Resveratrol and curcumin: Harnessing synergy and maximizing bioavailability*

Resveratrol and curcumin are the most thoroughly studied polyphenols in integrative medicine. Diverse lines of scientific evidence indicate benefits such as cellular, metabolic, cardiovascular and cognitive health, and recent research has supported a convergence of clinical indications for these compounds. In light of the remarkable overlap in applications and robust efficacy of combinations in preclinical studies, it is not surprising that in the last 2 years, researchers have identified functional synergy between these compounds in antioxidant activity, signal transduction, gene expression and cellular health.1-4

Pure Encapsulations has partnered with experts in the field of polyphenol delivery technology as part of a multidisciplinary commitment to research-driven innovation. Such collaborations have led to recent breakthroughs in curcumin and resveratrol bioavailability using the MicroActive® system, an extensively validated platform that improves solubility, reduces particle size, improves absorption and provides sustained-release of active polyphenols. MicroActive® preparations have demonstrated superior dissolution profiles and human clinical research has confirmed significant increases in oral bioavailability and duration in plasma relative to standard formulations.*

In a human pilot study, a single dose of MicroActive® Resveratrol increased mean peak plasma resveratrol levels 2.5-fold greater than with an equivalent dose of 98% pure resveratrol. Plasma resveratrol concentration was 6-fold greater than pure resveratrol at 9 hours, indicating a sustained presence in plasma (Figure 1). In a separate human trial, MicroActive® Curcumin administered as a single dose resulted in a 30-fold greater mean peak plasma concentration than standard 95% curcumin(Figure 2).*

Superior bioavailability of MicroActive® Resveratrol compared to 98% resveratrol control*

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**Figure 1.** In a human study, subjects received a single dose of either MicroActive® Resveratrol or an equivalent dose of 500 mg pure (98%) resveratrol (control). Peak plasma concentrations, area under the curve (AUC) and duration in plasma were superior to control, and sustained release was evident over the 24-hour period.*

Superior bioavailability of MicroActive® Resveratrol compared to 98% resveratrol control*
In subjects who received MicroActive® curcumin as a single dose equivalent to 250 mg curcumin, Tmax for MicroActive® curcumin was 2 hours followed by sustained release for over 9 hours. Cmax for MicroActive® curcumin was 30-fold greater than for unformulated curcumin (a 250 mg dose of total curcuminoids). AUC for MicroActive® curcumin was 8.6-fold greater than unformulated curcumin.*

Landmark discoveries supporting the effectiveness of resveratrol and curcumin in maintaining cellular health, neuroprotection and vascular endothelial cell homeostasis have been made using highly validated cell culture models that closely mimic physiological conditions. In most of these studies, cells are bathed in serum media containing these polyphenols over a 2-24 hour period. High oral bioavailability enables the clinician to more effectively match plasma levels with the concentrations used in these studies. An equally important clinical objective is sustained-release, which most effectively emulates the extended presence of active compound in cell culture studies. Thus, consideration of both bioavailability and sustained-release increases the relevance of 20 years of published cell culture studies.*

ResCu-SR™ is a powerful combination of MicroActive® curcumin and resveratrol, exclusive to Pure Encapsulations. The clinically documented bioavailability and sustained-release profile of both polyphenols optimizes clinical efficacy across a broad range of cardiovascular, neurocognitive, metabolic, ocular, musculoskeletal and longevity applications.*

Click here to learn more information about ResCu-SR™.

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References


*For educational purposes only. Consult your physician for any health problems.*

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