

# CurcuminRich<sup>™</sup> WHOLE BODY OPTIMIZER High Absorption Curcumin

# RESFARCH INFORMATIO

### Feature summary

Natural Factors CurcuminRich Whole Body Optimizer supports cardiovascular and cognitive function by promoting a balanced inflammatory response while providing powerful antioxidant protection. It was formulated to address the smoldering, silent type of inflammation linked to many chronic conditions. It combines antioxidant Theracurmin<sup>™</sup> curcumin with omega-3 EPA/DHA, boswellia, InflamRelief<sup>™</sup> complex, and astaxanthin, for a multifaceted approach to whole body wellness.

Curcumin, the yellow pigment in turmeric (*Curcuma longa*), has the ability to block more than 30 different inflammation pathways, but regular curcumin is poorly absorbed, rapidly metabolized, and quickly excreted. Theracumin is an advanced form of curcumin widely used to promote a healthy inflammatory response and for potent antioxidant protection against free radicals. Scientific scrutiny has shown that Theracumin is more bioavailable than other leading enhanced and regular forms of curcumin, ensuring a therapeutically effective level in the blood.\* The long-chain omega-3 fatty acids EPA and DHA support cell membrane health and cellular signalling. *Boswellia serrata* extract helps mediate normal inflammatory processes and support healthy blood vessels, nerves, and brain tissue.

The Whole Body Optimizer provides additional antioxidant activity, courtesy of astaxanthin and the plant polyphenols (from seven fruit extracts) in the InflamRelief Complex, further supporting healthy joints, tendons, and muscles by promoting a balanced inflammatory response.

# How it works

Persistent inflammation can lead to joint damage, pain, and impaired mobility. Natural compounds such as curcumin, beta-boswellic acid, and polyphenols including ellagic acid, procyanidins, and catechins, inhibit the production of pro-inflammatory substances, thereby reducing joint stiffness, swelling, and pain. For example, boswellia's key active component, beta-boswellic acid, decreases the activity of enzymes that destroy joint cartilage, while compounds in cranberry and red raspberry extracts inhibit the activity of cells that break down bone and collagen.

Theracurmin and the polyphenols in the InflamRelief complex influence immune system activity and decrease pain associated with autoimmune conditions like rheumatoid arthritis.

All the natural antioxidants in this formula, including curcumin, procyanidins, and astaxanthin, seek out and neutralize free radicals. Astaxanthin, because of its unique lipid-soluble structure, quenches free radicals both within and outside the cell membrane, protecting the eyes and brain. Curcumin enhances the body's detoxification capacity and the elimination of dangerous heavy metals and other toxins.

The long-chain omega-3 fatty acids from fish oil help reduce the risk of undesirable blood clot formation by inhibiting production of pro-thrombotic substances. As well as supporting healthy circulation, the omega-3 fatty acids EPA and DHA reduce production of pro-inflammatory substances to relieve swelling and pain.

\*Scientific scrutiny revealed that Theracurmin was more bioavailable on a milligram-to-milligram basis than other leading<sup>+</sup> enhanced and regular forms of curcumin.

<sup>†</sup>As measured by SPINS 2014 data.



### Research

Numerous clinical trials have confirmed the anti-inflammatory, antioxidant, and analgesic (pain-relieving) properties of curcumin, as well as its ability to actively encourage the repair of connective tissue and bone (Henrotin et al., 2013). In one randomized controlled trial, curcumin and phenylbutazone (a rheumatoid arthritis medication) produced similar improvements in morning stiffness, walking time, and joint swelling (Deodhar et al., 1980).

Early research noted, however, that large quantities of curcumin had to be consumed to confer any health benefits, as the compound is poorly absorbed and rapidly excreted. To overcome these limitations, scientists developed Theracurmin, which uses proprietary technology to create microscopic curcumin particles dispersed in a colloidal suspension. Theracurmin ensures a therapeutically effective level of curcumin in the blood that lasts for hours (Kanai et al., 2012). Clinical trials in animals and humans have confirmed Theracurmin's safety and efficacy. This highly bioavailable form of curcumin has been shown to have superior absorption; to help reduce tissue damage caused by inflammation; and to support healthy liver function (Shimatsu et al., 2012).

Omega-3 fatty acids also have significant clinical benefits in inflammatory conditions. A meta-analysis of 17 studies, including studies looking at rheumatoid arthritis, joint pain, inflammatory bowel disease, and dysmenorrhea, concluded that over a 3–4 month period omega-3 supplementation reduced joint pain intensity, duration of morning stiffness, number of tender joints, and reliance on nonsteroidal anti-inflammatory drugs (NSAIDs) (Goldberg & Katz, 2007).

Boswellia can significantly reduce inflammation by inhibiting the activity of enzymes that produce pro-inflammatory substances. In an eight-week double-blind, randomized, placebo-controlled trial, *Boswellia serrata* extract taken by 15 patients with osteoarthritis in the knee led to decreased knee pain, increased knee flexibility, and increased walking distance, as well as less frequent swelling in the knee compared to the placebo group (Kimmatkar et al., 2003).

Grape seed extract has been found to be superior to indomethacin, a commonly used NSAID, for reducing levels of interleukin-1 beta, a pro-inflammatory substance involved in cartilage degeneration (Panico et al., 2006). Pomegranate extract also significantly reduces levels of pro-inflammatory cytokines and interleukin-6, another marker of inflammation, dramatically reducing symptom severity in both osteoarthritis and rheumatoid arthritis (Balbir-Gurman et al., 2011).

Superoxide dismutase (SOD) is a key antioxidant enzyme that helps protect the body from oxidative damage. In one three-week study, 20 mg per day of astaxanthin increased plasma levels of SOD by 194% and total antioxidant capacity by 125% in people with obesity (Choi et al., 2011). Increasing levels of antioxidant protection can help decrease tissue damage that may lead to increased and persistent inflammation, further tissue damage, pain, swelling, and reduced mobility, as well as a range of chronic health conditions related to systemic inflammation.

## Ingredients

### Each softgel contains:

Fish oil (anchowy sardine and/or mackerel)	973 ma
	570 mg
l otal omega-3 fatty acids	500 mg
Eicosapentaenoic acid (EPA) 33	32.5 mg
Docosahexaenoic acid (DHA)16	67.5 mg
Theracurmin <sup>™</sup> curcumin⁺ from turmeric	
(Curcuma longa) (rhizome)	.30 mg
<sup>†</sup> A highly bioavailable form of curcumin – the most active curcu in turmeric.	minoid
Boswellia extract (Boswellia serrata) (gum oleoresin)	
(60% boswellic acids)6	32.5 mg
Astaxanthin (Haematococcus pluvialis) (whole)	1 mg
InflamRelief™ complex:	
grape (Vitis vinifera), pomegranate (Punica granatum), strawl	berry
(Fragaria vesca), cranberry (Vaccinium macrocarpon), bluebe	erry
(Vaccinium corymbosum), raspberry (Rubus idaeus), bilberry	/
(Vaccinium myrtillus) (fruit)	.50 mg

### Dosage

**Recommended adult dose:** 1–2 softgels, 2 times daily or as directed by a health care practitioner.

### Cautions

Consult a health care practitioner prior to use if you are pregnant, are taking antiplatelet medication or blood thinners, have gallstones or a bile duct obstruction, or have stomach ulcers or excess stomach acid. Hypersensitivity (e.g., allergy) has been known to occur; in which case, discontinue use. Some people may experience mild gastrointestinal disturbances such as diarrhea, abdominal pain, heartburn, nausea, and vomiting; in which case, discontinue use. Keep out of the reach of children.

### References

Balbir-Gurman, A., Fuhrman, B., Braun-Moscovici, Y., et al. (2011). Consumption of pomegranate decreases serum oxidative stress and reduces disease activity in patients with active rheumatoid arthritis: a pilot study. *Isr Med Assoc J*, 13(8), 474-9.

Choi, H., Kim, J. H., Chang, M. J., et al. (2011). Effects of astaxanthin on oxidative stress in overweight and obese adults. *Phytotherapy Research*, 25(12), 1813-1811.

Deodhar, S., Sethi, R., Srimal, R. (1980). Preliminary study on antirheumatic activity of curcumin (diferuloyl methane). *Indian J Med Res*, 71, 632-634.

Goldberg, R. J., & Katz, J. (2007). A meta-analysis of the analgesic effects of omega-3 polyunsaturated fatty acid supplementation for inflammatory joint pain. *Pain*, 129, 210-23.

Henrotin, Y., Priem, F., Mobasheri, A. (2013). Curcumin: a new paradigm and therapeutic opportunity for the treatment of osteoarthritis: curcumin for osteoarthritis management. *Springerplus*, 2(1), 56.

Kanai, M., Imaizumi, A., Otsuka, Y., et al. (2012). Dose-escalation and pharmacokinetic study of nanoparticle curcumin, a potential anticancer agent with improved bioavailability, in healthy human volunteers. *Cancer Chemother Pharmacol*, 69(1), 65-70.

Kimmatkar, N., Thawani, V., Hingorani, L., et al. (2003). Efficacy and tolerability of *Boswellia* serrata extract in treatment of osteoarthritis of knee--a randomized double blind placebo controlled trial. *Phytomedicine*, 10(1), 3-7.

Panico, A. M., Cardile, V., Avondo, S., et al. (2006). The in vitro effect of a lyophilized extract of wine obtained from Jacquez grapes on human chondrocytes. *Phytomedicine*, 13(7), 522-6.

Shimatsu, A., Kakeya, H., Imaizumi, A., et al. (2012). Clinical application of "curcumin", a multifunctional substance. *Anti-Aging Med*, 9(2), 75-83.

