 for quercetin vs. control for all comparisons.

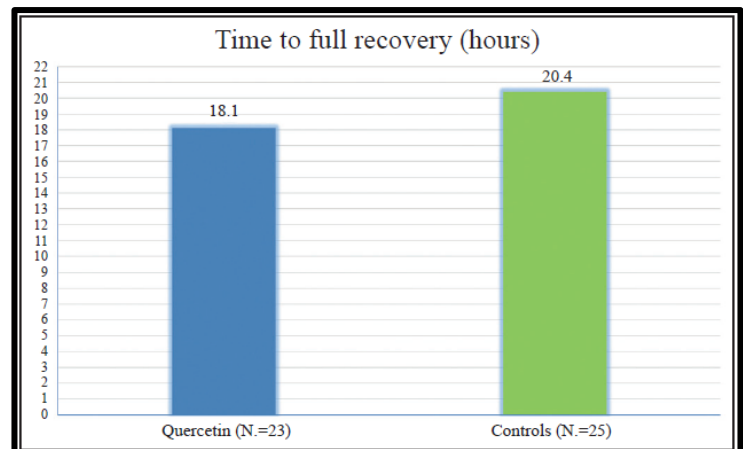


Figure 3: Time to full recovery pain in the quercetin and the control group. P<0.05 for quercetin vs. controls.

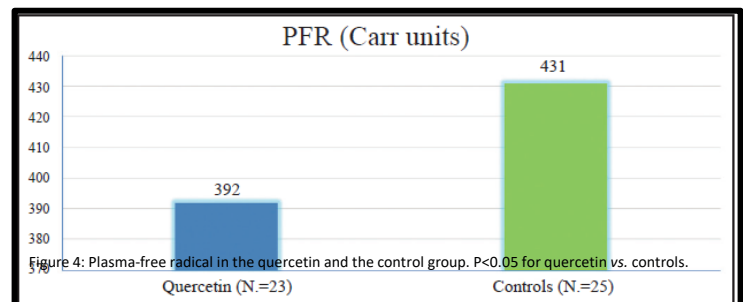


Figure 4: Plasma-free radical in the quercetin and the control group. P<0.05 for quercetin vs. controls.

*These statements have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.