
CURCUMIN (Turmeric) Fact Sheet [G]

Bottom Line:

Some research indicates that curcumin, the active ingredient in turmeric, may have benefits for cognitive health, depression, and anxiety. While it's generally safe, its bioavailability is a significant issue, and more research is needed. It could be considered for patients with mild to moderate symptoms who prefer natural treatments.

FDA Indications:

None.

Off-Label Uses:

Depression; anxiety; cognitive health.

Dosage Forms:

Capsules: 250 mg, 500 mg, 1000 mg.

Dosage Guidance:

Usual dose is 500–1000 mg/day divided BID, although doses up to 1500 mg/day have been studied.

Monitoring: No routine monitoring recommended unless clinical picture warrants.

Cost: \$

Side Effects:

- Most common: Nausea, abdominal pain, diarrhea, constipation; generally well tolerated.
- Serious but rare: Kidney stones.
- Pregnancy/breastfeeding: Not enough data to recommend.

Mechanism, Pharmacokinetics, and Drug Interactions:

- Proposed mechanisms include anti-inflammatory, antioxidant, and neuroprotective effects.
- Poor bioavailability; drug metabolism pathway unclear; $t_{1/2}$: 6–7 hours.
- Drug interactions: Limited information, but may affect the metabolism of some drugs due to interaction with CYP450 enzymes.

Clinical Pearls:

- A recent meta-analysis of 10 small studies (Fusar-Poli L et al, *Crit Rev Food Sci Nutr* 2020;60(15):2643–2653) concluded that curcumin was likely effective for depression and anxiety, with effect sizes comparable to standard antidepressants—in the small to medium range (0.3–0.7).
- Another meta-analysis (Zhu LN et al, *Phytother Res* 2019;33(3):524–533) reported that curcumin was found to improve working memory and attention in otherwise healthy older adults—but not in those with Alzheimer's.
- Due to its poor bioavailability, curcumin is often combined with piperine (black pepper extract) or other substances to enhance absorption.
- Some curcumin products claim to help resolve kidney stones, but naturally occurring oxalate in turmeric can bind to calcium to form calcium oxalate kidney stones.

Fun Fact:

Turmeric, which contains curcumin, has been a staple of traditional Indian and South Asian cuisine and medicine for thousands of years. It's what gives curry its distinctive yellow color.