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# CENTRAL PA HEALTH CARE QUALITY UNIT NEWSLETTER FOR HEALTHY OUTCOMES

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M.C. 24-12,100 North Academy Avenue, Danville, Pa. 17822 Phone: (570) 271-7240 Fax: (570) 271-7241

Website: <http://www.geisinger.org/bcqu>

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## GARLIC: Is it Good for Cholesterol?



*From CholesterolNetwork.com – Dr. Kang May 20, 2008*

As with any comprehensive treatment program to treat bad cholesterol, modifying what you eat remains one of the cornerstones. Several herbs have been thought to improve cholesterol levels, and more specifically, the makers of several herbal supplements have claimed benefit with their product. Garlic is one of the most commonly consumed herbal supplements. Among its many purported health benefits, which include lowering blood pressure, preventing blood clots, killing bacteria and fungus, and repelling both ticks and bloodsucking creatures of the night, garlic has long been thought to improve cholesterol.

Garlic (*Allium sativum*), otherwise known as the “stinking rose,” contains a chemical called alliin. When garlic is crushed, a chemical reaction occurs and alliin becomes allicin. Allicin has been well documented to inhibit the formation of cholesterol in several laboratory studies. Furthermore, over a hundred animal studies have been performed that showed a positive effect of allicin on cholesterol.

Unfortunately, the results seen in the laboratory and in animals have not been consistently seen in humans. Earlier studies shown mixed results and produced more criticism concerning study designs than answering the question concerning the benefits of garlic. Much criticism focused on the form of garlic (raw vs. supplemental form) and the dose given. Therefore, a well-designed and powerful study was performed by Stanford University last year to answer the garlic cholesterol connection.

In this study, almost 200 people with moderately elevated cholesterol were given 3 forms of garlic: raw garlic (blended and given in a sandwich as a condiment), Garlicin (powdered garlic supplement), and Kyolic-100 (aged powdered supplement). Each garlic product was eaten 6 days of the week for a total of 6 months. The amount of allicin and garlic in each product was fairly similar and the supplement doses were actually 2-3 times the manufacturer’s recommended dose.

Besides bad body and breath odor reported by over half of those eating the raw garlic, there was no significant improvement in cholesterol levels in any of the 3 treatment groups. No serious side effects were reported either. Does this lay the garlic-cholesterol connection to rest? Perhaps. Critics of this study point out that a lower dose of the Kyolic-100 supplement was used in this study as opposed to earlier positive studies. Furthermore, not all forms of garlic supplements (i.e. garlic oil) were investigated. Nevertheless, not even a hint of cholesterol benefit was seen over the 6 months, a pretty negative conclusion if you ask me.

Based on this information, Dr. Kang does not recommend that people start taking garlic as the sole therapy to treat high cholesterol. Eating a heart healthy diet, exercising, and taking prescribed medicines if indicated still remain the cornerstone of treatment. If a person still wants to take garlic for heart health that is fine. Just because there is not a proven garlic cholesterol connection does not necessarily mean that garlic may not have overall heart benefit. Garlic has several other favorable effects on the body that may reduce a risk of a heart attack independent of cholesterol. All the doctor asks is that you wait till after your appointment to eat your daily dose of garlic.

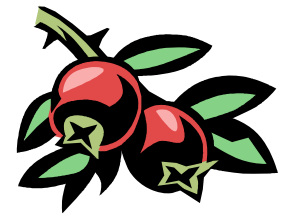
*The information offered in this newsletter is to increase your awareness of health related conditions and situations and not intended to be a substitute for professional medical advice.*

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# CRANBERRIES: Do they help prevent urinary tract infections in women?

From *Harvardhealth Newsletter - Harvard Women's Health Watch* Volume 15 – Number 8 – April 2008



In what may be the biggest boost for cranberries since Thanksgiving, researchers with the highly respected Cochrane Collaboration — experts who identify and evaluate studies of health care interventions — say that scientific evidence supports daily consumption of cranberry products to reduce the likelihood of urinary tract infections (UTIs). The preventive effect is strongest in women with a history of recurrent UTIs — that is, three or more a year. Results were published in the Jan. 23, 2008, issue of the *Cochrane Database of Systematic Reviews*.

Cranberry juice has been used for years to treat and prevent UTIs, which are roughly 50 times more common in women than in men, according to background material accompanying the Cochrane review. UTIs can affect any part of the urinary tract but occur most often in the bladder (cystitis), producing symptoms of frequent, urgent, or painful urination, and sometimes abdominal pain or blood in the urine. Most UTIs are caused by *Escherichia coli*, or *E. coli*, which can travel from the anus to the urethra during activities such as using the toilet or having sexual intercourse. Women are more vulnerable to UTIs than men are, because a woman's urethra is close to the vagina and anus and shorter than a man's, allowing bacteria easier access to the bladder. Antibiotics are very effective in preventing and treating these infections, but many women don't like to take them because they can cause diarrhea, nausea, and yeast infections of the vagina or mouth.

## The research

The Cochrane reviewers searched medical databases and clinical trial registries and consulted cranberry industry sources to find studies that lasted at least one month and compared cranberry juice, capsules, or tablets with a placebo or water for the prevention of UTIs in a variety of populations. They identified 10 studies — involving a total of 1,049 participants — that met their inclusion criteria.

Results showed that over a 12-month period, cranberry products reduced the overall incidence of UTIs by 35%. Within these results, cranberries appeared to be more effective at preventing UTIs in women with recurrent symptomatic infections than in elderly populations — and ineffective in people with bladder problems that involved catheterization. Among women with recurrent symptomatic UTIs, cranberries cut the annual rate of new infections by 39%.

One of the drawbacks of the studies being reviewed was their lack of consistency in dosing and in the concentration of cranberries. Also, the chemical composition of the cranberry products was not standardized, and the bioequivalence between the juice, capsules, or tablets was unknown. So it's hard to know exactly which and how much of the various cranberry components people were getting, or what level of intake was effective. (The traditional recommendation is a glass or two of 100% cranberry juice a day.) Also, the dropout rate was high in most of the studies; the reasons for this remain unclear, though in some studies, taste has been cited as a problem.

## How do cranberries help?

Cranberries contain several compounds that could confer health benefits, including salicylic acid (the active ingredient in aspirin) and plant chemicals called polyphenols, which have antioxidant properties. No exact mechanism of action has been established, but in laboratory tests, cranberry extracts have been shown to hamper the ability of *E. coli* to stick to the type of cells that line the urinary tract.

A possible limitation of cranberry therapy is that regular cranberry juice is fairly high in calories (130 to 140 calories per 8 ounces, about 50% more than orange juice and even colas). Also, the flavor may not be agreeable to some people, especially over the long term. Fortunately, there are many other things you can do to help stave off UTIs. Drink plenty of water, to help increase urine output. Don't resist the urge to urinate; go when you need to. Take showers instead of tub baths. Urinate before and after sexual intercourse. If you continue to have problems, talk to your clinician about prophylactic antibiotic therapy — that is, taking an antibiotic daily, or after intercourse, or for a few days at the first sign of symptoms.

# LYCOPENE: Will it reduce the risk for Cancer?

Sources: *Healthy Bites*, Vol. 5, 2004

Today, science has a better understanding of why fruits and vegetables should be part of a healthy diet. Fruits and vegetables provide vital nutrients including antioxidants such as vitamin C, vitamin E, beta-carotene and lycopene. Antioxidants work by neutralizing free radicals that are formed when body cells burn oxygen for energy. Antioxidants also may help keep the immune system healthy and reduce the risk for cancer and other diseases.

## What is lycopene?

Lycopene is a pigment that gives vegetable and fruits, such as tomatoes, pink grapefruit and watermelon, their red color. It also appears to have strong antioxidant capabilities. Several studies suggest consumption of foods rich in lycopene is associated with lower risk of prostate cancer and cardiovascular disease. In a 1995 Harvard University study conducted with 47,894 men, researchers found that eating 10 or more servings a week of tomato products was associated with as much as a 34% reduced risk of prostate cancer.

The protective effect of antioxidants on heart disease has been well documented. In a recently published study, men who had the highest amount of lycopene stored in their body fat were half as likely to suffer a heart attack as those with the least amount of lycopene in their body fat. Researchers have determined that the level of lycopene in body fat is an indicator of lycopene content in the diet.

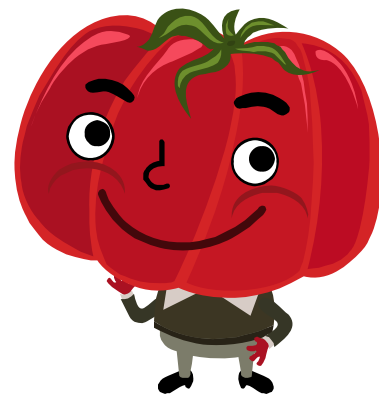
## Where can you find lycopene?

Lycopene is not produced in the body, so you can only obtain its benefits by eating foods rich in lycopene. Tomato products, such as spaghetti sauce, tomato juice, ketchup, salsa, and pizza sauce are, by far, the major sources of lycopene in the typical American diet. In fact, these foods provide over 80% of the lycopene consumed in the U.S. The body better absorbs Lycopene when it is consumed in processed tomato products, rather than fresh tomatoes. The reason for this remains unclear. In one study lycopene was absorbed 2.5 times better from tomato paste than from fresh tomatoes. Also, cooking fresh tomatoes with a little oil greatly increases its absorption.

### Food Sources of Lycopene

- Tomato or Spaghetti Sauce, ½ cup.....19.4mg
- Campbell’s Tomato Soup, 1 cup.....12.0mg
- Furmano’s Canned Tomatoes, ½ cup.....11.8mg
- Watermelon, 1 cup.....7.8mg
- Salsa, 1/8 cup.....7.0mg
- Hunt’ Ketchup.....5.1mg
- Fresh Tomato, 1 medium.....3.7mg
- Pink or Red Grapefruit, ½ cup.....1.8mg

Lycopene content was estimated based on the USDA/Ncc Carotenoid Database for U.S. Foods – 1998 & Tomato Research Council



# GREEN FOOD: Is it Valuable?

SOURCES: *Web MD Medical News*. SOURCES: *Melissa Diane Smith, nutritionist; and author, Going Against the Grain: How Reducing and Avoiding Grains Can Revitalize Your Health*. *Andrey T. Cross, PhD, nutritionist, Columbia University, New York City. Carol A. Miles, PhD, agricultural systems specialist, Washington State University Vancouver Research Station, Vancouver, Wash.*

Leafy green vegetables and fruits are loaded with antioxidants, minerals, folate, and flavonoids. These all work to prevent unstable molecules called free radicals from damaging cells. Unfortunately, eating vegetables is not an automatic choice for humans. Therefore, it's a challenge to present green foods in enough different ways to entice you to eat them. Some ideas:

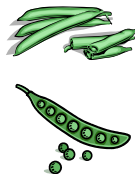
- Wrap small portions of cheese, meats, rice, or condiments in greens. Even restaurants are now offering "lettuce wraps." "Blanched cabbage (boiled a few minutes in water or tomato juice to soften it) is also a good wrap. Cabbage is rich in anticancer antioxidants and bioflavonoids.
- Dress up frozen pizza with frozen or fresh spinach or green pepper. When you order out, ask for double green pepper. Green pepper is packed with vitamin C. Spinach (and Swiss chard and kale) is especially good because it contains lutein, a complex substance that can help prevent the blinding eye disorder called macular degeneration. Lutein also lowers cholesterol.
- Steam veggies to keep them green. If you don't have a fancy steamer, a few minutes suspended in a colander over a pot of water works.
- For leafy greens, steaming can result in a gray mess. Acids in these greens destroy the chlorophyll, leaving an unappetizing wad. Instead, treat spicy greens like mustard greens or chard by precooking in 2 cups of water per pound for three to 10 minutes.
- Some greens are bitter -- try adding raisins.
- Sneak cut-up zucchini into meatloaf. The same goes for pasta sauce; load it up with greenery.
- If you make canned soup, toss in frozen peas or string beans. The FDA has declared that frozen is as nutritious as fresh. A box of veggies in macaroni and cheese is also delicious.
- At the salad bar, make a veggie sandwich. Add balsamic vinegar and munch away!
- Check out the prewashed department. In addition to prewashed lettuce, mesclun, field greens, and other variations (the darker the green, the better), grocery stores now carry prewashed broccoli florets and cut-up celery. Toss some ranch dressing in your lunch box, along with prewashed veggie chunks, and it's a perfect desk nibble!
- Don't forget the fresh herbs next door to the prewashed greens. Make pesto (mashed olive oil, garlic, and basil leaves) and spread on crusty bread and pop under the broiler.
- Or toss some fresh tarragon on asparagus, drizzle with extra virgin olive oil, and roast at 400 degrees for 15 minutes.
- When you finish eating, banish that garlic mouth by eating your parsley garnish.

## GREEN PEA AND GREEN BEAN SALAD

16 oz. can tiny green peas  
16 oz. can white shoepeg corn  
16 oz. can french cut green beans  
1 medium onion chopped  
3/4 cup finely chopped celery

### Dressing:

1/2 cup oil  
1/2 cup wine vinegar  
3/4 cup sugar



1 tsp salt  
1/2 tsp pepper

Make dressing by combining all ingredients and heat to boiling.  
While cooling, drain and combine the veggies.  
When dressing is cool, pour it over the veggies.  
Let it stand 24 hours if you can but it is pretty good after 4 to 6 hour