



Q/ Does turmeric relieve inflammatory conditions?

EVIDENCE-BASED ANSWER

A/ YES, but data aren't plentiful. Limited evidence suggests that turmeric and its active compound, curcumin, are effective for rheumatoid arthritis and other inflammatory conditions (strength of recommendation [SOR]: C, primarily low-quality cohort studies with small patient numbers).

Curcumin has shown limited benefit

for patients with psoriasis, inflammatory bowel disease (IBS), inflammatory eye diseases, familial adenomatous polyposis, and kidney transplantation (SOR: B, small, short randomized controlled trials [RCTs]).

No evidence indicates that curcumin helps patients with human immunodeficiency virus (HIV) (SOR: B, single RCT).

Evidence summary

Although extensive in vitro and animal studies have analyzed the effect of curcumin on inflammation and inflammatory mediators (including inhibition of lipoxygenase, cyclooxygenase-2, leukotrienes, thromboxane, prostaglandins, and tumor necrosis factor),¹ few human studies have looked at patient-oriented outcomes.

■ **Rheumatoid arthritis.** One very small (N=18) double-blind crossover study showed a statistically significant improvement in morning stiffness, walking time, and joint swelling in rheumatoid arthritis patients taking curcumin.²

■ **Psoriasis.** A cohort study demonstrated that curcumin applied topically in a gel formulation to patients with psoriasis resulted in either resolution or reduction in psoriatic plaques after 8 weeks of treatment.³

■ **IBS.** Two studies have found curcumin to have a positive effect on patients with IBS. A cohort study (N=10) of patients with ulcerative colitis or Crohn's disease demonstrated symptomatic improvement (more formed stools, less frequent bowel movements, and less abdominal pain and cramping) after consuming curcumin for 2 and 3 months, respectively.⁴ A randomized, double-blind, multicenter trial (N=89) showed that 6 months of daily cur-

cumin improved the clinical activity index and maintained remission in patients with ulcerative colitis.⁵

■ **Inflammatory eye diseases.** A cohort study of 32 patients found that curcumin was as effective as corticosteroids for chronic anterior uveitis (as demonstrated by improved vision, decreased keratic precipitates, and a break of synechiae assessed by slit lamp examination).⁶ Another small cohort study (N=5) by the same authors showed that curcumin reduced or resolved inflammatory orbital pseudotumor (as evidenced by reduced ocular swelling, normal ocular movements, and absence of diplopia).⁷

■ **Familial adenomatous polyposis.** A small cohort study (N=5) demonstrated a decrease in size and number of adenomas in patients with familial adenomatous polyposis after a mean of 6 months of treatment with curcumin, although patients received quercetin concurrently during the treatment period.⁸

■ **Kidney transplantation.** A cohort study followed 43 dialysis-dependent cadaver kidney recipients who had taken curcumin for 1 month. Investigators observed reduced acute rejection and neurotoxicity over the course of 6 months.⁹

■ **HIV.** Curcumin didn't reduce viral load or improve CD4 counts in 40 HIV patients

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Curcumin has shown some benefit for rheumatoid arthritis, psoriasis, and irritable bowel syndrome.

CLINICAL INQUIRIES

in the single study identified in a Cochrane Review.¹⁰

Dosage and adverse effects

Dosing varied across the studies reviewed in this Clinical Inquiry, but generally was 500 to 1000 mg, 1 to 3 times daily. Curcumin doses as high as 12,000 mg daily have been given in experimental settings without significant adverse events. Minor gastrointestinal side effects, including nausea and diarrhea, have been reported.¹¹

Recommendations

The National Center for Complementary and Alternative Medicine of the National Institutes of Health states that little reliable evidence exists to support the use of turmeric for any health condition because few clinical trials have been conducted. Preliminary findings from animal and laboratory studies suggest that curcumin may have anti-inflammatory and anticancer properties, but these findings have not been confirmed in people.¹² **JFP**

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