

# **Growing Younger With Super Foods**

**The Synergy Matrix™ Guide to Functional Foods**

**Marcus L. Gitterle, M.D.**

The information contained in this book is based upon the research and the personal and professional experience of the author. It is not intended as a substitute for consulting with your physician or other healthcare provider. Any attempt to diagnose or treat an illness should be done under the direction of a healthcare professional.

Copyright © 2011 by Marcus L. Gitterle, M.D. All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written consent of the copyright owner.

## ***Contents***

Introduction .....	4
Tomatoes For Cancer Prevention .....	6
Grow Your Own Brain Protection .....	8
Ginger, the Super Spice .....	11
Tea - Multi-Function Healing .....	13
It's Not Just a 'Cup-a-Jo' .....	17
Curry, It's the New Black .....	20

## Functional Foods and Anti-Aging

I am thankful that we are seeing the end of the era when we looked to medications as the answer for every ill. Moreover, I feel that anti-aging is finally coming of age, with the recognition that diet, exercise, supplements and functional foods, can do more to facilitate our anti-aging goals, than drugs or even hormone replacement programs.

Functional foods make a lot of sense all around. First, they are generally the kind of foods that belong in our diet in abundance. Whole-foods, which are nutrient-dense, can substitute for foods that we ought to be avoiding, anyway.

Secondly, unlike food extracts, isolates, and worst of all, synthetic “nutrients” the nutritional benefits of functional foods are untainted, and broad-spectrum. This is key, as isolated nutrients generally fail to perform as well as the same nutrient type contained in its original, complex nutrient matrix. There are very often, complex relationships between closely related, interacting molecules that give some food types a tremendous edge over similar extracts and supplements.

### **What foods qualify?**

When it comes to functional foods, quality is paramount. Ideally, you want to know where and how they were grown. Organic is vastly preferable, or at least grown without chemical fertilizers and pesticides, if possible. We will be talking about specifics where this is especially important. In some cases, not knowing where something was grown or prepared can be dangerous to your health, as well as our environment.

Fortunately, we live in a time of abundance and tremendous choice, when it comes to our food. In addition, we are blessed with more and more, local food, which is truly key to personal abundance, and high-level wellness. Local, artisanal farming is making a comeback, and I think this trend is by no means a fad.

There is a key symbiosis between consumers and the farmers who grow our food, and we have ignored it for too long, to the detriment of our health. By reclaiming the connection between growers and consumers, we rekindle a sacred bond as

well as establish vital communication about the kind of quality we desire. Farmers will grow what we demand, but they need to hear us.

One of the best ways to make sure they hear us is to attend your local farmers market. Make this a weekly ritual if you can possibly do so. Few things will be more supportive of your anti-aging and wellness goals, than making this sacred, weekly pilgrimage, to meet with the folks who grow your food. It's good for body and soul.

An abundant life starts with living food, so lets take a look at some functional foods that can provide richness, vitality, disease prevention, and specific kinds of support to our bodies, enhancing our wellbeing.

## Tomatoes For Cancer Prevention

Imagine an antioxidant 100 times stronger than vitamin E, potentially capable of helping prevent cancer in the lung, prostate and stomach, that just happens to come in one of the most delicious packages available. That's Lycopene, a "carotenoid" like vitamin A, but a lot more powerful, in terms of anti-oxidant function, and it's capable of tricks that vitamin A can't match.

In fact, Lycopene has been called, "A Safer vitamin A," because it lacks the possibly cancer-promoting side effects vitamin A has shown in some populations. Besides being safe, and showing evidence of powerful and unique benefits, such as the ability to turn on "anti-cancer" genes in some cells, this compound illustrates the principle of functional foods very well, which is why I have placed it first on our list to discuss.<sup>1</sup>

You see, lycopene was discovered, in part because scientists were trying to figure out why tomato consumption lowered risk of certain cancers. They went searching for a mechanism to explain the effect, and quickly narrowed it down to lycopene, which is quite abundant in tomatoes. In fact, it's what gives tomatoes their red color.

As with many other similar stories in the functional food arena, they ran into a conundrum; it seemed clear that lycopene was the reason for the anti-cancer effects of tomatoes, but when you take the lycopene out of the tomato - isolate it - the effect isn't nearly as great.

It turns out that by far the best way to enjoy the benefits of lycopene, is to eat tomatoes. What's really great in this regard, is that it has also been determined that it doesn't matter how they are prepared. They can be fresh, frozen, boiled, made into paste, or spaghetti sauce. It doesn't matter, the benefits will be realized.

How much is needed to obtain the anti-oxidant and anti-cancer benefits of lycopene? Different numbers get thrown around, but I think a reasonable number is 1-2 medium tomatoes per week, in any form. So, how about a tomato salad on Monday, drizzled with balsamic vinegar? Then, perhaps a no-added-carbs tomato sauce over eggplant sauteed in olive oil, on Thursday.

Other suggestions for enjoying the health benefits of lycopene:

- Homemade tomato soup or Gazpacho

- Salsa on your next omelette
- Chicken breasts with tomato compote (or salsa)
- Salisbury steak
- Tomato juice

Enjoy your tomatoes, and take advantage of one of nature's most powerful antioxidants and cancer fighters!

## Grow Your Own Brain Protection At Home

Did you know that 1/2 cup of fresh blueberries a day could be the best protection against loss of memory function? This is real science, and it's the kind of practical anti-aging I love. Among the anti-aging superfoods that we cover in this book, blueberries are a real superstar. I'll show you the science backing this up, and then, I'll show you how to make this a super-affordable, anti-aging treat. You may even be able to make some money doing it!

Blueberries have been on my health "radar screen" ever since studies in animals and humans began showing their potential for slowing and even reversing cognitive decline, especially memory loss.<sup>2</sup> Soon after these studies appeared, it became apparent that this amazing fruit possesses anti-cancer effects too.

Over the past few years, the reasons for these benefits have become increasingly clear. Blueberries contain several classes of very powerful compounds, which appear to work in tandem, to create numerous health benefits in [humans](#). It gets even better; this remarkable fruit has been shown to inhibit replication of the hepatitis virus, lower cholesterol, protect against brain damage caused by stroke, and even prevent urinary tract infections!

Part of the secret of their amazing effects lies in complex pigment molecules that give blueberries their deep color, called anthocyanins. In addition, they contain proanthocyanidins, pterostilbene, and resveratrol, powerful anti-oxidants also found in red grape skins. The reader will recall that resveratrol is one of the Synergy Matrix Anti-Aging Keys, and a proven, multi-function wellness workhorse. Blueberries are a very concentrated source of all these invaluable compounds, making them a true superfood.

In many ways, they behave like "super grapes," but with a key difference that is especially pertinent to the anti-aging focus of this book; namely, ounce for ounce, they elicit less insulin secretion than grapes, even though they have a fairly similar glycemic index. In fact, a study last year (2010) in *The Journal of Nutrition*, showed that they can actually help reverse insulin resistance.<sup>3</sup>

Another study, conducted by Marva Irene Sweeney-Nixon, PhD, of The University of Prince Edward Island (UPEI) in Charlottetown, P.E.I., showed this same effect, in a study of obese, middle-aged men; namely, reduction in markers of insulin resistance, and "pre diabetes," as well as in markers of inflammation.<sup>4</sup>



Perhaps most remarkable of all, are the powerful brain protective effects, now proven in multiple studies which make it clear that regular consumption strengthens brain cells, improves synaptic function, and prevents Alzheimer's Disease.<sup>5</sup>

That said, there is one downside, which is cost. 1/2 cup of blueberries per day will add a pretty big premium to one's grocery bill, especially if you follow my advice to eat only organic fruit. It is critical that any superfood that we consume regularly, especially daily, be organic, to avoid pesticide residues, heavy metals, and other environmental toxins common in non-organic produce.

What is the solution? Simple, grow your own blueberries in containers! That's right. There are numerous resources available to help get you started. Growing any of your own food is one of the best ways to enhance wellness. And, growing a "superfood" gives even more return on investment for the time and effort involved.

Container growing can even be done on a balcony. For those with more room, such as a deck, or backyard, or best of all, a home garden, it's a simple matter to add blueberries to your plant collection. Blueberries require acidic soil, making them difficult to successfully grow, in the ground, but by simply following the instructions given at these links, you can easily grow them, even in highly alkaline soil, by using one of these container-based methods.

These links will show you how to do it:

### **Video - Growing Organic Blueberries In Containers**

<http://www.youtube.com/watch?v=MnbYI4zaR48>

### **Container Blueberries: 10 Things You Need to Know**

[http://containergardening.about.com/od/vegetablesandherbs/a/Growing\\_blueberries.htm](http://containergardening.about.com/od/vegetablesandherbs/a/Growing_blueberries.htm)

### **Video - Maintaining and Pruning Your Container Blueberries**

<http://www.youtube.com/watch?v=k51O5JF48DI&feature=related>

How much will all this cost? Here is a collection from Burpee ([www.burpee.com](http://www.burpee.com)) offers a special with 4 different blueberry varieties, including early, mid and late season varieties for a multi-month annual crop, for 39.95.

This collection of plants (or any similar combination of blueberry plants), should produce about 20 pounds of fruit over the course of a year, once it's fully established. At about 20.00 per pound, for organic blueberries, in the store, that's \$400.00 worth of blueberries annually.

That's enough fruit for about 100, 1/2 cup servings. And, fruit not eaten in season, can be enjoyed frozen all year long. Just keep some reusable freezer bags handy!

Imagine the health benefits of having a home-grown supply of this brain-protecting, anti-aging superfood, for just a small initial investment. Pretty smart, I think. This is superfood made super-affordable.

## Ginger: the Super-Spice

Superfoods can be taste treats, as we have already seen. Ginger is, of course no exception. While most think of this as simply a seasoning, the well documented health benefits of this amazing root go way beyond mere seasoning. This is an anti-cancer, anti-inflammatory and anti-aging food extraordinaire.

In ancient times, ginger was so prized, one pound was considered to be worth the price of a sheep. It was revered as a natural remedy for virtually every ailment. We now know some of the biochemical reasons for this. Ginger turns out to be a powerful, natural inhibitor of inflammation.

Gingerol, one of the constituents of ginger, exerts a positive, regulatory influence on a number of our internal “switches” governing inflammation, including COX-2, NF-kB, and PKC-Alpha. This means that using this herb liberally as a seasoning, will have a positive influence on inflammation.<sup>6</sup>

How powerful is ginger with regard to this anti-inflammatory effect? Some studies have shown that it is powerful enough to protect cells against attack by substances that would otherwise cause severe inflammation. Another recent study showed that ginger was capable of protecting prostate cells from inflammation, and other studies have shown its ability to block the production of a substance that can stimulate or “feed” prostate cancer cells.<sup>7</sup>

In fact, ginger’s ability to block inflammation likely makes it a powerful preventive ally against a wide variety of cancers, including breast, uterine, cervical, prostate, and colon. It is now clearly established that cancer is directly linked to inflammation, so dietary allies against inflammation are invaluable.

As amazing as all this is, ginger can do some more mundane things, like help control inflammatory pain, such as pain due to arthritis, and even help prevent and treat headaches. One study in migraine sufferers recently showed that nearly 2/3 of patients had a good response to a ginger extract supplement, called “Nature’s Best,” with nearly 40% reporting a good or excellent outcome; not bad for a “seasoning!”

<sup>8</sup>Ginger can be prepared as a tea, by simply steeping several ginger slices in boiling water for 5-7 minutes. Such a tea can be served warm, or iced. Above all, it is best to seek out very fragrant, fresh ginger. Powdered ginger in a can or box is not likely to retain much of its medicinal value. The root will keep for an extended period in a

dry section of the refrigerator.

As an anti-aging supplement, ginger is just now coming on the radar screen. Now that inflammation is being recognized as a fundamental mechanism contributing to aging, anything that can inhibit inflammation at a cellular level is potentially of value in terms of slowing the aging process.

This is especially true of an individual on a comprehensive anti-aging program, such as the Synergy Matrix. Such a person already has oxidation and inflammation kept in check, and thus the extra benefits of food containing either anti-oxidants or anti-inflammatory substances can be much more profound.

As we learned in earlier sections of this book, substances that are capable of controlling NF- $\kappa$ B, or helping control oxidation, are likely to be of special value. Ginger, now known to possess both of these qualities, is finally living up to its age old reputation, as “being worth the price of a sheep.”

## Tea - Multi-Function Health Beverage

There are so many health claims for foods and beverages these days, that it is hard to keep things in perspective, and separate hype from fact. What are the proven benefits, if any, of tea? And importantly, of the myriad types of tea available, which are the most healthful? Here is what we know right now, about the actual health benefits of tea, and some details that might help maximize its benefits.

An infusion of the *Camelia sinensis*, or “tea” plant, has been enjoyed over much of the planet, for millennia. From its Asian origins, it quickly spread with international trade to Europe and then the colonies, eventually enjoying nearly universal popularity. Today, it remains a staple beverage the world over, enjoyed by over a billion people on a daily basis.

People drink it because it tastes good, and lifts the spirits, but over the past 20 years, a great deal of research has gone into answering the question, “is it good for us.” The answer is a resounding “yes,” as anyone who keeps up with the popular press knows.

More than any other beverage, tea has been given the “green light” by health researchers as the “beverage of choice” for those who choose to drink something other than water. What accounts for these benefits, and can they be maximized by choosing tea varieties and preparation methods carefully? Does it even matter what kind of tea we drink?

We now know that most of the health benefits of tea are due to “catechins,” a type of natural anti-oxidant molecule that is well absorbed in the digestive tract and able to positively affect most body tissues, including the ability to cross the blood-brain barrier, benefitting the brain. Not all anti-oxidants possess this capability.

This may account for the discovery in 2006, that those who drink more than two glasses of green tea per day are 50% less likely to suffer from dementia or cognitive decline than those who do not. A more recent study confirmed this effect, showing very significant protection against cognitive decline (brain impairment) among frequent tea drinkers (1-4 times per week).

I believe results such as these ought to be paid attention to. If this effect is due to the anti-oxidant properties of tea, then many other positive effects are likely to be occurring as well. Researchers have been avidly looking for evidence of anti-cancer

effects due to these anti-oxidant qualities, but the jury remains out on this question. Some research has shown such effects, but other studies have failed to confirm it. The FDA has not yet allowed this “health claim” for tea.

Even without proof of anticancer benefits, there are still plenty of other compelling health benefits associated with tea, including:

- Improved T-Cell (immune system) functioning
- Anti-viral effects
- Increased metabolic rate, helping to control weight and improve fat metabolism (fat burning effects)
- Improved arterial elasticity
- Can improve halitosis (bad breath)
- Reduced GI tract inflammation in patients with Inflammatory Bowel Disease
- Reduction in the “stress hormone” cortisol
- Reduced incidence of stroke among tea drinkers
- Tea catechins are capable of “chelating” or binding toxic heavy metals, removing them from the body and even the brain
- LDL cholesterol reduction

We often hear that green tea is more healthful than black tea. What is the truth? As antioxidants, they are actually nearly equivalent, with black tea possessing about 95% of the antioxidant effects of green tea. However, there are other factors at work. Black tea is processed in a natural way that “oxidizes” the tea leaves, inevitably causing some changes to beneficial molecules. I believe this accounts for the generally more positive effects seen with green tea in virtually every study.

Furthermore, green tea seems to contain more L-theanine, a remarkable amino acid that may account for many of the impressive effects of tea on the brain. This substance is actually capable of inducing a state of mind called the “alpha brain

wave state,” in which one is fully alert, but very relaxed and capable of high-level creativity. Many call this state of mind, “The Zone.” Green tea, with its higher L-theanine content, can actually help us get there and stay there.

Even though the evidence comes down pretty clearly in favor of green tea, high-quality, fresh black tea is likely to be a very healthful beverage. In fact, I prefer black tea, myself. I generally have one cup to start the day. Studies still give it high marks for disease prevention, as well as metabolism boosting effects.

An alternative to green and black tea that may offer the “best of both worlds” is Oolong tea. Oolong is lightly oxidized, creating more complex flavors, and eliminating much of the “grassy” and sharp flavors that many find unpleasant about green tea, but it retains much more of its inherent health benefits than does black tea.

One thing is certain, all tea is not created equal. Beyond the simple question of green vs black, oolong and white tea, there is a huge variation in quality between growing regions and growers. The best teas in terms of freshness and quality are only available in loose leaf form, and only from high-quality tea vendors. Fortunately, great tea need not be expensive, if you know where to buy it.

Once one becomes accustomed to drinking high quality, loose tea, it is nearly impossible to go back to tea bags. There is simply no comparison. Bag tea simply tastes bland and stale, by comparison. The taste difference is directly a function of freshness, and the type of handling the tea receives.

Putting tea into little bags is the perfect way to destroy its healthful qualities, by maximizing exposure to oxygen, and thus oxidation. Loose tea, on the other hand, kept in a proper, airtight container, can retain its flavor, and health benefits for many months.

Concern over tea quality has more implications than just taste and anti-oxidant potential. Tea that is grown in regions with high levels of industrial pollution has been found to be very high in fluoride and aluminum. So high in fact, that negative health effects are known to occur in people who drink low quality, “commodity tea,” underscoring the need to buy your tea from a high-quality vendor, who can assure that the tea comes only from organic, non-polluted sources.

The ritual of preparing loose tea, using a tea infuser, “tea ball” or best of all in an

authentic tea pot, is a delight, and contributes to tea's health benefits in my opinion, by adding the elements of ritual to the equation. By adding a relaxing, "tea ritual" to your day, you can short circuit stress and gain a little bit of serenity, even in the midst of deadlines and workplace chaos.

Some folks worry that tea will cause them to become dehydrated, due to "diuretic effects." This fear appears to be completely unfounded, as one must consume 5-6 cups of tea to ingest enough caffeine to produce such an effect. Moderate tea consumption, such as 1-3 cups a day, should cause no net body water loss at all. High quality tea is like drinking "water plus," in my opinion.

To save money, while maximizing the benefits of green or black tea, I recommend buying it in bulk, as loose tea, from an online store such as [Arbor Teas](http://ArborTeas.com) ([ArborTeas.com](http://ArborTeas.com)), with over 100 varieties of USDA Certified Organic tea. Buy at least 8 ounces at a time. I like to buy by the pound, once I am familiar with a tea and know that I really like it.

Buying in bulk brings the cost down to a price very competitive with cheap, commodity tea bags. But instead of a questionable product, you can be sure you are buying tea you will not only savor, but which will really deliver the superfood potential of this venerable beverage.

Here are some more tips to maximize the health benefits of tea:

- Adding any kind of sugar is a "no no," as it will sharply detract from tea's benefits in many ways! That said, a teaspoon full of honey, added on occasion, is probably not too bad
- Adding milk has been shown to reverse some of the cardiovascular benefits of tea, by preventing absorption of EGCG, the substance responsible for helping blood vessels relax
- Adding a bit of citrus - a squeeze of lemon or lime - is good; it enhances absorption of tea's active constituents

Here's to your enjoyment of the many health benefits of tea!



## Coffee: It's Not Just a Cup-a-Joe

Unlike tea, coffee took a bit longer to receive an affirmative nod from health researchers, but considerable research now supports the health benefits of moderate consumption. What are the facts, and how can these benefits be maximized? We will take a look at the latest findings to make certain that drinkers of that “other beverage” don't feel left out.

For quite awhile, it seemed that research into tea found benefit after benefit, while coffee was accused of all sorts of adverse health effects. Recently, the tide has turned for coffee, mostly because of several recent studies that show coffee clearly reduces the risk of dementia (memory loss and cognitive decline). This was welcome news, especially for avid coffee drinkers like me.

I used to joke that Medical School was the “worlds longest Maxwell House Moment.” In fact, on my lab bench, I kept a coffee maker right next to my microscope. Over the years since, I have moderated things quite a bit. Today, I start most days with a cup of loose leaf organic tea, but I continue to enjoy coffee, on a regular basis, as well.

The recent flurry of positive studies regarding coffee's potential benefits is encouraging to me, as I know that most of my patients, and more than a billion other folks, enjoy coffee on a daily basis. We'd surely be in trouble if the evidence were pointing the other way! That said, from an anti-aging perspective, it is key that we know about the risks and potential benefits of anything we do or consume on a regular basis.

Fortunately, the positive news about coffee does not seem to be a fluke; instead, we are beginning to identify a number of new benefits, and understanding the basic chemical constituents in coffee that are producing them. Among these are recent confirmation that coffee (regular, not decaf), can lower risk of gallstones.

Another study underscores the protective effective of coffee against Parkinson's Disease, but only among heavy coffee drinkers (3-5 cups per day). Still, this is an exciting finding, pointing the way for further research, and suggesting to me that coffee is likely to have anti-aging effects on the brain.

In fact, the oldest people have been found to have the biggest improvements in memory function with coffee consumption - especially short term memory (where

did I put those keys?) - if they drink at least 2-3 cups of coffee per day. This should be quite encouraging, as next to cancer, cognitive decline is probably the biggest concern of folks over 70.

In addition to these exciting findings related to the brain, other research has shown that coffee can help prevent liver cirrhosis, a common, chronic change in liver tissue that can cause severe health consequences. Another study showed that coffee can help prevent hepatocellular carcinoma, a common form of liver cancer.

But what about the heart? Doesn't caffeine cause elevated blood pressure, and an increased release of the "fight or flight" neurotransmitters that cause stress on the heart? At least two, large studies say, "no." Moderate coffee drinking actually lowers the risk of dying from heart disease. These studies are big enough to have considerable predictive power, so I tend to believe these results.

Exciting new data links coffee drinking to a lowered risk of Type II diabetes. A large Australian study showed as much as a 7% reduction in risk of developing Type II diabetes, per cup, per day! That's a pretty impressive protection. No one is sure just yet why this is so, but the data is solid.

There are some unknowns and perplexing findings though. One of these is the finding that coffee brewed without the use of a filter paper (such as in a "French Press" or an espresso machine), contains significantly more of a naturally occurring chemical, called "cafestol," which can elevate LDL cholesterol, especially in women. Brewing with a paper filter obviates this concern completely.

Another study showed "proinflammatory effects" - increased inflammation - from coffee consumption, but the effects only appeared to be significant in those who consumed more than 4 cups per day. This matches up with much of the positive data on coffee and the heart, which shows heart benefits maxing out at around 4 cups per day. More than this may reverse the benefits, by increasing inflammation, which can be very detrimental to the circulatory system, in general.

For my part, I have decided to restrict consumption to no more than two cups per day, on most days. In addition, as with tea, I try to drink only high quality, organic coffee. Since I buy in bulk, I can drink the best possible coffee for a reasonable price.

I also try to purchase coffee that is very recently roasted, since many of the anti-

oxidant benefits of coffee are now known to be due to a substance produced in the roasting process itself, called trigonelline. Trigonelline is an alkaloid, and is likely to be lost to oxidation or volatilization if coffee sits on the shelf too long. As in the case with tea, freshness counts, not just in terms of flavor, but health benefits as well.

In addition, if you choose to drink decaf, be aware that some decaffeinating processes can leave residual volatile compounds in the coffee, which may be harmful and negate the benefits. I recommend coffee decaffeinated using the Swiss Water Process, or carbon dioxide extraction, neither of which should leave any harmful residues.

What about adding creamer? Non-dairy creamers, in general, are high carbohydrate, chemical-laden junk; I recommend avoiding them. I am also not a fan of most dairy products for regular consumption. That said, a couple of teaspoons of organic milk, half-and-half or cream added to a cup of good coffee are unlikely to pose a health risk, or to nullify the health benefits of coffee.

## Curry: It's the New Black

One cannot bring up the topic of superfoods without talking about Turmeric. Most of us know it as the spice that gives curry powder its color and much of its flavor, but there is so much more to this plant.

Turmeric, the basis of curry powder, is made from a plant which grows wild in the forests of Asia called *Curcuma longa*. Long used as a spice, it also has a venerable history as a healing herb, in ayurvedic as well as other traditional healing systems. It is not surprising that turmeric had such a wealth of uses in these healing systems; it contains some of the most powerful healing constituents ever discovered.

Curcumin is featured prominently in an earlier chapter dealing with the Inflammatory Process of Aging. The spice it is derived from deserves mention on its own, as it has beneficial compounds that extend beyond curcumin.

The hoopla over turmeric (curry) is no mere hyperbole. Recall the title of the paper we mentioned in Key #8 called: Curcumin and Cancer Cells: How Many Ways Can Curry Kill Tumor Cells Selectively? Must be written by an overly excited blogger, right? No, this paper is from MD Anderson Cancer Center in Houston, one of the most respected cancer research institutions in the world. This high-level review paper underscores 32 - count 'em - ways that curry inhibits or destroys cancer cells!

The upshot is, this is pretty powerful stuff. What is key is that, unlike toxic chemotherapeutic drugs, curcumin is very polite to normal cells. It's like the ultimate super-cop, it can wipe out an army of bad guys, but leave all the innocent bystanders unharmed. This ability is attracting more and more interest, as many cancers are virtually untouchable, even by the most toxic forms of chemotherapy. Curcumin packs a wallop.

The same abilities that make curcumin tough on cancer seem to make a top-notch cancer preventive. In fact, the review paper we just referred to from MD Anderson, was inspired precisely because the authors had noticed the large differential in cancer rates between world regions where curcumin (as curry), is consumed daily by nearly everyone (Asia), and those where it is only eaten on occasion (like the U.S.). Food for thought?

In addition to cancer preventing and fighting capabilities, curcumin is in the

research spotlight for another, key reason; it is an incredibly powerful, natural, “pluripotent” inhibitor of inflammation. What does pluripotent mean? It means that unlike the popular, side effect prone prescription drugs we call “anti-inflammatory” medications, curcumin controls inflammation by multiple mechanisms. This is no “one trick pony.”

In addition, curcumin has now been known to do three favorable things for cholesterol metabolism; namely, it elevates the “good cholesterol,” HDL, while lowering the undesirable LDL cholesterol, preventing LDL from becoming oxidized. This solid combination of cardioprotective effects add to an already long list of benefits.

But in my opinion, one of the most fascinating findings about curcumin is its ability to stimulate the formation of new neurons in a key area of the brain! But wait, we don’t make new neurons, right? Wrong. New neurons can form, protecting critically important brain centers from decline as we age, and curcumin has shown a powerful ability to help this process along, especially in the hippocampus, the brain region so important for memory function.

There are now well over 1000 research papers published on the subject of this super-spice, and its beneficial effects in a multitude of serious diseases. Some of the most recent research focuses on its potential to prevent Alzheimer’s Disease. The bottom line is this is not the latest hyped supplement; the many benefits of this plant and the seasoning (curry) made from it are too well proven and too powerful for that to happen.

Why aren’t we hearing more about it? Simply because the race is on to develop “analog” drugs that copy the effects of various compounds found in curcumin, since “curry” can’t be patented. Most of these “me too” drugs will probably be inferior to the real thing, and will take years to be approved. Why wait, when you can have all the benefits of this superfood, today?

One thing is certain, the spice - curry - is a lot cheaper than the drugs that will be patterned after it. How much is needed to see benefits? How can it be incorporated into a western diet? How often do we need to take it? Professor Murali Doraiswamy, of Duke University in North Carolina, believes that eating curry once or twice a week may be all that is needed to see some key benefits, such as Alzheimer’s Disease prevention.

How can curry be incorporated into a “Western” diet? More easily than you might think. Here is a great [collection of curry recipes from The Food Network](http://www.foodnetwork.com/topics/curry/index.html?No=0) (<http://www.foodnetwork.com/topics/curry/index.html?No=0>) that underscores the versatility of this super-spice. While not all of these recipes pass the low-carb test, many certainly do. I recommend that you add a few of them to your regular repertoire of staple dishes.

One key fact bears mentioning: you can’t overdo this spice. Studies show benefits don’t taper off with increasing intake. It is safe, and daily use is quite beneficial. If you are already taking a curcumin supplement, however, eating it once or twice a week should provide a reasonable intake of the other constituents.

Another key fact worth considering is the benefit of combining curry with black pepper. Studies of the anti-cancer effects of curry show that the effect is magnified by combining it with black pepper (*Piper longum*). It doesn’t take a lot of pepper to provide synergy. Simply add pepper to taste, and enjoy even greater health benefits from your curry!

The key to getting the full benefit of superfoods is to learn to make them a staple in your household. Take the time to learn several recipes and methods of preparation to make using these foods second nature. Much as with an exercise regimen, or any healthy practice, one has to push through some inertia to make it part of your routine.

Even if you take a curcumin supplement, such as the one recommended in Key #8 for inflammation, adding turmeric to your diet on a regular basis will very likely add disease-free years to your life, along with the benefit of adding a very versatile and delicious “spice” to your diet.

---

<sup>1</sup> Pharmacogenomics. 2006 Jul;7(5):663-72.

<sup>2</sup> Age (Dordr). 2008 December; 30(4): 263–272

<sup>3</sup> J Nutr. 2010 Oct;140(10):1764-8

<sup>4</sup> Murphy-Walsh et al, FASEB J. April 2009 23 (Meeting Abstract Supplement) 563.9

<sup>5</sup> [J Agric Food Chem. 2010 April 14; 58\(7\): 3996–4000.](#)

<sup>6</sup> Biochemical and Biophysical Research Communications, Volume 382, Issue 1, 24 April 2009, Pages 134-139

<sup>7</sup> Carcinogenesis. 2007 Jun;28(6):1188-96. Epub 2006 Dec 6. PMID: 17151092

<sup>8</sup> <http://migraines-headaches.org/ginger-a-possible-migraine-remedy/>