

CURALIEVE

Advanced Absorption Curcumin

ABSORPTION AND BIOAVAILABILITY

Curcumin is poorly absorbed and quickly eliminated from the human body. The crystalline structure of native curcumin makes it insoluble and poorly dispersible in water.¹ Its crystalline structure is thought to contribute to its low bioavailability and limited therapeutic uses. Curalieve contains curcumin (curcuRouge[®]) but in the amorphous form with a unique excipient profile, making it more dispersible in water than native curcumin and more bioavailable than even Theracurmin.⁹

While curcumin has many proposed health benefits when consumed orally, its poor solubility and low bioavailability limits its therapeutic uses. Native curcumin forms a crystalline structure that repels water and rapidly precipitates from solution.¹ This crystalline structure is believed to explain why consumption of native curcumin, even in gram amounts, yields little change in blood curcumin levels.³⁻⁴ However, the low bioavailability of compounds that tend to form water-insoluble crystalline structures is not a new challenge to overcome.

Formulation strategies have been employed that transform these crystalline compounds into amorphous dispersions that have greater solubility and absorption.¹ Such technologies help explain the science behind curcuRouge. The goal in development of curcuRouge[®] was to develop a highly absorbable form of curcumin by disrupting its crystalline structure.⁹

This occurs by first melting native curcumin. Once cooled, the sample is pulverized and mixed with foodbased polymers to stabilize the amorphous structure and interfere with recrystallization. The resulting product, curcuRouge, is a light red powder containing approximately 40% curcumin and has a smaller particle size and improved dispersibility compared to native curcumin. The amorphous nature of curcuRouge contributes to its enhanced dispersibility and higher bioavailability as shown in both animal and human research.⁹

You can learn more about this new curcumin technology here.