



# Turmeric and Curcumin

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# What is the difference?

- What is turmeric?

Plant with a rhizome, underground stem, usually sold ground, mostly grown in India. Common in India cuisine. One of the spices in curry. Flavor is like very mild pepper. Price is very low.



# What is the difference?



- What is curcumin?
- An active ingredient in turmeric, only found in turmeric.
- ½ tsp of turmeric contains about 100 mg of curcumin
- Pills much more expensive – some are just turmeric pills not pure curcumin

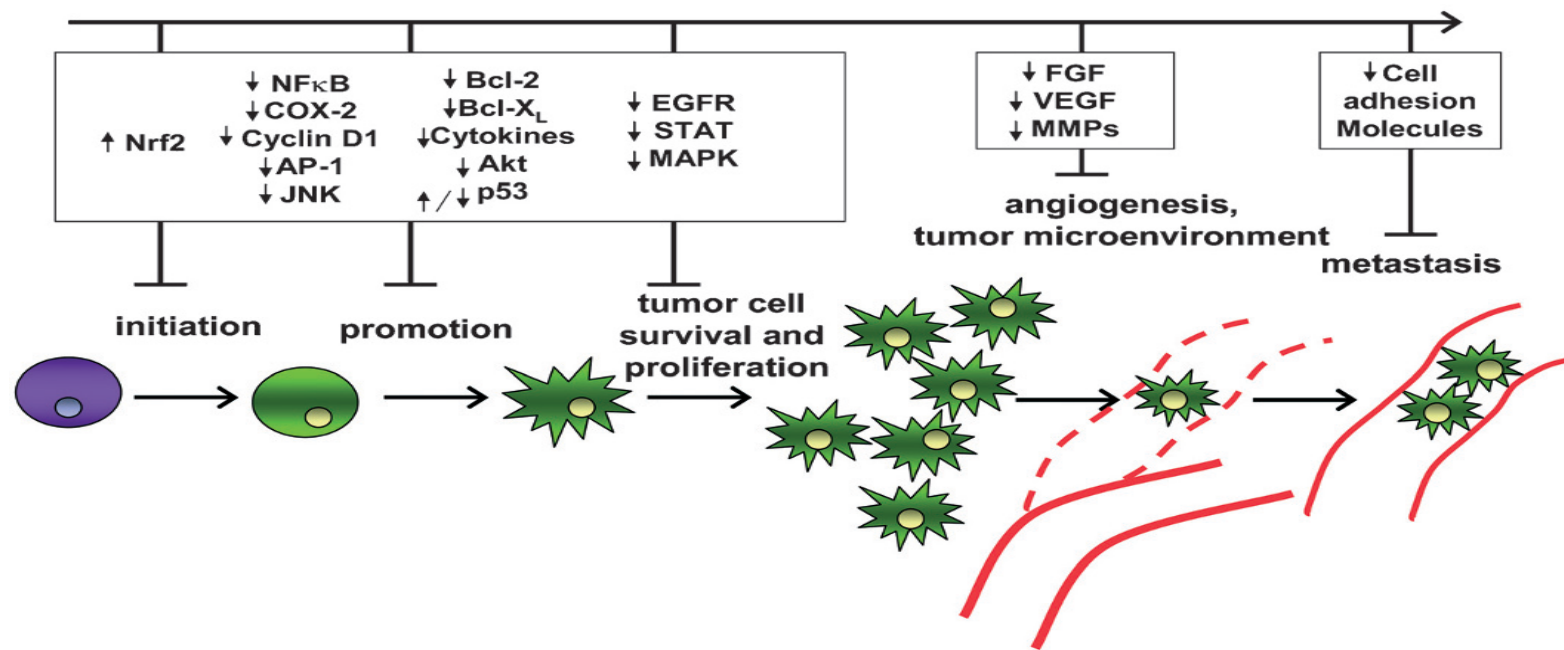
# How much turmeric/curcumin is needed?

- Some studies used high amounts of 4g to 8 g of curcumin that would be over 6 Tbsp of turmeric or many pills.
- Even ½ tsp of turmeric has been studied to down regulate inflammatory factors
- No known toxicity and well tolerated

Monoclonal gammopathy of undetermined significance, smoldering multiple myeloma, and curcumin: A randomized, double-blind placebo controlled cross-over 4g study and an open-label 8g extension study  
Terry Golombick,<sup>1\*</sup> Terrence H. Diamond,<sup>1</sup> Arumugam Manoharan,<sup>2</sup> and Rajeev Ramakrishna<sup>2</sup>

# The Science

## Stages in tumor progression inhibited by curcumin



Curcumin: From ancient medicine to current clinical trials  
H. Hatchera, R. Planalp, J. Chob, F. M. Tortia,d,\* and S. V. Tortic,d

# How might turmeric help?

## General

- Anti-inflammatory effects
- Antioxidant effects

## Specific to myeloma

- Decreasing urine protein and free light chains
- Down regulation of NF- $\kappa$ B and IL-6 (inflammatory factors)

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# Recommendation: Talk to your medical team about all supplements

Curcumin, as well as other supplements may interact with other medications.

They may also have synergistic effects.



# Focus on whole foods

Remember turmeric is only one spice, lots of other spices have benefits

Lots of foods are anti-inflammatory as well





# Anti-inflammatory diet

- 4 cups of a variety of fruits and mostly vegetables daily
- Sources of omega three fats, like wild salmon, grass fed beef, walnuts
- ½ cup or more of beans daily
- 1 handful of nuts daily
- Spices
- Plenty of water and herbal teas



# Foods with turmeric

- Mustard
- Curry and Indian cuisine
- Used to color many foods like yellow cake, popcorn, butter and chicken broth



# Breakfast ideas

1. Mix  $\frac{1}{2}$  tsp of turmeric with eggs for veggie omelet
2. Add  $\frac{1}{2}$  tsp turmeric to smoothie



# Lunch ideas

1. Mix turmeric in to mayo and make egg salad
2. Mix turmeric in mustard and spread on your sandwich
3. Mix with your salad dressing or salsa



# Dinner ideas

Rice



Chili or pasta sauce

Vegetable stir fry



# Beverages



- Add to juice
- Drink as a tea or golden milk



# Recipe sources

- <http://canadianhealthbible.com/ginger-coconut-turmeric-juice>
- <http://monamifood.wordpress.com/2013/07/04/scrambled-eggs-with-turmeric-and-black-pepper/>
- <http://www.wisewomantradition.com/wisewomanweb/2011/04/golden-milk-an-ancient-healing-remedy.html>

# More information

- Bharat Aggarwal – researcher at MD Anderson

<https://www.youtube.com/watch?v=Zht2Q5D0RdY>

<https://www.youtube.com/watch?v=Bnnm15CHRi8>



Questions?

