



A clinical research article on CuminUP60®, written by the Chenland's research team, was published in the authoritative journal Heliyon; a full-discipline open journal under Cell Press.

The main purpose of this study is to evaluate the difference in human oral bioavailability between Chenland's innovative curcumin CuminUP60® and standard 95% curcumin. The bioavailability is mainly calculated by measuring the plasma curcumin concentration at different time points after subjects take the product orally, providing evidence that curcuminoids processed using Chenland's patented CGSF (Co-Grinding Solvent Free) technology has higher oral bioavailability than standard curcumin. The effects of increased bioavailability enable a reduction of dosage and increasedcost efficiency, providing customers with more effective and less expensive curcuminoid products.

The results of the study show that compared with 95% curcumin, CuminUP60® increases the bioavailability 17 times within the specified time [1]. Therefore, when

CuminUP60® is used in functional foods, beverages, and nutritional health products, a smaller dosage is required and lower cost / performance ratio is brought to consumers. In addition to the advantages of high bioavailability, CGSF technology also dramatically increases water dispersibility, greatly broadening the application range of curcumin and supporting more product dosage forms.



## **About Curcumin**

Curcumin is a well-studied natural compound, especially for pain and inflammation relief, and has shown the ability to exert a wide range of biological activities to modulate inflammatory signaling pathways<sup>[2]</sup>. For these reasons, curcumin is increasingly used as a raw material in in food.



In recent years, manufacturers world-wide has made various health claims about curcumin, most of which focus on anti-inflammation, anti-oxidation inhibition of pro-inflammatory factors. The mainstream application directions of curcumin products in the European and American markets are joint health, anti-inflammatory and anti-oxidation, intestinal health, and brain health; the Japanese and Korean markets concentrate on applications such as liver protection, prevention of chemical liver damage, and alcohol-induced chemical liver damage. At present, Chenland's research on the efficacy of curcumin mainly focuses on joint health, anti-fatigue, immune support and energy supplementation, as well as non-commercial research.

CuminUP60® is currently the only curcumin product on the market to demonstrate total water dispersibility, as well as high bioavailability, making it uniquely suited for traditionally difficult to formulate applications such as RTM / RTD.

## About Chenland's Innovative Curcumin



Regarding the problems of poor water solubility and low bioavailability of curcumin, the research and development team of Chenland processed CuminUP60® and CuminUP30™ through the original Co-Grinding Solvent Free (CGSF) preparation technology, removing the pain points of low water solubility, poor stability, and poor absorption and utilization found in similar products.

The research and development team of Chenland also made a series of efficacy evaluations on the innovative curcumin series products, and found that it has significant application effects in the fields of immunity and anti-fatigue.

[1] Wang C, Jiang X, Zhang X, et al. A novel solvent-free co-grinding preparation improves curcumin bioavailability in healthy volunteers: A single-center crossover study[J]. Heliyon, 2023: e12829.
[2] Zheng Zhaoling. Research progress on anti-inflammatory and immune regulation effects of curcumin [J]. Shanxi Traditional Chinese Medicine. 2008. 24(3): 48-49.

SupplySide East is coming! Chenland is introducing our "cutting edge bioavailability" CuminUP60 and "caffeine-free"Ilexpower! Want to know more? Welcome to Secaucus NJ. to our booth #439 for an interview on Apr. 18 to 19.





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