This Spice Slashed Prostate Cancer Growth in Mice by 56%

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By Dr. Mercola

Ginger has a long history of medicinal use, primarily for soothing nausea and easing stomach upset and dizziness. But it's also a natural immune system booster with anti-inflammatory and pain-relieving properties, courtesy of several bioactive phenolics, including:

- Gingerols
- Paradols
- Shogaols
- Gingerones
- Zingerones

Phenolic antioxidants, which are plant metabolites found throughout the plant kingdom, have been found to play important protective roles against diseases caused by oxidative damage, such as coronary heart disease, stroke, and cancers. (This is in part why regular consumption of vegetables is believed to be so important for heart disease and cancer prevention in particular.)

Previous research has also established that ginger exhibits antiproliferative powers, indicating it may be useful as a chemopreventive agent. Now, a study published in the British Journal of Nutrition has demonstrated, allegedly for the first time, the in vitro and in vivo anticancer activity of ginger, suggesting it may indeed be effective in the management of prostate cancer.

How Whole Ginger Extract Helps Combat Prostate Cancer

The study showed that whole ginger extract exerts significant growth-inhibitory and death-inductory effects in a spectrum of human prostate cancer cells. The extract:
• Impaired cell-cycle progression
• Impaired cellular reproductive capacity
• Modulated the cell-cycle
• Modulated molecules that regulate apoptosis (cell death)
• Induced caspase-driven, mitochondrially mediated cell death in human prostate cancer cells

The authors write:

"Remarkably, daily oral feeding of 100 mg/kg body weight of ginger extract inhibited growth and progression of PC-3 xenografts by approximately 56 percent in mice, as shown by measurements of tumor volume.

Tumor tissue from [ginger extract]-treated mice showed reduced proliferation index and widespread apoptosis [cell death] compared with controls, as determined by immunoblotting and immunohistochemical methods. Most importantly, [ginger extract] did not exert any detectable toxicity in normal, rapidly dividing tissues such as gut and bone marrow."

**Other Health Benefits of Ginger**

The phenolic antioxidants (listed at the beginning) are also believed to have particular anti-inflammatory and analgesic properties similar to nonsteroidal anti-inflammatory drugs (NSAIDs), and more recent research confirms this. In a 2010 study, ginger was found to be an effective pain reliever for exercise-induced pain. In this case, raw ginger was determined to be slightly more effective than a heat treated form, reducing pain by 25 percent within 24 hours. More importantly however, over the past decade, researchers have discovered that ginger may offer potent cardiovascular benefits by:

• Preventing atherosclerosis
• Lowering cholesterol levels
• Preventing oxidation of low density lipoprotein (LDL)

With cancer and heart disease topping the charts in terms of mortality, making sure to include potent disease fighting foods in your diet on a regular basis would be a no-brainer, and ginger certainly appears to be one such ingredient. In one animal study, mice who received 250 micrograms of ginger extract daily experienced the following beneficial effects over a 10-week period:
The Importance of Maintaining a Healthy Prostate

Prostate cancer is one of the most common cancers in American men, affecting about one in six men at some point in their life. It's also the second leading cause of cancer death in men. However, as dire as that sounds, the 5-year relative survival rate of all men with prostate cancer is, remarkably, 100 percent, and the relative survival rate at 10 years is 91 percent, according to the American Cancer Society. The term "relative survival rate" may warrant an explanation. As explained on Wikipedia:

"... 5-year relative survival rates describes the percentage of patients with a disease that are alive five years after their disease is diagnosed, divided by the percentage of the general population of corresponding sex and age that are alive after five years... In contrast to five-year absolute survival rates, five-year relative survival rates may also equal or even exceed 100% if cancer patients have the same or even higher survival rates than the general population. This pattern may occur if cancer patients can generally be cured..."

Still, since the prevalence of prostate cancer is so high, maintaining a healthy prostate is important for all men, including men who are under the age of 60. Because even though you may be able to reverse the damage, ideally you'll want to prevent these problems from occurring in the first place.

Men over 70 have a 50/50 chance of developing an enlarged prostate, known as benign prostate hyperplasia (BPH). This does not equal prostate cancer. However, you do need to address this issue, and unfortunately, the conventional route includes drugs. Some of these drugs can do far more harm than good, and certain ones actually carry a warning label that if you have benign prostate hyperplasia, the drug may increase your cancer risk, and/or may promote a much more aggressive form of cancer.

For more information about this, please review this previous article on prostate health, which includes an informative interview with Dr. Rudi Moerck.

How to Maintain Optimal Prostate Function and Help Prevent Prostate Cancer

Diet is a factor that can greatly impact your prostate health. You'll want to eat as much organic (preferably raw) food as possible, and liberally include fresh herbs and spices, such as ginger.
Make sure to limit carbohydrates like sugar/fructose and grains as much as possible to maintain optimal insulin levels, which will help reduce your cancer risk in general. Highly processed or charcoaled meats, pasteurized dairy products, and trans fats correlate with an increased risk for prostate cancer and should also be avoided.

There are also a number of more specific nutritional therapies that are particularly beneficial for avoiding and/or treating prostate cancer.

• **Include prostate-healthy foods in your daily diet:** Foods that support prostate health include vegetables and fruits rich in antioxidants, vitamins, carotenoids, and lycopene. One 2009 study identified tomatoes, cauliflower, broccoli and green tea as **being particularly beneficial against prostate cancer**

• **Try saw palmetto:** The medical literature contains about 100 clinical studies on saw palmetto for prostate health and reduced incidence of prostate cancer. Trying saw palmetto before you resort to a drug is well worth it, considering the stern warnings that accompany some of these drugs. **According to Dr. Moerck**, saw palmetto in combination with pumpkin seed or lycopene may be an even more potent combination.

Beware that quality is very important when selecting a saw palmetto supplement. Most brands on the market are ineffectual because they use the inactive form of the plant. The highest quality products are the **organic supercritical-extracted saw palmetto oils**, which are very dark green in color. Only one or two out of every 20 brands will be of this high quality. Dr. Moerck recommends a daily dose of 320 mg of saw palmetto oil (supercritical CO2 extract). Keep in mind that saw palmetto is a fat soluble supplement, so it will not absorb well unless you take it in conjunction with a little bit of fat. I recommend taking it with eggs, which contain phospholipids that enhance absorption of fat soluble nutrients.

• **Optimize your vitamin D levels**, ideally by exposing your bare skin to natural sun light on a regular basis. **(Your skin also synthesizes vitamin D sulfate**, which may account for many of vitamin D’s potent health benefits, so sun exposure is really the ideal way to optimize your levels and get the greatest overall health benefits.) Evidence suggests that vitamin D may be one of the most potent variables associated with a lower risk of prostate cancer.

There are well over **800 scientific studies confirming the link between vitamin D deficiency and multiple types of cancers**, including prostate cancer. For example, according to a 2005 study, men with higher levels of vitamin D in their blood were **half as likely to develop aggressive forms of prostate cancer** as those with lower amounts. Another study published two years ago found that men with higher levels of vitamin D in their blood were **seven times less likely to die from prostate cancer** than those with lower amounts.
Testing your vitamin D levels is done by a simple blood test. Anything below 20 ng/ml is considered a serious deficiency state, which will increase your risk of breast- and prostate cancers.

The optimal value that you're looking for is between 50-70 ng/ml. However, research has suggested that maintaining a slightly higher level of 70-100 ng/ml may be optimal for cancer prevention. If you can't get regular sun exposure, you may want to consider using a safe tanning bed (one that uses electronic rather than magnetic ballasts). As a last resort, you can opt for an oral vitamin D3 supplement. Keep in mind that when using a supplement, regular testing becomes even more important to make sure you're staying within therapeutic range.

• Consider a vitamin K2 supplement: Another nutrient that has been found to offer significant protection against prostate cancer is vitamin K2. Although I don't typically recommend taking a lot of supplements, vitamin K is one you may want to seriously consider because many people don't get nearly enough of it on a daily basis through the foods they eat.

• Exercise your body, and your prostate: Having a well-rounded exercise regimen is essential for overall health, and is now becoming more widely accepted as a critical piece of cancer prevention and treatment. Having sex on a regular basis, which exercises your prostate specifically, is also important.

• Check your testosterone levels: Contrary to popular belief, restoring testosterone levels in aging men does not appear to promote prostate cancer—on the contrary! According to meticulous research by Dr. Abraham Morgentaler, MD, author of Testosterone for Life, men with low testosterone are the ones at greater risk. For an interesting article that contains a lot more information about this, read Dr. Morgentaler's report Destroying the Myth About Testosterone Replacement and Prostate Cancer. It explains how unfortunate assumptions have led to a dogmatic belief that testosterone replacement increases your risk of prostate cancer—a belief that might now be preventing many men from being optimally healthy.

If you are low you can consider trans rectal DHEA cream. I personally use about 50 mg twice a day, and it has done wonders to optimize my testosterone levels as DHEA is converted to testosterone in your body.

So in closing, prostate cancer is a disease that can be managed … if you make the appropriate lifestyle modifications. Ideally, you'll want to pay close attention to your prostate health early on—avoid waiting until you're in your 60's. Incorporating the lifestyle recommendations discussed above can help you prevent prostate problems from developing in the first place.