

The BreastWatch Newsletter

Cuisine for Cancer Prevention

Volume 1, Issue 1

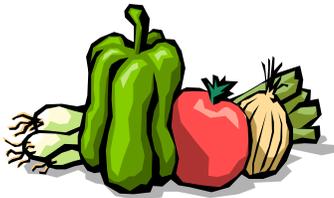
Summer 2000

A word from Henry

Well, it has finally happened! After several years of talking about publishing a newsletter for the BreastWatch and Cuisine for Cancer Prevention research programs, we have finally done it! Welcome to our first newsletter.

Special points of interest:

- Recipe contest
- Research update
- Research opportunities
- Summertime recipe



Our hope is to publish this newsletter quarterly. I know that many of you have experience in publishing newsletters, as have I. The nature of what to put into a newsletter is a constant challenge. I hope this publication will speak to your interests and needs as well as updating you on our programmatic activities. So, if you have suggestions regarding the newsletter, please email them to me at thompsonh@amc.org, or call at 303-242-3421. If the community of individuals concerned about breast cancer and its ultimate eradication through prevention and effective treatment contribute to the process of publishing this newsletter, I am sure that it will be successful.

Our newsletter will be reporting on the activities of two programs with which many of you are familiar, BreastWatch and Cuisine for Cancer Prevention. This creates something of a dilemma. What should we entitle the newsletter? Please contact us with your suggestions

In closing, I would like to thank those individuals who have been participants in either of our research programs. We believe that our programs are unique among the many excellent programs that exist throughout the U.S. The main reason for this is the commitment and dedication that you have shown to our research activities. Please accept our sincere... **Thank You!**

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More veggies, low fat...how good is it really?

Not many weeks ago, a series of newspaper articles reported the negative results of two research studies. These studies were designed to evaluate the effects of a low fat, increased vegetable and fruit diet or a dietary fiber supplement on the recurrence of colon polyps, a factor that predicts risk for colon cancer. In my judgment and that of many of my colleagues, the newspapers overstated the implications of these studies. To suggest that a prudent diet will not affect cancer risk based on these studies is an unfounded statement. In response to this situation, a group of scientists from around the country, of which I was a member, wrote an editorial that was offered to many newspapers for publication. It was published in the Denver Post. The editorial is provided for your consideration.

Cited from Denver Post, May 1, 2000 -Re: "Does high fiber diet really cut cancer?", April 20 news story.

The article on two reports in the most recent New England Journal of Medicine (April 20) may have left many Americans with a gravely mistaken impression.

It is important for the public to know that scientific evidence linking consumption of fruits and vegetables and whole grains to cancer prevention is clear and convincing. In study after study, components within these foods have demonstrated the ability to protect against many diseases including cancer.

The two NEJM studies failed to find a link between lowered risk for colon cancer and two kinds of diets: low-fat, high-fiber diets of fruits and vegetables and diets that include high-fiber cereal supplements. These two studies do not in any way suggest that individuals should abandon healthy diets as a means of cancer prevention.

Both studies involved only short term (four year) adjustments to the diet. It is known that colon cancer is a disease that can take decades to develop. Convincing epidemiological evidence suggests that a healthy diet has its greatest preventative effect as a lifelong commitment, not a stop gap measure.

Whether or not four years of fruits, vegetables, whole grains, and beans protect against cancer, there is ample and growing evidence that a lifetime of these foods will do so.

Research Update

In general we will adhere to the convention of sharing with you the results of our research that has successfully undergone peer review and that has either been published or is In Press. Our approach will be to provide you with the literature citation, and also present a lay summary of the work.

Citation

Thompson, H.J., Heimendinger, J., Haegele, A., Sedlacek, S.M., Gillette, C., O'Neill, C., Wolfe, P., and Conry, C. (1999) Effect of increased vegetable and fruit consumption on markers of oxidative cellular damage. *Carcinogenesis*, **20**, 2261-2265.

Background

In this paper we reported the results of our initial work in the Cuisine for Cancer Prevention Research Program. Based on our work in BreastWatch, we recognized the importance of identifying an easy to monitor chemical assay for assessing cancer risk. While there are currently no accepted blood or urine based assays for assessing breast cancer risk, we judged that there is a solid rationale for proposing cellular damage to DNA or cell lipid as a candidate marker. Our hypothesis is that since DNA damage increases the risk of mutation and an increased rate of mutation is associated with the risk for cancer changes in DNA damage, could serve as a surrogate for cancer risk. Since we are interested in identifying markers of risk that can be impacted by lifestyle, the goal of this work was to determine if increasing vegetable and fruit consumption would decrease cellular DNA damage or lipid oxidation.

Results: Our study consisted of a 2-week dietary intervention in which subjects were given a cookbook of recipes that prescribed everything they ate, and the amounts in which the foods were to be consumed. A limitation of these initial studies was that we did not determine the effects of eating a prescribed diet low in vegetables and fruit. We have subsequently done this.



We found that by increasing vegetable and fruit consumption to greater than 12 servings per day, that individuals experienced significant reductions in cellular DNA oxidation measured by one chemical analysis as well as a reduction in the oxidation of cellular lipids. While the cellular DNA damage assay was performed on DNA isolated from circulating white blood cells, lipid oxidation was measured in urine. A urine assay has the advantage of being both non-invasive and convenient. Another interesting finding was that the individuals who appeared to benefit most from the dietary intervention were those who had the lowest intake of vegetables and fruit at the beginning of the study.

Implications

While there are a large number of questions that we must pursue in continuing this work, these initial results support the value of consuming increased amounts of vegetables and fruit. Our next goal is to determine how much is enough and what types are best. For now we recommend that you consume 5-9 or more servings of vegetables and fruit per day, more specifically 2-4 servings of fruit and 3-5 servings of vegetables. Please consider selecting them from diverse sources. Mounting evidence indicates that vegetables may contain more beneficial chemicals than fruit, so you may wish to consider eating 1.5 to 2 times as many servings of vegetables per day as fruit. Particularly powerful chemicals appear to occur in two botanical families: Cruciferae and Liliaceae (Allium). Please refer to the table below for a listing of foods in these families.

Cruciferae

Broccoli
Brussel Sprouts
Cabbage
Cauliflower
Collard Greens
Kale
Kohlrabi
Mustard Greens
Rutabaga
Radish



Liliaceae

Asparagus
Chives
Garlic
Leeks
Onion
Scallion
Shallot



We Request Your Input

The world-wide web is a wonderful resource. Listed below are a few sites that our staff has found useful. Please share with us some of your favorite sites on health, nutrition, fitness, supplements and other related topics.

www.supplementwatch.com/sup-atoz/index.html

Contains information on supplements including: what it is, what it is used for, safety, scientific findings, and dosage. Also contains a "nutrition counselor" and articles.

www.herbs.org

Herb Research Foundation. Contains research and reviews on herbals.

www.usda.gov/cnpp/

Research Opportunities

We have two new Cuisine for Cancer Prevention opportunities coming up in August and September. These studies are:

The Nouveau Cuisine for Cancer Prevention

Research indicates that eating vegetables and fruit is an important aspect in living a healthy lifestyle. However, many questions remain to be addressed. In the Nouveau Cuisine project, we are asking the following question: How important is diversity of vegetable and fruit consumption?

The Nouveau Cuisine for Cancer Prevention study consists of a 2 week food plan in which you will be randomly assigned to one of three groups. Each group will be eating a different amount of vegetables and fruit as well as different families of vegetables and fruit.

You will be asked to purchase, prepare, measure, and eat the meals prescribed throughout the 2 week period. You will also be asked to attend a meeting before and after the study for blood and urine collection as well as group discussion and overall support.

The dates for the Nouveau Cuisine are as follows:

Begins: Saturday, August 5th

Ends: Saturday, August 26

(The dietary intervention will begin August 12 and will end August 26th)

The Challenge Cuisine

The Challenge Cuisine is designed to study the longer term effects of eating a healthy diet low in fat and high or low in vegetables and fruit. This diet will help participants learn how to adapt healthy eating patterns into their daily routine.

This study is an 8 week program in which participants will either be assigned to a reduced fat, high vegetable and fruit group, or a reduced fat, low vegetable and fruit group, which is high in grains.

To make the 8 week program easier to follow and more convenient for subjects, we will be working with Wild Oats Markets (1111 S. Washington, Denver), who will be providing half of the entrees to subjects free of charge.

We will also allow participants to eat 2 free meals a week in which they can eat what they choose. We have also designed a new cookbook which allows exchanges and more freedom for the participants.

Participants will be asked to purchase, prepare, measure, and eat food that is not provided by Wild Oats. Participants will be required to attend 5 meetings on mornings for urine collection as discussed and support.

September 16	November 4
October 7	November 18
October 21	

also be re-attend 5 Saturday blood and tion as well sion and

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Tabouli

Preparation Time: 30 minutes, Servings: 8

- 2 cups tomato juice or V-8 juice
- 2 cups bulgur
- 6 green onions, chopped (including some of the green tops)
- 2 tomatoes, diced
- 1 cucumber, diced
- ½ cup carrot, diced
- ½ cup celery, diced
- 2 cups parsley, chopped
- ¼ cup milt or cilantro, chopped (optional)
- ¼ cup olive oil (optional)
- ¼ cup lemon juice
- 2 tsp. ground cumin, or to taste
- Salt, to taste
- Black pepper, to taste
- Red pepper flakes, to taste

Serving size is 1 cup. Nutritional Analysis Per Serving: 219 calories, 8g fat (32% of calories from fat), 9g fiber, 0 mg cholesterol, 270mg so-

In a small saucepan, bring the tomato juice to a boil. Pour the tomato juice over the bulgur, set it aside for about 15 minutes to allow the bulgur to absorb the juice. Meanwhile, combine the remaining ingredients. Mix the bulgur with the vegetable mixture and chill before serving.

AMC

Cancer Research Center

Center for Nutrition in the Prevention of Disease

Recipe Contest

Do you have a favorite recipe that's loaded with fruits and/or vegetables? Your recipe could be a winner in our very first recipe contest. So get your creative juices flowing and stir up something really special!

Contest Rules:

- ◆ Each recipe should include at least 1 serving of fruits and/or vegetables per serving of the recipe and low in fat
- ◆ Mail entries by September 1, 2000 to Ann Wullschleger, AMC Cancer Research Center, 1600 Pierce Street, Denver, CO 80214 or email to wullschlegera@amc.org
- ◆ Enter your recipe into one of the following four categories:
 - *Entrée
 - *Salad/Side Dish
 - *Dessert
 - *Quick 'n Easy

Questions, Comments, Suggestions....

If you have any questions, comments or suggestions regarding this publication, please contact Becky Meinecke at

303-242-3421 or by email at

meinecke@amc.org

If you are interested in supporting Breast Cancer Prevention research...

Donations towards our research activities would be welcome. Please send a check made payable to:

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