

Your physicians at SCCA consider you the most important member of your health-care team and as such we invite you to read this educational publication to learn more about cancer prevention research that's being done at our institution as well as other institutions across the country. SCCA's leading experts provide commentary about the studies we feature to help you understand the science.

Meet Our Staff

**Donna Manders—
Tobacco Cessation Specialist,
Clinic Coordinator for the
Lung Cancer Early Detection
and Prevention Clinic and
Smoke Free Life Program**



Donna Manders joined Seattle Cancer Care Alliance this fall to help support the lung cancer prevention efforts now under way. She is the clinic coordinator for the Lung Cancer Early Detection and Prevention Clinic as well as the Tobacco Cessation Specialist with the Smoke Free Life Program.

"Quitting smoking will change a person's life forever for the better," Manders says. "It is the single most important thing you can do for your health."

Manders holds a Masters of Public Health degree from the University of Washington and comes from the world's largest provider of telephone quit line services, called Free & Clear, Inc. based in Seattle.

"Nine out of 10 cases of lung cancer, which is the number one cancer killer of men and women, are directly caused by smoking," she says. "That's 90 percent and all are preventable! Every year smoking is directly responsible for thirty percent of all cancer deaths in the United States.

Although never a smoker herself, Manders says she has had to make behavior changes in her life that has required her to make a plan and stick with it, which is what the Smoke Free Life Program advocates.

A typical patient visit with Manders begins with a discussion that helps the patient identify why they want to quit, and then she helps them develop a strategy to help them meet their goals.

She can talk about quit smoking aids and medications, and how they work, which doubles or triples your chances of succeeding.

"Setting a quit date gets the ball rolling in the right direction," Manders says.

"It is a privilege to do what I do," she says. "It's not easy to quit and I have the privilege of being with a lot of courageous people."

Cancer Prevention Tip

Eat Your Veggies

Mothers and dietitians have been right all along: vegetables are good for you—especially crunchy vegetables like cabbage, cauliflower, collard greens and, best of all—broccoli—to keep cancer away.

Sulforaphane glucosinolate, the special anti-cancer compound found in these veggies, was discovered by a scientist in 1992 to work strongly against breast cancer cells. Other scientists have shown this to be true since then as well. Sulforaphane helps the body keep cancer cells from forming and tumors from developing. It is especially potent in young broccoli plants (up to 50 times more than mature plants).

Other cancer fighters are foods with omega-3 fatty acids (alpha-linolenic acid or ALA) and colorful fruits. Walnuts wallop breast cancer cells because of the type of omega-3 fatty acid they contain. Canola oil and flaxseed have ALA. And while strawberries and pomegranates are pretty to look at and delicious to eat, they are breast cancer busters, too.

Eat up!

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RESEARCH YOU CAN USE TODAY Fruits, vegetables, and cancer-risk study

The Japan Public Health Center conducted a study that was published in the *American Journal of Epidemiology* in January 2008, entitled "Fruit and vegetable intake and risk of total cancer and cardiovascular disease: Japan Public Health Center-Based Prospective Study." These researchers decided to look at fruit and vegetable consumption and how it affects one's risk for cancer and heart disease.

Between 1995 and 1998, nearly 78,000 men and women between the ages of 45 and 74 were given a "validated

food frequency questionnaire"

and were followed until the end of 2002. They found that

people who ate more fruit were significantly less likely to have

heart disease, but the same

did not hold true for eating

vegetables. And, strangely

enough, the study found that

eating fruits and vegetables did

not lower your risk for cancer in general, either.

The authors of the study concluded that this "prospective cohort study"—

which means the people in the study shared common characteristics—

demonstrated that, in the Japanese population, consumption of fruit is

associated with lower risk of cardiovascular disease, but fruit and vegetables

may not be associated with lower risk of total cancer. *(Continue inside)*



What is your Risk for Breast Cancer?

The Breast Cancer Risk Assessment Tool is an interactive tool to estimate a woman's risk of developing invasive breast cancer. For more information, visit www.seattlecca.org/breast-cancer-risk-assessment.cfm

NEW Mammogram Reminder Service

If you've had a mammogram in the past year (or just scheduled one), let us help you to remember to schedule your next one.

Go to www.seattlecca.org/mammogram-reminders.cfm and fill out the information and we'll send you a reminder when it's time to schedule your annual appointment.

More Cancer Risk Assessment Tools coming soon!

(Continue from cover)

But wait, another study shows dietary patterns do affect cancer risk.

Many studies have considered diets in terms of food and nutrients and their association to breast and ovarian cancers, but rarely in terms of dietary patterns.

In the “Nutrient dietary patterns and the risk of breast and ovarian cancers” study, published by the *International Journal of Cancer* in February 2008, researchers investigated dietary habits using a validated food-frequency questionnaire. They identified dietary patterns on a selected set of nutrients and learned that the starch-rich pattern may lead to a higher risk of both breast and ovarian cancers, but that that the animal products, and the vitamins and fiber patterns appear to reduce the risk of these cancers.

What about green tea?

In a study called “Green tea consumption and the risk of pancreatic cancer in Japanese adults,” published in the July 2008 medical trade magazine, *Pancreas*, study investigators looked at the chemical ingredients (polyphenols) in green tea that had been shown in the past to inhibit tumor growth in animals and in vitro studies.

In a large Japanese cohort study, between 1988 and 1990, participants reported how often and how much green tea they drank during the year and were followed-up for mortality from pancreatic cancer until December 31, 2003. After an average follow-up of 13 years, the investigators observed 292 pancreatic cancer deaths.

The investigators didn’t see any significant risk reduction for pancreatic cancer because of green tea consumption, nor did the risk for pancreatic cancer increase because of drinking green tea, either.



Making water at midnight is good for you, too.

Some scientists believe that your risk for bladder cancer may be reduced if you happen to be a person who wakes to empty your bladder often in the night, that is, if there are carcinogens (the agents that cause cancer) in your urine.

There have been only two small studies that have looked at this phenomenon, and the results did not come out the same. So, the authors of the study entitled, “Does increased urination frequency protect against bladder cancer?” designed a large, multi-center case-control study to find out the real answer. The results were published in the October 2008 issue of *International Journal of Cancer*.

Analyzing data from interviews with 884 patients from Spain who had newly diagnosed bladder cancer and 996 controls (people without bladder cancer) between 1998 and 2001, researchers found a consistent, inverse trend in risk with increasing nighttime urination frequency in men and women. People who went to the bathroom at least two times during the night were 40 to 50 percent less likely to have bladder cancer.

The protective effect of nocturia (tinkling at night) was apparent among study participants with low, moderate, and high water consumption. The risk associated with cigarette smoking was also reduced by nocturia. Compared with nonsmokers who did not urinate at night, current smokers who did not urinate at night had a higher risk than those who did at least twice per night. The investigators concluded that there does appear to be a protective effect of nocturia on bladder cancer risk.



CANCER PREVENTION CLINIC COMMENTARY

All of the studies described above are observational studies, meaning that participants were not randomly assigned to one group or another (example: eat 5 servings of broccoli each week vs. eat no broccoli) and followed over time. As such, they all have a risk that there was something about the study that makes the results unreliable. For example, if the difference in vegetable consumption for persons in the Japanese study wasn’t very big, or if both groups ate a fairly high level of vegetables (compared to the American diet), it could explain the lack of difference in cancer rates between groups.

When you hear the words “randomized clinical trials,” you’ll know that the methodology is usually sound and that the groups in the study were large enough to provide scientific conclusions that you can trust to be medically true.

How do you know which study to believe?

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The studies described in this issue show both the problems and promise of research about diet and cancer. What are you supposed to believe?

Experts agree that there are three main principles behind finding the real answers, and the key is with clinical studies.

1 First, when you hear a statement, called a hypothesis, you have to know where it came from and what evidence those making the statement have to back up their claim. You’ll hear the terms clinical study and observational study, but the two are not the same.

In clinical studies, the people involved in the study must have the same characteristics, except for the one thing that is being investigated. Observational studies, however, are not as tightly controlled, so the differences in the study groups are not always known.

In a randomized clinical trial, researchers don’t have to worry as much about their groups

being the same. They assign treatments randomly, like tossing a coin, so that individuals and their differences will be randomly allocated into groups as well.

2 Second, what role does statistical chance play? Every study has a chance to

come out with a “positive” finding when in fact there was no difference between groups (a false positive study) or a “negative” finding when in fact the groups did differ (a false negative study). Size is important. The bigger the group the more reliable the conclusions will be, but this does not eliminate the possibility of a false positive or false negative outcome.

3 Third, what does the supporting evidence for this study say? This evidence can come from other studies, whether they are laboratory, animal, observational, or other clinical studies. If one study tests something plausible that has a lot of supporting evidence, it is going to be more credible than just a study that tests something implausible without any supporting evidence.