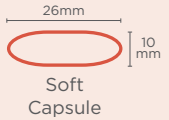


Curcum-Evail™

Highly concentrated and bioavailable form of curcumin



OVERVIEW

- > Provides the equivalent of 26 g of curcumin rhizome per capsule.
- > Evail™ Technology delivery system for enhanced absorption.
- > Antioxidant support.
- > Relieves inflammation.
- > Helps to support joint cartilage health.
- > Helps maintain joint health.
- > Supports healthy digestion.
- > Hepato protectant.

Active Ingredients (per soft capsule)	
<i>Curcuma longa</i> (Turmeric) extract dry conc. stand.	400 mg
From min. dry rhizome (Sabinsa C3 Complex)	26 g
Standardised to Curcuminoids	380 mg
<i>Curcuma longa</i> (Turmeric) essential oil	320 mg
From dry rhizome	6.4 g

Pack Size	60
Servings Per Pack	30-60 serves

Excipients	
Medium chain triglycerides	Gelatin
<i>Bixa orellana</i> (Annatto) seed	Glycerol
Quillaja powder	Purified water

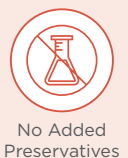
Directions for Use
Take 1 capsule daily or as directed by your healthcare professional.

Allergen Information
No added: soy, gluten, dairy, lactose, or nuts.

Prescribing Considerations
Cautions:
<ul style="list-style-type: none"> • Oral ingestion of concentrated curcumin extracts may theoretically increase risk of bleeding. It is recommended to cease use at least 1 week prior to surgery and caution is advised regarding concomitant use with antiplatelet or anticoagulant medications.^{1,2} • Should only be used in individuals with gallstones following advice from a health professional.¹
Contraindications:
<ul style="list-style-type: none"> • The concomitant use of curcumin with cyclophosphamide in breast cancer patients is contraindicated.²

Warnings
<ul style="list-style-type: none"> • If symptoms persist, seek the advice of a healthcare professional. • Contains sulfites and phenylalanine.

Designed and packed in Australia from imported ingredients.



EDUCATION

Curcuma longa (turmeric) is a perennial, rhizomatous leafy plant (*Curcuma longa*) of the ginger (*zingiberaceae*) family that grows predominantly in tropical and subtropical Asian countries including India and China.^{2,3} Curcumin is the main biologically active curcuminoid constituent naturally occurring in turmeric roots and rhizomes that together with two curcuminoids (demethoxycurcumin and bis-demethoxycurcumin) and essential oils are responsible for the herb's therapeutic effects.^{2,4} Other therapeutically relevant constituents in curcumin are turmerones and tetrahydrocurcumin (THC). Turmerones are essential oil constituents with properties that may also enhance the intestinal absorption of curcumin,⁵ while THC is a metabolite with significant antioxidant activity synthesised following the metabolism of curcumin by gastrointestinal bacteria.⁶ Both turmeric and curcumin have been used extensively in traditional Chinese, Ayurvedic and Western herbal medicinal paradigms for millennia.^{1,2,7-9}

Evail™ Technology

In its raw state, curcumin is a lipophilic constituent and consequently has very low bioavailability, solubility, absorption and tissue distribution and is rapidly eliminated.^{2,4,9} Enabling curcumin's full therapeutic potential requires appropriate modification to enhance such bioavailability and absorption while retaining its natural medicinal properties. Curcum-Evail™ is manufactured using the Designs for Health's Evail™ technology, which is an all-natural formulation that improves the absorption and delivery of curcumin. This process uses a proprietary blend of sustainable MCT oils, Quillaja and Annatto Tocotrienols without the use of potentially harmful surfactants.

Anti-inflammatory

The anti-inflammatory properties of curcumin are well established in the literature. It is a dual inhibitor of the arachidonic acid cascade (inhibiting both LOX and COX) preventing the formation of inflammatory leukotrienes.^{10,11} It also quells NF-κβ activation by decreasing IκB-α phosphorylation therefore also inhibiting the NF-κβ activation pathway (inhibiting the transcription of these proteins rather than their enzymatic functions).¹¹ Further to this, Curcumin is able to affect prostaglandins, thromboxane, nitric oxide, collagenase, elastase, hyaluronidase, TNF-α and the cytokines IL-6, 8 and 12. It also downregulates Matrix Metalloproteinase formation.^{10,11}

Antioxidant

Curcumin also possesses antioxidant activities. It's unique chemical structure consisting of carbon-carbon double bonds, b-diketo group and phenyl rings with hydroxyl, and o-methoxy groups gives Curcumin the ability to bind free radicals, hydrogen atom donors, and electron donors, neutralising free radicals. It can quench superoxide radicals, hydrogen peroxide, and nitric oxide and also inhibit lipid peroxidation by increasing the activity of various antioxidant enzymes such as SOD, CAT, GPx, and OH-1. It also upregulates the activity of glutathione transferase thereby increasing GSH levels.¹²

Curcumin's anti-inflammatory and antioxidant activities give it a unique ability to halt the cyclic progressive relationship between tissue oxidation and inflammation.¹²

Joint Health

The anti-inflammatory activity of turmeric has been attributed to its effects on joint health. A number of clinical trials have been conducted on various turmeric extracts at dosages of 180mg-2gms daily. Results of these trials show support for joint health by affecting parameters such as pain, stiffness and function.¹³

Hepatic Support

Curcumin's antioxidant activity conveys a hepatoprotective effect in that it helps to inhibit lipoperoxidation of cell membranes, NF-κβ activation driven by endo-toxin exposure (including acetaminophen, carbon tetrachloride and aspergillus aflatoxin) 5, and cytokine, chemokine, COX-2 and iNOS expression in Kupffer cells.¹⁰

Turmeric also has a cholagogue action, helping to stimulate gall bladder contraction, thereby stimulating bile flow.¹⁰ It also facilitates the excretion of bile salts and bilirubin, whilst bearing influence over bile solubility.¹⁴

Digestion

Compounds found in Turmeric can support the production of gastrin, secretin and pancreatic enzymes.¹⁴

Cardiovascular Support

Turmeric's cholagogue action described above, helps to support hepatic cholesterol excretion via the gall bladder.¹⁰ It's antioxidant action also helps to provide protection to blood lipids and the cardiovascular endothelium, whilst it's anti-inflammatory activity can provide cardioprotective effects.^{10,11,14}

References supplied on request.

Designs for Health Quality Guarantee

Designs for Health medicines that are listed on the Australian Register of Therapeutic Goods will display an AUSTL number on the label. Listed medicines in Australia need to be manufactured according to legislated standards set out in Therapeutic Goods Order 101. TGO101 legislation sets out minimum quality standards for medicines supplied in Australia that display an AUSTL number. It mandates testing for:

- Impurities such as heavy metals (including lead, mercury, cadmium and arsenic), pesticides and residual solvents.
- Dissolution (to ensure the capsule will dissolve once taken).
- Uniformity (to ensure that every capsule is the same).

Final assay testing is also performed to ensure that what we have on the label is in each capsule, and microbiological testing is performed to ensure that no microbial contamination has occurred during the encapsulation and packing process.