

Best Curcumin

120 Capsules

Ingredients per capsule:

Turmeric root (*Curcuma longa*)527 mg
(Curcumin C3 Complex®) Supplying 500mg total
curcuminoids

Black pepper fruit (*Piper nigrum*).....3 mg
(Bioperine®)

Excipients: rice powder, magnesium stearate (vegetable
source), gelatin capsule

Suggested Adult Use: Take 1 to 3 capsules daily with food.

Ingredients

Best Curcumin w/Bioperine contains a standardized extract of *Curcuma longa* root, commonly known as "Turmeric." Turmeric is a yellow spice used in curried dishes. In the Far East, turmeric is valued for more than just its culinary applications. The herb has been employed in the Ayurvedic healing tradition for centuries, and is a common household remedy in India. The active ingredients in *Curcuma longa* are a group of plant substances called curcuminoids. Known collectively as "curcumin," curcuminoids have demonstrated potent antioxidant properties in scientific studies.* Curcuminoids benefit joints and other tissues by helping to neutralize free-radicals.* Curcuminoids are responsible for turmeric's distinctive yellow color.

Curcumin C3 Complex supplies 95% total curcuminoids, including curcumin, bisdemethoxy curcumin and demethoxy curcumin. Bioperine is an extract of Black Pepper fruit that contains 95-98% piperine. Bioperine is added as a natural bioenhancer to promote absorption of the product.* Although, the term "curcumin" is used as a name for curcuminoids, "pure" curcumin is just one curcuminoid.

Turmeric- History and Traditional Usage

Native to Southeast Asia, *Curcuma longa* is a tall tropical shrub with large oblong leaves and pale yellow flowers. The genus "Curcuma" belongs to the Zingiberaceae family, which includes ginger.¹ The plant possesses a large root structure with fleshy, bulbous underground parts called "rhizomes." These rhizomes, known as turmeric root, are harvested at maturity, dried and cured for commercial use. Chemical analysis shows that dried turmeric contains essential and volatile oils, with a curcuminoid content of 2.5 to 5.0 %.²

In addition to its popularity as a spice, turmeric is used as a dye for cloth and coloring agent in foods and cosmetics, thanks to its rich yellow color. Turmeric also serves as a preservative, probably owing to the antioxidant and antimicrobial properties of curcumin. Extracts of *Curcuma longa* have demonstrated in vitro antibacterial and anti-fungal effects.³

Turmeric is named in ancient Ayurvedic and Chinese herbal texts as a traditional folk remedy. Historically, turmeric was used externally for wounds, and sprains, and internally for digestive complaints, rheumatism, liver disorders, coughs and colds.⁴

Benefits

Protects Cells and Tissues By Fighting Free Radicals.*

Supports Joint Function*

The numerous beneficial effects attributed to turmeric stem in large measure from the antioxidant properties of curcumin. Antioxidants neutralize free radicals, which are highly unstable molecules that can damage cellular structures through abnormal oxidative reactions. Curcumin is a potent "scavenger" of the superoxide radical, a free radical that initiates potentially harmful oxidative processes such as lipid peroxidation.⁵ Through this activity, curcumin has been shown to protect skin cells from the injurious effect of nitroblue tetrazolium, a toxin that generates superoxide radicals. Curcumin also increases survival of cells exposed in vitro to the enzyme hypoxanthine/xanthine oxidase, which stimulates superoxide and hydrogen peroxide production. Curcumin itself is not toxic to cells, even at high concentra-

tions. Pure curcumin was shown to be less protective than a mixture of curcuminoids, indicating a possible synergism among curcuminoids.⁶ Because free radicals are involved in aging and exert harmful effects on skin, these results suggest curcumin may help slow skin aging.

Curcumin demonstrates several other in vitro effects linked to free radical scavenging. Curcumin scavenges nitric oxide, a compound associated with the body's inflammatory response.⁷ Pure curcumin and turmeric extracts protect red blood cells from lipid peroxidation induced by hydrogen peroxide.⁸ Curcumin has been shown to protect DNA from oxidative damage, inhibit binding of toxic metabolites to DNA, and reduce DNA mutations in the Ames' test.⁹ Although additional studies suggest an anti-carcinogenic effect of curcumin, through protection of DNA,¹⁰ one in vitro study found that curcumin induced DNA damage in human gastric mucosal cells.¹¹ It is speculated that curcumin may act as a pro-oxidant in the presence of transition metal ions such as copper and iron. (This is true for other antioxidants, including vitamin C.) Curcumin also demonstrates in vitro inhibition of COX-I and COX-II enzymes, which are involved in the inflammatory reaction.¹² Together these results strongly suggest that curcumin is a potent bioprotectant with a potentially wide range of therapeutic applications.

Animal Studies- In Vivo Protective Effects

Through its free radical scavenging properties, curcumin has shown bioprotective effects in animals. In one study, rats were treated with isoproterenol, a chemical that causes cardiac hypertrophy (enlargement of the heart) due to abnormal collagen metabolism. Co-treatment with curcumin reversed the degradation of collagen and cardiac hypertrophy induced by isoproterenol.¹³ Curcumin protects mice from detrimental effects of radiation, by stabilizing the glyoxalase system, a biological system that regulates cell division.¹⁴ Curcumin protects livers of rats from the damaging effects of carbon tetrachloride (CCl₄), a potent hepatotoxin that injures the liver via its free radical metabolite, CCl₃.^{15,16} Curcumin protected rats from alcohol-induced brain damage, in a study in which oral administration of curcumin reversed lipid peroxidation, reduced levels of free-radical metabolites and increased levels of glutathione, a major physiologic antioxidant.¹⁷ *Curcuma longa* extracts have shown anti-inflammatory effects in rats.¹⁸

Human Trials

Curcumin exhibits free-radical scavenging ability when administered to humans. In an open trial (uncontrolled), 18 healthy individuals ranging in age from 27 to 67 years consumed a *Curcuma longa* extract, at a dose supplying 20 mg curcuminoids, for 45 days. Before and after blood tests showed a statistically significant decrease in lipid peroxides.¹⁹ Preliminary trials have tested the anti-inflammatory action of curcumin, with results that verify the traditional use of turmeric as an anti-rheumatic herb. In a short-term double-blind, cross-over, comparative study, 18 people received curcumin (1200 mg daily) or phenylbutazone for two week periods. Both curcumin and phenylbutazone produced measurable improvements in joint flexibility and walking time. The subjects reported results only with phenylbutazone, which may be explained by the short duration of the trial.²⁰ In a small placebo-controlled trial comparing curcumin to phenylbutazone, 45 patients with post-operative inflammation received curcumin, phenylbutazone or placebo. The anti-inflammatory effects of curcumin and phenylbutazone were comparable and superior



to placebo.²¹ Curcumin has not been found to produce an analgesic (pain relieving) effect.

Bioperine[®] -Nature's Absorption Enhancer Boosts Curcumin Absorption*

Traditional Ayurvedic herbal formulas often include black pepper and long pepper as synergistic herbs. The active ingredient in both black pepper and long pepper is the alkaloid, piperine. Experiments carried out to evaluate the scientific basis for the use of peppers have shown that piperine significantly enhances bioavailability when consumed with other substances.²² Several double-blind clinical studies have confirmed that Bioperine[®] increases absorption of nutrients.²³

Curcumin is poorly absorbed in the intestinal tract, limiting its therapeutic effectiveness. Oral doses are largely excreted in feces, and only trace amounts appear in the blood. Concomitant administration of 20 mg of piperine with 2 grams of curcumin increases the bioavailability of curcumin by 2000%.²⁴

*This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

Scientific References

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Best Curcumin with Bioperine® contains a standardized extract of Curcuma longa root, commonly known as "Turmeric." Turmeric is the yellow spice that gives flavor to curried dishes. In the Far East, Turmeric is valued for more than culinary uses. The herb has been employed in the Ayurvedic healing tradition for centuries as a folk remedy. The active ingredients in Curcuma longa are a group of plant substances called curcuminoids. Collectively known as "curcumin," they have demonstrated potent antioxidant properties in scientific studies.* Curcuminoids benefit joints and other tissues by helping to neutralize free-radicals.*

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Protects cells and tissues by fighting free radicals.*

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With
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Curcumin
Featuring **Curcumin C3 Complex®**

CELL AND TISSUE PROTECTOR*

500 mg / 120 Capsules

Supplement Facts

Serving Size 1 capsule
Servings per container 120 servings

	Amount per serving	% Daily Value
Turmeric root (Curcuma longa) (Curcumin C3 Complex®)	527 mg	†
Supplying 500 mg total curcuminoids		
Black pepper fruit extract (Piper nigrum) (Bioperine®)	3 mg	†

† Daily Value not established.

Other ingredients: rice powder, magnesium stearate (vegetable source), gelatin capsule.

Suggested Adult Use: Take 1 to 3 capsules daily with food.

Not suitable for vegetarians

CONTAINS NOTHING OTHER THAN LISTED INGREDIENTS.

