

Turmeric—Is a teaspoon enough?

By Elizabeth Goldstein, MS, RDN, CDN

Interest and awareness in alternative medicine—including food as functional medicine—is growing at an exponential rate. Unfortunately, in the realm of functional nutrition, scientists often do not yet have a precise answer to the question “How much is enough?” Yet, as dietitians, we are often faced with answering questions about this fast growing segment of nutrition. How turmeric functions in the body is one example of this evolving, complex, and compelling aspect of dietetics.



Turmeric is made from the root of the turmeric plant, grows in India and Indonesia, and is a member of the ginger family.^{1,2} It is often an ingredient in curry dishes from South Asia and the Middle East; is used as a yellow coloring agent in mustard, cosmetics, and other products; and has been used for centuries in India for its healing properties.²⁻⁴ The most active component in turmeric is curcumin.^{2,3} It is this curcuminoid



that is associated with turmeric’s possible healing properties. The spice may have potent anti-inflammatory and anti-cancer properties and may also decrease cramping.²⁻⁴ It has been studied and/or used in disease prevention and treatment of conditions including inflammatory bowel disease, cancer, arthritis, Alzheimer’s disease, asthma, cystic fibrosis, cardiovascular disease, allergies, psoriasis, and diabetes.^{2,3}

The impact turmeric may have on different diseases poses some interesting questions. Is it safe? Are there dosing recommendations? Can a person eat enough to reap the possible rewards, and is that amount palatable to different ethnic cultures? What, if anything, affects its bioavailability?

ALTHOUGH TURMERIC HAS BEEN USED FOR CENTURIES IN CERTAIN CULTURES AND IN AYURVEDIC AND CHINESE MEDICINE, AND RESEARCH SUGGESTS ITS POSSIBLE BENEFITS, PRESENTLY THERE ARE NO STANDARD RECOMMENDATIONS.³⁻⁵

One set of usage guidelines, offered by the University of Maryland Medical Center Website, suggests the following servings⁵:

- Cut root: 1.5 to 3 g/d
- Dried, powdered root: 1 to 3 g/d
- Standardized powder (curcumin): 400 to 600 mg, TID
- Fluid extract (1:3): 30 to 90 drops/d
- Tincture (1:2): 15 to 30 drops, 4 times/d

When recommending turmeric, some potential treatments and conditions that should be considered include^{2,3,5,6}:

- Anticoagulant/Antiplatelet drug therapy, due to turmeric’s ability to decrease platelet aggregation
- Diabetic drugs, due to an increased risk of hypoglycemia

- Stomach ulcers, due to a possible increase in stomach acid
- Gallbladder disease, gallstones, or obstruction of the bile passages
- Drugs that reduce stomach acid
- Pregnant and lactating women
- Cystic fibrosis
- Chemotherapy, due to possible pro-oxidant activity
- Gastric distress with greater intakes of turmeric

Although turmeric in food is generally considered safe, it is not always well absorbed.^{2,7} Ways to increase absorption and bioavailability include using bromelain and piperine.^{2,5} In addition, it may be difficult to consume the suggested amounts listed earlier. Some suggestions to help your clients increase turmeric intake include choosing mustards based on their bright yellow color; adding turmeric powder to protein shakes, smoothies, juices, and drinks—Executive Chef of Edi and the Wolf, Eduard Frauneder, adds turmeric juice to his mulled wine⁸— and using portable items that contain turmeric. Additionally, providing clients with simple recipes for sauces and dishes, in addition to curry recipes, is an excellent starting point. While clients may have preconceived notions about turmeric, with some creativity—one of the many skills required of dietitians—an increase in turmeric consumption is possible.

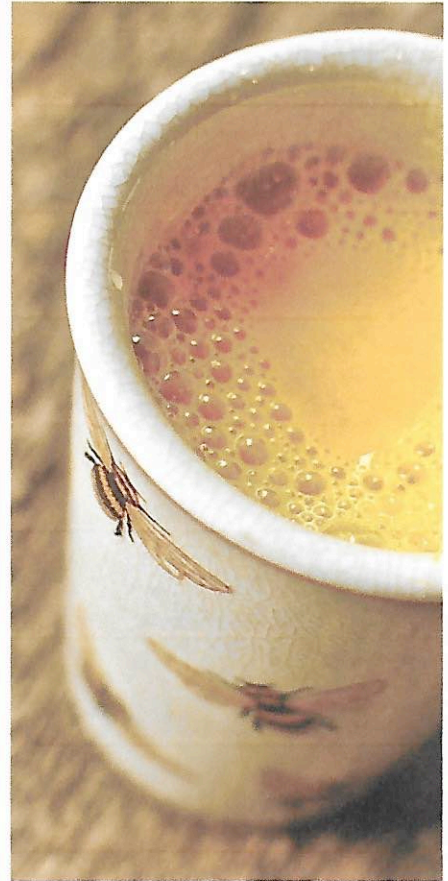
AS DIETITIANS, WE ARE OFTEN FACED WITH ANSWERING QUESTIONS ABOUT THIS FAST GROWING SEGMENT OF NUTRITION. HOW TURMERIC FUNCTIONS IN THE BODY IS ONE EXAMPLE OF THIS EVOLVING, COMPLEX, AND COMPELLING ASPECT OF DIETETICS.

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References:

1. Arthritis Foundation. Turmeric. <http://www.arthritis.org/living-with-arthritis/treatments/natural/supplements-herbs/guide/turmeric.php>. Accessed February 1, 2016.
2. Oregon State University Linus Pauling Institute Micronutrient Information Center. <http://lpi.oregonstate.edu/mic/dietary-factors/phytochemicals/curcumin>. Accessed February 1, 2016.
3. Aggarwal B, Harikumar K. Potential therapeutic effects of curcumin, the anti-inflammatory agent, against neurodegenerative, cardiovascular, pulmonary, metabolic, autoimmune and neoplastic diseases. *Int J Biochem Cell Biol.* 2009;41(1):40-59.
4. Prasad S, Aggarwal BB. Chapter 13. Turmeric, the golden spice. From traditional medicine to modern medicine. In: Benzie IFF, Wachtel-Galor S, eds. *Herbal Medicine: Biomolecular and Clinical Aspects*. 2nd ed. Boca Raton, FL: CRC Press/Taylor & Francis; 2011.
5. University of Maryland Medical Center. Turmeric. <https://umm.edu/health/medical/altmed/herb/turmeric>. Accessed February 1, 2016.
6. Nebille K, Ecker M. Spice interactions. *Food & Nutrition.* 2015;19-20.
7. Gupta S, Patchva S, Aggarwal B. Therapeutic roles of curcumin: lessons learned from clinical trials. *AAPS J.* 2013;15(1):195-218.
8. Arter N. Top chefs share their favorite holiday cocktails. Delicious ingredients and surprising mixes. *Observer.* <http://observer.com/2015/12/top-chefs-share-their-favorite-holiday-cocktails/#slide6>. Accessed February 1, 2016.



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