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Curcumin has many potential benefits to health, but is poorly absorbed. Scientists at USANA Health Sciences recently demonstrated that a new formulation of curcumin complexes with phospholipids is nearly 30 times more bioavailable than a standard curcumin complex.

CURCUMIN BIOAVAILABILITY IS INCREASED WITH NEW PHOSPHOLIPID FORMULATION

Curcumin is a yellow pigment and a major component of turmeric, which is commonly used as a spice and food-coloring agent. It is also used as a cosmetic and in some medical preparations. Curcumin is a potent antioxidant known to reduce oxidative damage of DNA and proteins. Because of these actions, curcumin is thought to have potential therapeutic benefits in diseases associated with oxidative damage such as certain cancers, cardiovascular disease, and neurodegenerative diseases. Curcumin, despite very promising potential benefits revealed in preclinical research, has been somewhat neglected compound in biomedical research due to its poor bioavailability.

In a recently published study in the *Journal of Natural Products*, scientists from USANA Health Sciences analyzed the relative absorption of a standardized curcuminoid mixture and a new corresponding formulation containing phospholipids (Meriva). The inclusion of curcumin in a lipophilic matrix was predicted to have an improved bioavailability profile.

In a randomized, double-blind, crossover human study, clinically validated dosages were used for both products, and plasma levels of all three major curcuminoids [curcumin, demethoxycurcumin, and bisdemethoxycurcumin] were evaluated. Total curcuminoid absorption was about 29-fold higher for Meriva than for its corresponding unformulated curcuminoid mixture.

The major plasma curcuminoid after administration of Meriva was not curcumin, but demethoxycurcumin, a more potent analogue in many in vitro anti-inflammatory studies.

This study demonstrates that formulation with phospholipids improves the human absorption of curcuminoids and that improved absorption, and possibly also a better plasma curcuminoid profile, might explain the clinical efficacy of Meriva at doses significantly lower than standard curcuminoid mixtures.

John Cuomo et al. Comparative Absorption of a Standardized Curcuminoid Mixture and Its Lecithin Formulation. J. Nat. Prod., 2011, 74 (4), pp 664–669.