The Spice that Helps Prevent Cancer - Now Being Used to Repair Stroke Damage

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Scientists have created a new molecule from curcumin, the key chemical component of the spice turmeric. In laboratory experiments, the molecule was shown to affect the mechanisms that protect and regenerate brain cells after a stroke.

The new curcumin compound, called CNB-001, actually repairs stroke damage at the molecular level.

Physorg reports:

"Those who cook Indian, Thai, Malay and Persian dishes know turmeric well for its zesty flavor, use in curries and for the rich color it imparts to food. Turmeric also has a long history of use in Ayurvedic and Chinese traditional medicine."

Sources:
» Physorg February 10, 2011

Dr. Mercola’s Comments:

Curcumin -- the pigment that gives the curry spice turmeric its yellow-orange color -- is a natural compound that should be on your health radar for a number of reasons. Both the ancient Chinese and Indian systems of medicine have recognized curcumin's beneficial properties for thousands of years, and modern research suggests it may be one of nature's most powerful potential healers.

As you'll see, its health benefits are far-reaching and are now entering the arena of emergency medicine.
In this article I will also review several natural strategies for preventing stroke, as there are other lifestyle and dietary factors that play a massive role. You really don't want to wait until a stroke happens, regardless of how effectively drugs might help to keep you alive.

**So What is a Stroke?**

Strokes are sometimes referred to as "brain attacks" (instead of "heart attacks") because they occur when a blood clot blocks an artery or blood vessel, cutting off blood flow to your brain. As a result, brain cells die and brain damage can occur.

Strokes can be particularly devastating because they often occur without warning, and the longer your brain goes without oxygen, the greater your risk of lasting damage. This is one area where emergency medicine excels, as emergency medications can dissolve the clot that is blocking blood flow to your brain. In order to be effective, however, you typically need to get help within one hour.

So if you notice any of these signs of stroke, you should get help right away:

- Sudden trouble walking (dizziness, loss of balance, etc.)
- Sudden confusion
- Sudden numbness or weakness (especially on one side of your body only)
- Sudden trouble seeing
- Sudden severe headache

**Curcumin Drug May Help Regenerate Brain Cells after Stroke**

Contrary to the clot-busting drug currently used on stroke victims, the curcumin-hybrid compound, called CNB-001, does not actually dissolve the blood clot. Rather it repairs the damage incurred by the lack of oxygen, at the molecular level, by influencing the mechanism responsible for regeneration of neurons (brain cells).

This offers future stroke victims new hope for greater recovery, as it may reduce lasting damage. The research was presented at the American Heart Association International Stroke Conference in Los Angeles on February 9.

Now, although curcumin itself has been found to have great healing potential, including in the treatment of brain injury, it has drawbacks that makes it unsuitable for emergency treatment of stroke.

Physorg reports:
"[Curcumin] is not well absorbed in the body, fails to reach its target in high concentrations, becomes depleted quickly, and is blocked from entering the brain by a natural protective mechanism called the blood-brain barrier."

The curcumin-derived compound CNB-001, however, *does* cross the blood brain barrier and "moderates several critical mechanisms involved in neuronal survival," according to lead researcher Dr. Lapchak, PhD.

What this means is that if you're having signs of stroke, do not reach for the spice jar or a turmeric supplement. Seek immediate emergency medical attention! Turmeric *cannot* be used as a make-shift home-remedy for a stroke. I just want to make that perfectly clear.

The hybrid spice-drug compound may however help save lives in an emergency setting later on. According to Physorg's report:

"The drug reduced stroke-caused "motor deficits"—problems of muscle and movement control—in this laboratory study. It was effective when administered up to an hour after stroke, which correlates with about three hours in humans, the same time frame for which tPA is currently approved."

There's a time and place for conventional medicine, and stroke is one of those times when a drug can save your life. That said, considering how devastating (not to mention life threatening) a stroke can be, it would be in your best interest to adjust your lifestyle to prevent it from ever happening in the first place.

**This Common Vitamin Deficiency DOUBLES Your Risk of Stroke!**

What vitamin could this possibly be?

If you guessed vitamin D, you're absolutely correct. This was the impressive finding of a study presented on November 15 last year at the American Heart Association's (AHA) annual Scientific Sessions in Chicago.

It adds weight to research released earlier last year, which found that vitamin D deficiency is associated with arterial stiffness; a risk factor for heart disease and stroke. A separate study from Finland also found that those with the lowest vitamin D levels had a 25 percent higher risk of dying from heart disease or stroke, and when only stroke was evaluated, those with the lowest levels had twice the risk as those with the highest vitamin D levels.

In the past couple of years, research into the health benefits of vitamin D and the serious ramifications of deficiency has exploded. The evidence that vitamin D is a key player in your health is just overwhelming.

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For example, optimizing your vitamin D levels can also slash your risk of diabetes and cancer in half! And that's still just the tip of the iceberg.

What other drug or nutrient do you know of that can cut your risk of three of the most dangerous chronic diseases by 50 percent?!

It's abundantly clear that if you want optimal health, you need to pay attention to your vitamin D levels. Ideally, you'll want to increase your levels through safe sunshine exposure year-round. Not only is this the way you were designed to produce vitamin D naturally, but it also eliminates the risk of overdosing. You can also use a safe tanning bed if you can't get sufficient amounts of sun exposure outdoors.

If neither of those options are available to you, consider taking a vitamin D3 supplement, but be sure to get your vitamin D levels tested regularly to make sure you're staying within therapeutic limits, as you're circumventing your body's built-in regulatory mechanism.

For more information about safe sun exposure, testing, and dosages, please see my vitamin D page. I also recommend viewing my one-hour video lecture on vitamin D to get a deeper understanding of its vital importance to your health.

**Other Stroke Prevention Strategies**

Up to 80 percent of strokes are preventable, according to the National Stroke Association, so I strongly encourage you to take control of your health to reduce your risk. Conventionally speaking, many of the same risk factors that increase your risk of heart disease also increase your risk of stroke, such as:

- High blood pressure
- Obesity
- High triglycerides and elevated homocysteine levels
- Low levels of HDL (good) cholesterol and high levels of LDL (bad) cholesterol
- Smoking

So, as with your heart, eating unprocessed, natural foods, exercising, getting regular sun exposure, and maintaining a healthy weight will help to reduce your risk of stroke.

Also high up on the list of keys to preventing a stroke is to get a handle on your stress levels as the more stressed you are, the greater your risk. As an example, a study published in the journal Neurology found that psychological distress will greatly increase your risk of suffering
a stroke. The researchers actually found that for every notch lower a person scored on their well-being scale, their risk of stroke increased by 11 percent.

Not surprisingly, the relationship between psychological distress and stroke was most pronounced when the stroke was fatal.

So while optimizing your vitamin D levels and leading a healthy lifestyle with nutritious food and regular exercise are important, you'll want to be sure you tend to your emotional health as well.

**More Health Benefits of Curcumin**

Now that we've reviewed the strategies that can help prevent you from becoming another stroke statistic, let's get back to curcumin, because this spice compound—which is also available in supplement form—has many other potent health benefits.

Most notably, curcumin is known for its potent anti-inflammatory properties, and chronic inflammation is the hallmark of most chronic disease, including diabetes, arthritis, and heart disease, just to name a few. The compound has been shown to influence more than 700 genes, and it can inhibit both the activity and the synthesis of cyclooxygenase-2 (COX2) and 5-lipoxygenase (5-LOX), as well as other enzymes that have been implicated in inflammation.

But that's not all. Other health benefits include:

- Strengthening and improving your digestion
- Supporting healthy liver function and detoxification
- Purifying your blood

Further, evidence suggests turmeric may play a beneficial role in the following diseases:

- **Cystic fibrosis**
- Type 2 diabetes
- Inflammatory bowel disease, Crohn's disease
- Psoriasis
- Rheumatoid arthritis
- Cataracts
Curcumin—one of the BEST Supplements for Many Cancers Too!

If you want to use curcumin to prevent stroke I believe your best strategy is to use it as a food in the form of turmeric. However if you have a severe illness, like cancer, then it is best to use it as a drug at a much higher dose as described below.

Dr. William LaValley from Austin Texas is one of the top natural medicine cancer physicians I know and he recently shared this important information on curcumin, which has the most evidence based literature for use as a cancer support than any other nutrient.

Curcumin affects more than 100 different pathways once it gets into the cell. Interestingly this also includes the metabolite of curcumin and its derivatives, which are also anti-cancer. Best of all, curcumin appears to be safe in the treatment of all cancers.

In India where turmeric is widely used, the prevalence of four common U.S. cancers -- colon, breast, prostate and lung -- is 10 times lower. In fact, prostate cancer, which is the most frequently diagnosed cancer in U.S. men, is rare in India and this is attributed, in part, to the curcumin in turmeric.

Numerous studies have looked into this potential cancer-fighting link, with promising results. For instance, curcumin has been found to:

- Inhibit the proliferation of tumor cells
- Inhibit the transformation of cells from normal to tumor
- Help your body destroy mutated cancer cells so they cannot spread throughout your body
- Decrease inflammation
- Enhance liver function
- Inhibit the synthesis of a protein thought to be instrumental in tumor formation
- Prevent the development of additional blood supply necessary for cancer cell growth
And, according to researchers from the University of Texas M.D. Anderson Cancer Center, curcumin blocks a key biological pathway needed for development of melanoma and other cancers.

The spice actually stops laboratory strains of melanoma from proliferating and pushes the cancer cells to die by shutting down nuclear factor-kappa B (NF-κB), a powerful protein known to induce abnormal inflammatory response that leads to an assortment of disorders such as arthritis and cancer.

To get the full benefits that curcumin has to offer, you will want to look for a turmeric extract with at least 95 percent curcuminoids that contains only 100 percent certified organic ingredients.

The formula should be free of fillers, additives and excipients (a substance added to the supplement as a processing or stability aid), and the manufacturer should use safe production practices at all stages: planting, cultivation, selective harvesting, and then producing and packaging the final product.

**Details on How to Use Curcumin**

The unfortunate challenge at this time is that good formulations of curcumin to use in cancer still aren't available. This is because relatively high doses are required and curcumin is not absorbed that well. Typical anticancer doses are up to three grams of good bioavailable curcumin extract, three to four times a day.

One work-around for this is to use curcumin powder and make a microemulsion of it by combining a tablespoon of the powder and mixing it into 1-2 egg yolks, and a teaspoon or two of melted coconut oil. Then use a high-speed hand blender to emulsify the powder.

Another strategy to increase absorption is to put one tablespoon of the curcumin powder into a quart of boiling water. It must be boiling when you add the powder as it will not work as well if you put it in room temperature water and then heat the water with the curcumin already in it. After boiling it for 10 minutes, you will have created a 12 percent solution, which you can drink once it has cooled down. The curcumin will gradually fall out of solution over time and in about six hours it will be a 6 percent solution, so it is best to drink the water within four hours. It does have a woody taste.

One caution to know is that you want to avoid the "yellow kitchen" syndrome. Curcumin is a very potent yellow pigment and can permanently discolor surfaces if you aren't careful.