



**LifeExtension**<sup>®</sup>  
Stay Healthy, Live Better

CURIOUS ABOUT  
**CURCUMIN?**

The golden spice that  
everyone should take!

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# The Golden Spice that Makes Big Pharma Nervous

**T**urmeric is the golden spice that spans cultures, making all sorts of food appear more appetizing and taste delicious. It's also the spice that makes big pharma a little nervous.

Well, if there's anything in the natural world that could take away some of the "business" of the drug industry, it is turmeric.

Turmeric has a natural golden color because it contains curcumin, a nutrition superstar that's been used for over 4,000 years! Curcumin provides enormous health-promoting effects for almost every organ system.<sup>1,2</sup>

Just take a look at the documented benefits of consuming turmeric, and its rock star curcumin. It's easy to see why big pharma is nervous about this health-promoting, savory spice.

## Curcumin's Whole Body Benefits<sup>3-10</sup>



- **Eases inflammation.**
- **Supports healthy cell growth.**
- **Helps maintain a robust immune system.**
- **Promote healthy brain function, including cognition and memory.**
- **Supports healthy blood throughout the body by maintaining healthy platelet function.**
- **Defends against the damaging effects of estrogen-mimicking chemicals, such as those found in plastics and aerosols.**
- **Supports healthy bowel function and joint health.**

Let's take a closer look at curcumin's beneficial effects in the joints, brain, and the skin.



Turmeric is an herbaceous perennial plant native to southwest India. It's golden in color and adds its appetizing hue to soups, stews, rice and noodle dishes, and meats. The flavor is very distinct, making it one of the most recognized spices in the world.



The spice is made by boiling the plant's rhizome (root system), drying it in hot ovens, and then grinding it into a fine, golden powder. When combined with additional spices, the result is the world famous curry — a complex combination of spices or herbs, usually including fresh or dried hot chilies.



The primary active ingredient in turmeric is curcumin, which has a distinctly earthy, slightly bitter, slightly hot peppery flavor and a mustardy smell. Curcumin, about 10% of the dried turmeric spice, is a nutrition superstar.

# Analyzing the Spice

Curcumin about 10%



Turmeric spice



90% other compounds



But there's not enough curcumin available in a few pinches of turmeric to make much of a difference. Supplementing with a high-quality curcumin product is the only way to obtain it in a high enough dose to fully reap its benefits.

Even though curcumin is a part of turmeric, they both have unique properties when separated. Here's an easy-to-follow breakdown of turmeric versus curcumin following separation:

## Turmeric

Golden color spice grown in India and Asia. It's closely related to ginger. It dates back 5,000 years ago. To make the spice powder, turmeric's rhizome (root system) is cleaned, boiled, and then dried.

As a culinary spice, turmeric is mild and able to complement the flavor of a wider variety of foods.

Turmeric is considered an herbal supplement in Ayurvedic and Chinese medicine tradition. It possesses a number of health properties.

Natural turmeric powder has low bioavailability. This means that most of the turmeric ingested does not get absorbed by the intestines. Unfortunately, many of the health benefits of turmeric are hard to obtain.

## Curcumin

Curcumin belongs to a family of health-promoting compounds called curcuminoids. It's probably the most bioactive and health-promoting curcuminoid found in turmeric. It makes up to less than 10% of dried turmeric.

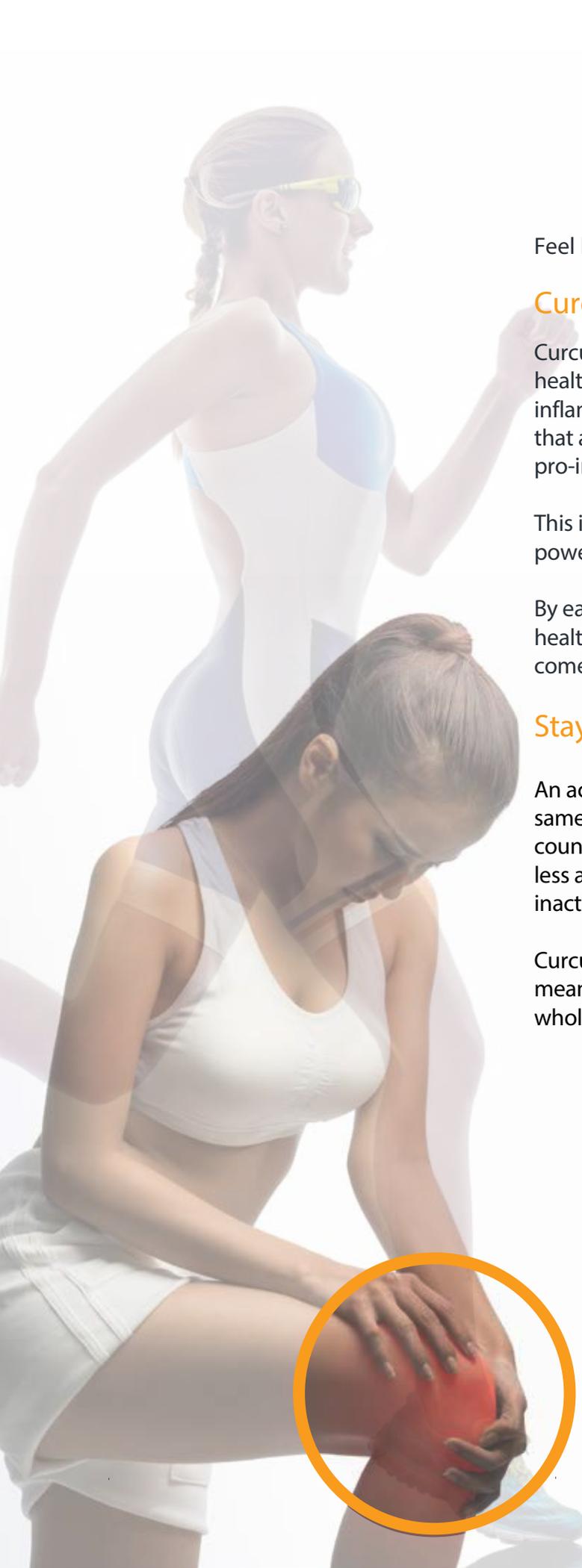
Curcumin has a bolder flavor, limiting its use in recipes.

So here's what we suggest: Cook with turmeric and supplement with curcumin.

Curcumin also has low absorption. However, researchers have significantly improved its absorption by adding natural turmeric oils. This is great news.



Enjoy Healthy Joints  
with Curcumin



Feel like your joints could use some TLC?

## Curcumin to the Rescue!

Curcumin supports joint health by promoting your body's healthy response to inflammation by inhibiting key inflammatory factors such as NF-kappaB, a protein molecule that acts like an "on-switch" in genes that govern the body's pro-inflammatory responses.

This is important to note: Curcumin has been shown to exert powerful inhibitory effects on NF-kappaB activation.<sup>11-13</sup>

By easing inflammation, curcumin can help your joints stay healthy, and help you stay active for many more years to come!

## Stay Active, Live Longer

An active lifestyle is essential to living healthier, longer. The same old story is played out over and over again in this country - as people age into their 60s and 70s, they become less and less active. It doesn't take long for the ill-effects of inactivity to set in.

Curcumin can help keep your joints healthy, which probably means you're more likely to stay active. Which is why no whole body health regimen is complete without it.

**Add curcumin and ease inflammation and experience healthier joints.**



See a Doctor if you have the Following Joint Symptoms

**Pain, swelling, or stiffness in one or more joints**



**Joints that are red or warm to the touch**



**Joint tenderness or stiffness that never goes away**



**Difficulty moving a joint or doing daily activities**



**Joint symptoms that cause you concern**

## 5 Foods that are good for joints

### Tart cherries

Many people claim that just two tablespoons of the concentrated juice is all they need for healthier joints. By the way, sweet cherries may help a little but they are not as effective as the tart varieties.

### Ginger

In India, doctors use ginger for muscle and joint health with great results. They recommend 500 to 1,000 mg a day of a ginger extract. Although cooking with ginger is recommended, the spice probably won't provide enough of the key compounds.

### Flax seeds and oil

Freshly ground flax seeds and cold-pressed flax oil contain plentiful amounts of omega-3 fatty acids. Polyunsaturated fats like the omega-3s help to ease inflammation throughout the body.

### Celery seed

Celery seeds contain many health-promoting compounds, and one in particular, called apigenin, is quite powerful. It also has the added benefit of boosting cell protection. Add celery seeds to soups, stews, or as a salt substitute in recipes.

### Raw walnuts and walnut oil

Raw walnuts and walnut oil contains the same omega-3 fatty acids as flax oil. A delicious, pain-reducing recipe is your favorite greens dressed with flax oil and vinegar, then topped with raw walnuts.

[www.prevention.com](http://www.prevention.com)  
[www.arthritis.org](http://www.arthritis.org)



Support Healthy  
Brain Aging with  
Curcumin

There are a number of factors that cause your brain to age. These include the cumulative effects of environmental factors and genetics.<sup>14-16</sup>

Curcumin can help support healthy brain aging. For example, studies demonstrate curcumin's ability to improve cellular energy and to enhance cellular protection. This means that with curcumin, your brain cells can function at an optimal level - regardless of age.<sup>17</sup>

Now, here's where it gets interesting. Much of curcumin's value in the brain may relate to its ability to turn on genes that trigger the growth of new brain cells. This is really exciting — a discovery like this has far-reaching implications.

In one study, researchers gave curcumin to old mice. After a few weeks, the old mice experienced a significant increase in new brain cells, particularly in areas of the brain responsible for memory.<sup>18</sup> Now that's impressive.

And this isn't just in mice. For us humans, adding turmeric (which contains curcumin) to meals can improve short-term memory for up to 6 hours after eating.<sup>19</sup> That's right ... better memory for 6 hours! College students should know about this.

In other studies, curcumin improved learning and memory ability. In these studies, mice were given curcumin, followed by memory and neurochemical tests. Across the board, mice taking curcumin did a lot better on these tests than mice without it.<sup>20</sup>



So are you up for a memory test? Let's go to the next page and see how you score on a classic memory test.



### Why Mice are Important?

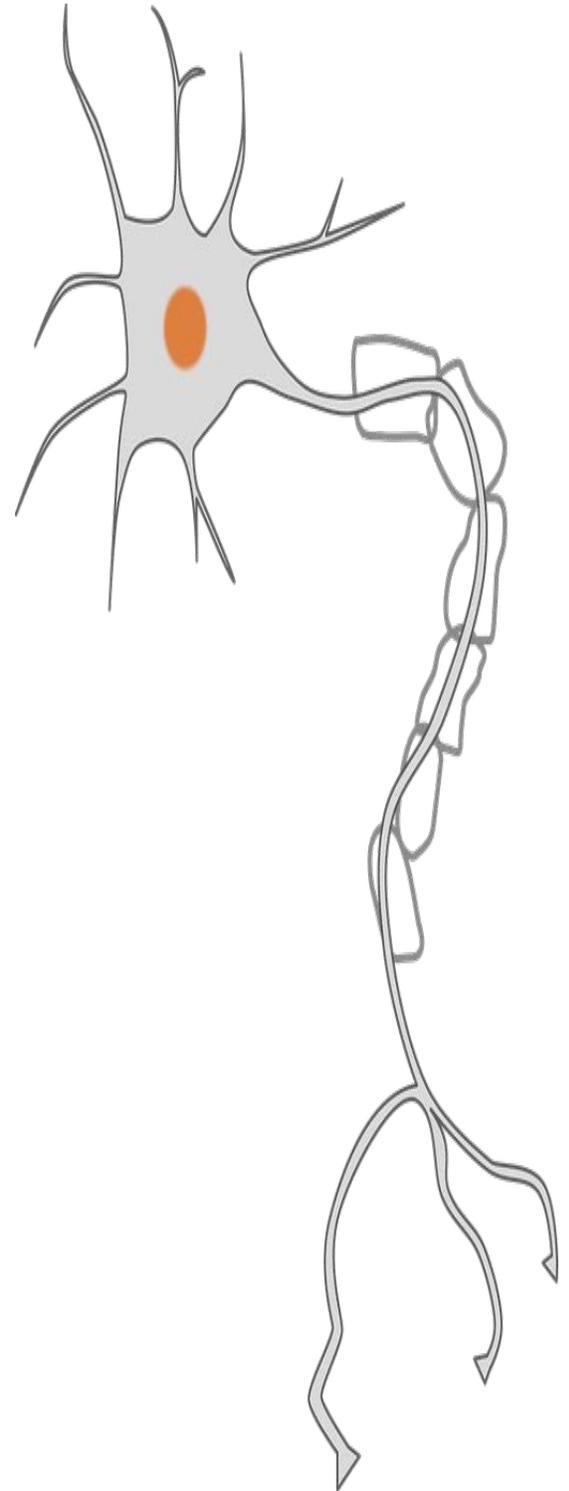
In research, mice are wonderful models for humans. Since we share many biochemical pathways with mice, if a supplement is tested in mice and a certain result is observed, then that provides support for testing it in humans.

# Test Your Memory ...

and if it's not very good try supplementing with curcumin!

A simple memory quiz. Slowly read each line once and then look away and try to recall the numbers. Each line comes with a numbered score. The last line that you can recall is your score.

4 8 6	10 points
2 5 7 8	9 points
5 8 2 5 7	8 points
9 1 3 4 0 6	7 points
6 7 2 8 4 3 8	6 points
1 9 8 3 0 7 5 2	5 points
0 9 3 7 0 4 6 9 1	4 points
6 6 9 4 6 2 7 8 1 0	3 points
9 6 2 4 3 7 2 0 1 9 5	2 points
6 3 1 0 9 9 7 1 4 2 6 5	1 point



Below are supplement suggestions for improving memory based on your performance. The better you did, the fewer suggestions we provide. But if you didn't do so well, you'll get more suggestions. Makes sense right?

- 1-3 points** *Excellent.* No memory supplement suggestions.
- 4-6 points** *Good.* Consider a curcumin extract.
- 7-9 points** *Needs work.* Consider curcumin and blueberry extracts.
- 10 points** *Poor.* Consider curcumin, blueberry, and a special form of magnesium called magnesium threonate.
- All points** *Play memory games.*



## Skin Care with Curcumin A Soothing Face Mask

# Did you know that turmeric makes a great face mask?

Well, it's actually a flour and turmeric mixture that can be applied to your face and neck. With daily use, your face will feel smooth and soft.

You can make the mixture in advance and store it in a cool, dry place. When you're ready to apply it, just add a little oil and water and voila ... a wonderful face mask!

## Ingredients

1. ½ cup garbanzo (chickpea) flour
2. 1 ½ Tbsp. ground turmeric
3. 5 drops of your favorite beneficial oil – almond, avocado, grapeseed, or hemp seed oils work the best
4. 1-2 tsp filtered water

## Directions

1. Mix the flour and turmeric and save in an airtight container until you are ready to prepare your mask.
2. To prepare the mask, mix 1 Tbsp. of the flour mixture with 5 drops of oil and enough water to make a paste.
3. Smooth the mixture on your face and neck, avoiding the eyes.
4. Let the mixture remain on your face until it dries (about 15 minutes) and then wash it off in the shower.
5. Make sure you remember to take your shirt off before you put this mask on. Avoid getting this mask on your clothes because it might stain!

**Sit back and relax!** After using this mask your skin will feel unbelievably soft, firm, supple and radiant!

**If your skin is oily, try this:** Combine 1 Tbsp. sandalwood powder, a pinch of turmeric, and 3 tablespoons of orange juice and apply the paste to your face. Leave it on for about 10 minutes, then rinse with lukewarm water.

www.abcnews.go.com

## Additional Skin Care Regimens with Curcumin

### Turmeric for facial hair

Mix turmeric with chickpea flour. Leave on for 10-15 minutes, then wash off in light circular motions.

### Turmeric as a deep cleanser

Mix chickpea (or rice) flour with turmeric powder in equal proportions. Add just enough raw milk or plain yogurt to make a paste. Apply evenly to the face and leave on for about 10-15 minutes; wash off with warm water.

### Turmeric as a skin brightener

Mix 2 tablespoons of sandalwood powder, a pinch of turmeric powder and a few drops of lemon juice. Add enough milk to make a paste. Apply this mask on your face and neck; wash off with warm water once dry.

*People swear by their skin care regimens using curcumin; however, there's very little research evidence to support their claims. But that's ok, subjective evidence still holds some weight.*

# Are you taking the golden spice?

Joint Health



Skin care



## CURCUMIN THE GOLDEN SPICE



Memory and mental sharpness



Robust immune system



Healthy heart

It's a great idea to cook with turmeric and curcumin. But obtaining all of the health benefits attributed to them really requires a high quality supplement. The problem is that curcumin does not absorb very well ... it needs some help. A few years ago, an exciting "next generation" curcumin was introduced that absorbs up to 7 times better.

If you'd like to learn more about curcumin,  
call Life Extension's Wellness Specialists at  
**1-888-236-0683.**

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