Curcum-Evail®

Highly bioavailable curcumin formula for superior absorption

designs for health®
Science first.

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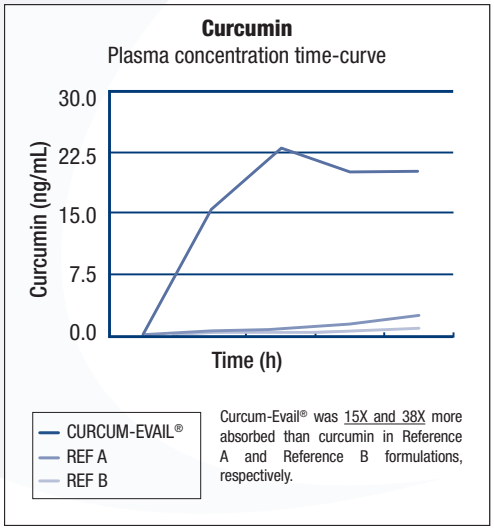
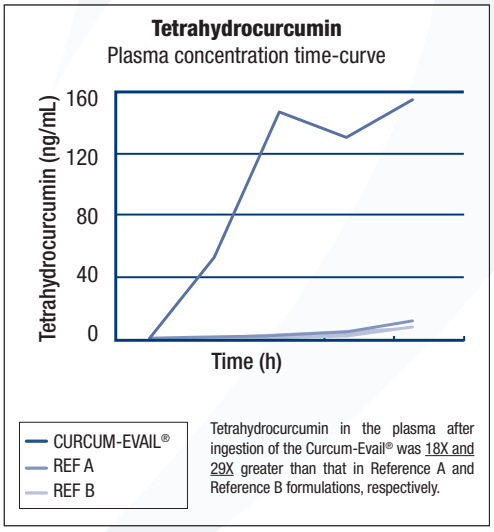
Curcum-Evail® is a patent pending, highly bioavailable curcuminoid formulation. This product contains a unique combination of three bioactive, health-promoting curcuminoids: curcumin, bisdemethoxy curcumin and demethoxy curcumin, along with turmeric oil. The three curcuminoids are the strongest, most protective and best researched constituents of the turmeric root. Naturally occurring turmeric root powder contains only 5-7% curcumin, while the blend in Curcum-Evail® is concentrated to contain 95% curcuminoids, of which curcumin represents 70%.

The crystalline structure of curcumin renders it difficult to absorb in the GI tract. According to researchers, "The potential health benefits of curcumin are limited by its poor solubility, low absorption from the gut, rapid metabolism and rapid systemic elimination."[1] For this reason, Curcum-Evail® is manufactured using the new Designs for Health Evail™ process, which is an all-natural formulation that improves the absorption and delivery of curcumin. This process uses a proprietary blend of turmeric oil, sunflower lecithin, and vitamin E, without the use of potentially harmful surfactants. This delivery technology increases the absorption rate and reduces the absorption time for nutrients and may allow for superior effects through lower dosages.

Curcum-Evail® is unique in that it has been shown to increase tetrahydrocurcumin as well as curcumin, demethoxycurcumin and bisdemethoxycurcumin in plasma. Tetrahydrocurcumin is a major metabolite of curcumin and demonstrates remarkable antioxidant properties exceeding those of curcumin alone.[2-4] Compared to reference products containing equal concentrations of curcuminoids, Curcum-Evail® exhibited several-fold higher absorption, resulting in plasma levels of tetrahydrocurcumin that were nearly 30 times higher. Area under the curve (AUC) amounts for plasma levels of all three curcuminoids in this formula were significantly higher than for the reference products.





Curcumin and the Inflammatory Response

Excessive inflammation is a common risk factor for disease occurrence and progression. Inflammation may lead to joint tissue destruction, cancer, cardiovascular events, insulin resistance/diabetes and brain/liver/kidney degenerative diseases. Research shows curcumin helps support a healthy inflammatory response.[12] It was shown to reduce both acute and chronic inflammation caused by physical injury, joint wear and tear (as in osteoarthritis), chronic infections or inadequate antioxidant protection.[5-8, 12, 18, 19, 22, 60]

Curcumin was shown to be more effective than certain NSAIDs in reducing inflammation and pain associated with rheumatoid arthritis[19] or post-operative trauma[56]. It has a better cardiovascular safety profile than aspirin because, unlike aspirin, it does not inhibit the arterial protective factor prostacyclin.[22] Curcumin acts on the mother compound NF Kappa beta. By suppressing this inflammatory marker, curcumin has a domino effect that reduces the entire cascade of inflammatory compounds that would be produced thereafter.

BENEFITS SHOWN IN RESEARCH USING CURCUMIN EXTRACTS:

IMMUNE SYSTEM REGULATION

- Inflammation[12] – injury, post-operative[56], joint wear and tear (osteoarthritis)[60]
- Allergic reactions – asthma[9]
- Autoimmune activity reduction[19,32] – rheumatoid arthritis and multiple sclerosis in animals
- NK cell activity increase[6]
- Anti-cancer properties – *breast*[23], *prostate*[39], *colon*[32], *pancreatic*[29], *glioma*[33], *ovarian*[53]

ANTIMICROBIAL

- Antiviral[10], Epstein Barr[6] and HIV virus[26,27]
- Antibacterial, antiparasitic[4]

GI PROTECTION & HEALING

- Stomach ulcer, Crohn's or proctitis[9]

CARDIOVASCULAR PROTECTION

- Reduces cholesterol oxidation and levels, increases HDL[30]
- Reduces fibrinogen[38]
- Reduces platelet aggregation[22,41]

BRAIN PROTECTION

- Reduces brain damage following ischemia (reduced blood flow)[51]
- Reduces development and regression of Alzeimer's disease progression in animal models[50]
- Reduces gliomas (brain tumors)[33]
- Antidepressant effects[20]
- **LIVER PROTECTION** from alcohol and aflatoxin (peanut fungus)[58,59]

TOXIC METAL CHELATOR[57]

- Effective chelator of copper and iron

ANTIOXIDANT[31]

BILE SUPPORT

- Enhances bile flow and solubility[43]

Curcumin has an advantage over pharmacological anti-inflammatory agents because it is a powerful antioxidant, so it can also reduce COX expression along with being a COX 1 and COX 2 inhibitor. Where NSAIDs are known to have potential GI side effects such as GI bleeding, one study showed that curcumin was able to heal GI injury caused by the NSAID indomethacin.[8] Amazingly, curcumin and resveratrol have been proven to be even stronger anti-inflammatories than ibuprofen and aspirin.[7]

Allergies and Histamine Release

Curcumin has been shown to decrease histamine release, suggesting that it plays a significant role in exerting both antioxidative and anti-allergic activities.[9] Research shows that curcumin's potential beneficial effect on the allergic response works by inhibiting the production of cytokines affecting eosinophil function and IgE synthesis.[10]

Autoimmune Conditions

Curcumin downregulates mediators characteristic of rheumatoid arthritis,[19] reduces disease activity in Crohn's[13] and was shown to reduce disease activity in a model of multiple sclerosis in animals.[32]

"These findings highlight the fact that curcumin inhibits experimental encephalomyelitis by blocking IL-12 signaling in T cells and suggest its use in the treatment of MS and other Th1 cell-mediated inflammatory diseases."[32]

By boosting NK cell activity increase,[6] curcumin may also enhance the body's ability to fight infections.

Additional Research

There are many studies on curcumin and cancer. For patients undergoing chemotherapy, curcumin does not need to be avoided as it has been shown to enhance chemotherapy effectiveness.[52] Curcumin was the highlight of human clinical trials performed at the M.D. Anderson Cancer Institute in Houston, Texas.

"In addition to antioxidation, curcumin could also induce apoptosis by targeting mitochondria, affecting p53-related signaling and blocking NF-kappaB activation. To further dissect its anticarcinogenic mechanisms, a number of curcumin targets were identified. These included the aryl hydrocarbon receptor, cytochrome P450, glutathione S-transferase, serine/threonine kinases, transcription factors, cyclooxygenase, ornithine decarboxylase, nitric oxide synthase, matrix metalloproteinases and tyrosine kinases."[44]

Many spices protect the body from bacteria and parasites in food, while boosting the body's antioxidant abilities. Research shows curcumin to have antimicrobial activities. Curcumin was shown to reduce transcription of Epstein Barr[25] and HIV virus[26,27]. Curcumin may work to inhibit the growth of *Staphylococcus aureus*, *Staphylococcus albus*, and *Bacillus typhosus*, and is also effective against nematode parasites and certain protozoa.[4,5]

GI Protection

Curcumin may benefit ulcer, proctitis (inflammation of the rectum common in ulcerative colitis and Crohn's disease) and may reduce leaky gut syndrome.

"We conclude that antiulcer activity of curcumin is primarily attributed to matrix metalloproteinases -9 inhibition, one of the major path-ways of ulcer healing."[8] *"A pure curcumin preparation was administered in an open label study to five patients with ulcerative proctitis and five with Crohn's disease. All proctitis patients improved, with reductions in concomitant medications in four, and four of five Crohn's disease patients had lowered CDAI scores and sedimentation rates."*[13]

Cardiovascular Protection

Curcumin may lower total cholesterol, fibrinogen and platelet aggregation, while increasing HDL and decreasing lipid peroxidation.[30, 38, 22, 41]

In one study, *"The effect of curcumin administration in reducing the serum levels of cholesterol and lipid peroxides was studied in ten healthy human volunteers, receiving 500 mg of curcumin per day for 7 days. A significant decrease in the level of serum lipid peroxides (33%), increase in HDL Cholesterol (29%), and a decrease in total serum cholesterol (11.63%) were noted."*[30] According to another study, *"Our reviewed data show that, in human healthy subjects, the daily intake of 200 mg of the above extract results in a decrease in total blood lipid peroxides as well as in HDL and LDL-lipid peroxidation. This anti-atherogenic effect was accompanied by a curcuma antioxidant-induced normalization of the plasma levels of fibrinogen and of the apo B/apo A ratio, that may also decrease the cardiovascular risk."*[38]

Brain Protection

Curcumin pretreatment reduced brain damage following ischemia/stroke[51] and from heavy alcohol intake.[54] Curcumin reduced development and severity of Alzeimer's disease in animal models by reducing plaque aggregation and plaque induced oxidative stress and was even capable of dissociating existing plaque.[21] Its chelating ability for iron and copper ions is also believed to play a beneficial role in reducing the progression of the disease.[57]

"Initially, we reported the impact of non-steroidal anti-inflammatory drugs (NSAIDs), notably ibuprofen, which reduced amyloid accumulation, but suppressed few inflammatory markers and without reducing oxidative damage. Safety concerns with chronic NSAIDs led to a screen of alternative NSAIDs and identification of the phenolic anti-inflammatory/anti-oxidant compound curcumin, the yellow pigment in turmeric that we found targeted multiple AD pathogenic cascades. The dietary omega-3 fatty acid, docosahexaenoic acid (DHA), also limited amyloid, oxidative damage and synaptic and cognitive deficits in a transgenic mouse model. Both DHA and curcumin have favorable safety profiles, epidemiology and efficacy, and may exert general anti-aging benefits (anti-cancer and cardioprotective.)"[50]

Available in 30, 60 & 120 count softgels

Supplement Facts

Serving Size 1 softgel

Amount Per Serving	% Daily Value
Curcuminoid Proprietary Blend 1 g	*
Curcuminoid Powder (380 mg curcuminoids - curcumin, demethoxycurcumin, bisdemethoxycurcumin), Turmeric Oil (*Curcuma longa*)(rhizomes), Sunflower Lecithin, Vitamin E	

*Daily Value not established.

Other Ingredients: Gelatin, water, glycerine, and annatto (natural color) (softgel ingredients).

Liver Protection

Curcumin pretreatment was shown to reduce the liver damage induced by alcohol[58] and aflatoxin[59] (the fungal toxin often found along with peanuts/peanut butter).

How to Take

- Take one softgel per day with a meal, or as directed by a health care practitioner.
- There is no upper level of toxicity established for turmeric or curcumin. A range of 200-1200mg/day was used for various applications with significant benefits. The effective dose may depend on the severity of inflammation. One factor that affects inflammation and proliferation is the AA/EPA ratio in cell membranes. The higher the AA/EPA ratio the higher the demand for the inhibition of COX and LOX enzymes, so a higher dose of curcumin may be beneficial.

Interactions

- Not recommended during pregnancy.
- Individuals on blood thinning therapy,[14] or anyone with gallstones (stimulates bile flow), ulcers, and GI inflammatory conditions should be monitored closely.
- Inhibits various P450 enzymes.[47]

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