

Breast Cancer **FACTS**, **MYTHS**, and **CHOICES**

March 2011 Issue 5



Epigenetics?

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Breast cancer: Windows of
Susceptibility.
NIH grant 1U01ES019480

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PINK RIBBON GIRLS

OUR MISSION

TO PREVENT the occurrence
of BCa through RESEARCH
and EDUCATION

TO ENCOURAGE and
SUPPORT BCa survivors,
friends and families.

The epigenetics of cancer is an exciting field. This is partly because one no longer needs to adopt a fatalistic attitude to tumorigenesis. It's known that many epigenetic changes are reversible, and by definition, are NOT due to direct changes in DNA sequence even though they impact gene expression.

There are many BIOACTIVE agents in our diet, i.e. molecules which actually regulate epigenetic events involved in tumorigenesis. BIOACTIVE dietary components impact epigenetic targets in cancer prevention and therapy as well.

Researchers have shown that some of these dietary agents are: curcumin (turmeric), genistein (soybean), tea polyphenols (green tea), resveratrol (grapes), and sulforaphane (cruciferous plants – cabbage, cauliflower, bok choy, and broccoli). The latter may be quite important in prostate cancer cells.

The BIOACTIVE compounds can alter the methyl groups on DNA and the changes in histones (see pictures in ISSUE 4) and in doing so influence some tumor-suppressor and tumor-promoting processes. **This makes your DIET, which you totally control, a KEY for wellness.**



1. Meeran SM, Ahmed A, Tollefsbol TO. Epigenetic targets of bioactive dietary components for cancer prevention and therapy. Clin Epigenetics 2010 Dec; 1: 101-116. <http://www.ncbi.nlm.nih.gov/pubmed/21258631>

2. http://en.wikipedia.org/wiki/Cruciferous_vegetables (a great list)

3. Hien T. Le , Charlene M. Schaldach , Gary L. Firestone ¶ and Leonard F. Bjeldanes. Plant-derived 3,3'-Diindolylmethane Is a Strong Androgen Antagonist in Human Prostate Cancer Cells J. Biol. Chem., Vol. 278, Issue 23, 21136-21145, June 6, 2003.

RESEARCH PARTNERS



QUESTION:

We continually hear that we should cut down on fat intake. BUT are all FATS bad? AND WHERE CAN I FIND the “GOOD” fats (EFA, essential fatty acids)?

Breast Cancer Risk: Windows of Susceptibility

NIEHS 1U01ES019480-01:
<http://eh.uc.edu/mythfactchoices/>

ANSWER:

It seems like for decades the information given to the public (you and me) is that all dietary fats are bad for our health, but in fact, there are good fats, those good dietary fats without which we would suffer. In fact, even a bad balance between the bad fats and good fats is, *NOT GOOD*. So, NO, not all dietary fats are bad, and the good fats can help control weight and improve overall health.

FACTS:

Ask Dr. Sears website says “The two most important essential fatty acids are linolenic acid (also known as an omega 3 fatty acid) and linoleic acid (also known as an omega 6 fatty acid). The omega number describes where the important carbon atom is located on the fat molecule. If this atom is third from the end, the fatty acid is known as an omega 3 fatty acid... If it's sixth from the end, it's known as an omega 6 fatty acid. Omega 3 fatty acids especially have a valuable role in reducing the risk of heart disease and building healthy brain cells. The standard American diet (SAD) is sadly deficient in omega 3s, found mainly in plant foods (especially canola oil and flax oil, soybeans, and walnuts) and seafood.

SOLUTIONS:

Here is a quote from the “Ask Dr. Sears” website. “This is good news for those of us who have learned to “fear fat” in our diets. ESSENTIAL FATTY ACIDS - ESSENTIAL FOR WELL-BEING” We need a lower fat diet, but need the right fats. Good fats benefit the body in the following ways according to Dr. Sears.

Lowers the risk of breast and colon cancer
Improve learning
Improve attention span in school-children
Improve cognitive function in the elderly
Elevate mood, resulting in less depression
Lower the risk of cardiovascular disease
Promote healthy skin
Improve vision, especially night vision

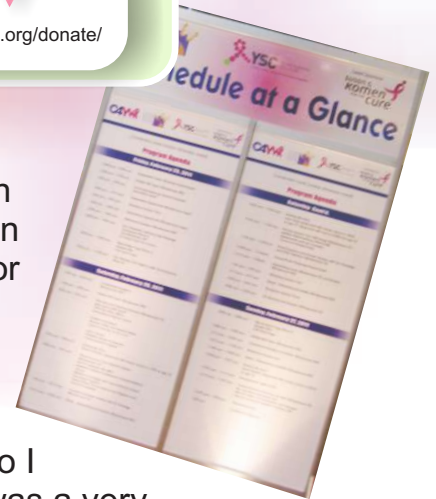
THE “avoid” LIST for high saturated fats

cookies	corn chips
airline snack foods	stuffings
some crackers	spoonable dressing
french fries	potato chips
pies	some peanut butters
shortening	candy bars
pot pies	fast-food shakes
deep-fried burgers	nondairy creamer
pretzels	some cereals
fried chicken	cakes
doughnuts	margarine
fried potatoes	biscuits
muffins	

<http://www.askdrsears.com/html/4/t041300.asp#T041305>

COMMUNITY PARTNERS

A forum for information and support



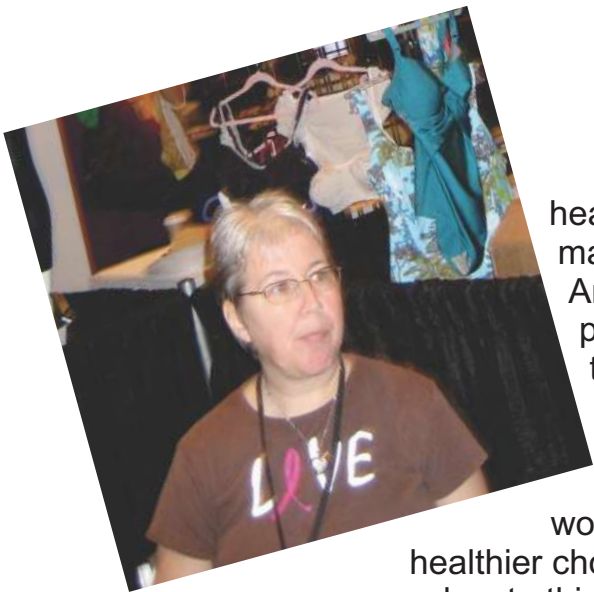
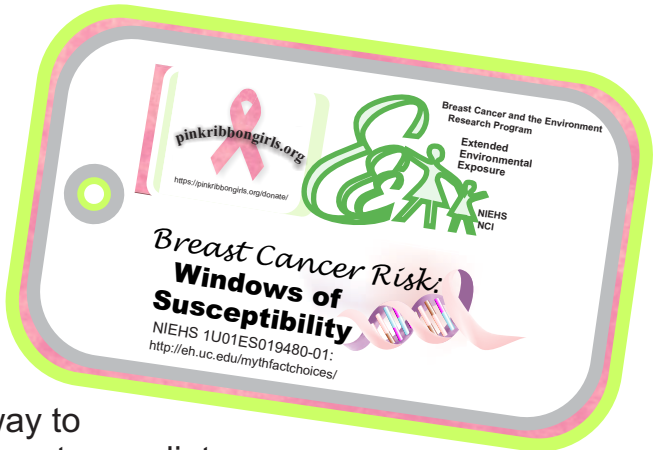
I traveled to the Annual Conference for Young Women Affected by Breast Cancer the weekend of February 25-27 in sunny Orlando Florida. Being a young breast cancer survivor the idea of attending the conference's educational workshops and helping out at the Pink Ribbon Girl booth was a great way to spend my weekend.

A low fat diet is a key element of this research study so I was interested in a workshop related to a healthy diet so I attend Dr. Ro's "Healthy Living: Food and Fitness". Dr. Ro was a very entertaining speaker and shared her story of growing up in the South. Her childhood diet consisted of pig's feet, chitlins, fried chicken, and collard greens cooked in fat. She explained that she became interested in nutrition as a young girl when she realized the food choices that her relatives, neighbors and friends made resulted in debilitating diseases and even death. When her neighbor's legs had to be removed as a result of his diabetes this became a wakeup call. Also during her childhood, Dr. Ro lost her mother at the age of nine to metastatic stomach cancer, another wakeup call. She became aware of the relationship of food and the effects food has on the body. Growing up we have all been exposed to food traditions of our families that are past down from generation to generation. Dr. Ro explained that these traditions help to shape our way of life but we must also

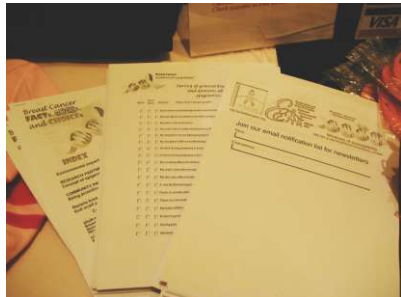


realize their impact on our health. We need to think about how our bodies process food and to choose foods that will help our bodies develop and grow. Taking the food traditions from our past and changing the recipes so that they are more





healthful is just one way to make a positive change to our diet. Another choice we can make is to incorporate exercise as part of our daily routine. I am not saying that we all need to join the gym, but we can make healthier decisions throughout the day. For example, taking a flight of stairs instead of riding the elevator is a choice we can make to improve our health. Dr. Ro encouraged the workshop participants to reexamine their diets and make healthier choices when preparing their favorite recipes. She also encouraged us to think about what we could do every day to improve our health and increase our physical activities.



Slides for presentation, Mar 2011

FACT:

Vegetable oils with unsaturated fats can and help lower breast cancer risk.

MYTH:

all dietary fats are the same...

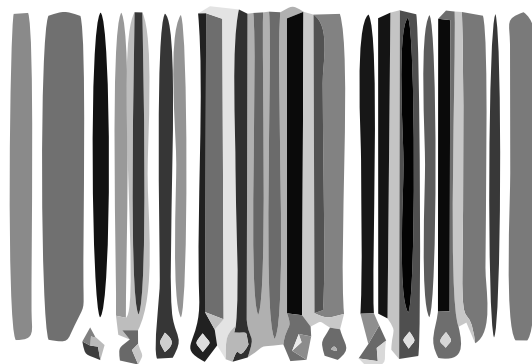
QUESTION

..what is a good source of **GOOD** oils?

CHOICES

Choose fish oils, flax oils, olive oils, and other vegetable oils in **MODERATE** amounts

read the label on your food package



Slides for presentation, Mar 2011

FACT:

Check the label on your low fat foods. Often high salt and sugar replace the fat for taste.

MYTH:

Diet margarine is better for me than butter

QUESTION

..what ingredients in low calorie margarine should I select???

CHOICES

Look for oils high in omega-3 and 6 fatty acids, like vegetable oils, and for low sugar and sodium.

Slides for presentation, Mar 2011

FACT:

Processed sugars cause an elevation in insulin levels, which signals the body to “store fat”

MYTH:

My granola bar and low fat crackers are great nutrition!

QUESTION

...what carbs can I eat without spiking my insulin levels??

CHOICES

Most fruits and vegetables and some heavy grain breads have good carbs

MODERATION*VARIETY* BALANCE

FULLSTOP

We have not yet begun to use kind words in such abundance as they ought to be used.” Blaise Pascal

COMMUNITY PARTNERS

MARCH **Neat** RECIPE

**Delete the word diet from your vocabulary, instead,
think: EAT WELL EAT WISE EAT NEAT EAT SAVVY**

<http://www.everythingro.com/recipes.html>

A recipe from the site of Dr. Ro, whose breast cancer conference was attended by Pink Ribbon Girl and Windows of Susceptibility partner, Liz Kelly. The website from whence the recipe came is above.

Dr. Ro's Bell Ringin' Spinach Salad with
Strawberries and Raspberry Vinaigrette

2 pounds fresh spinach
1 cup fresh strawberries, halved
1 cup sliced red bell peppers
Raspberry Vinaigrette (recipe follows)
¼ cup fresh raspberries

Wash the spinach and drain in a colander. Place the spinach in a large bowl and add $\frac{3}{4}$ of the strawberries and the peppers. Pour the vinaigrette over the salad and toss. Sprinkle with the remaining fruit. Serves 4.

Link up to the website above to see the recipe there.

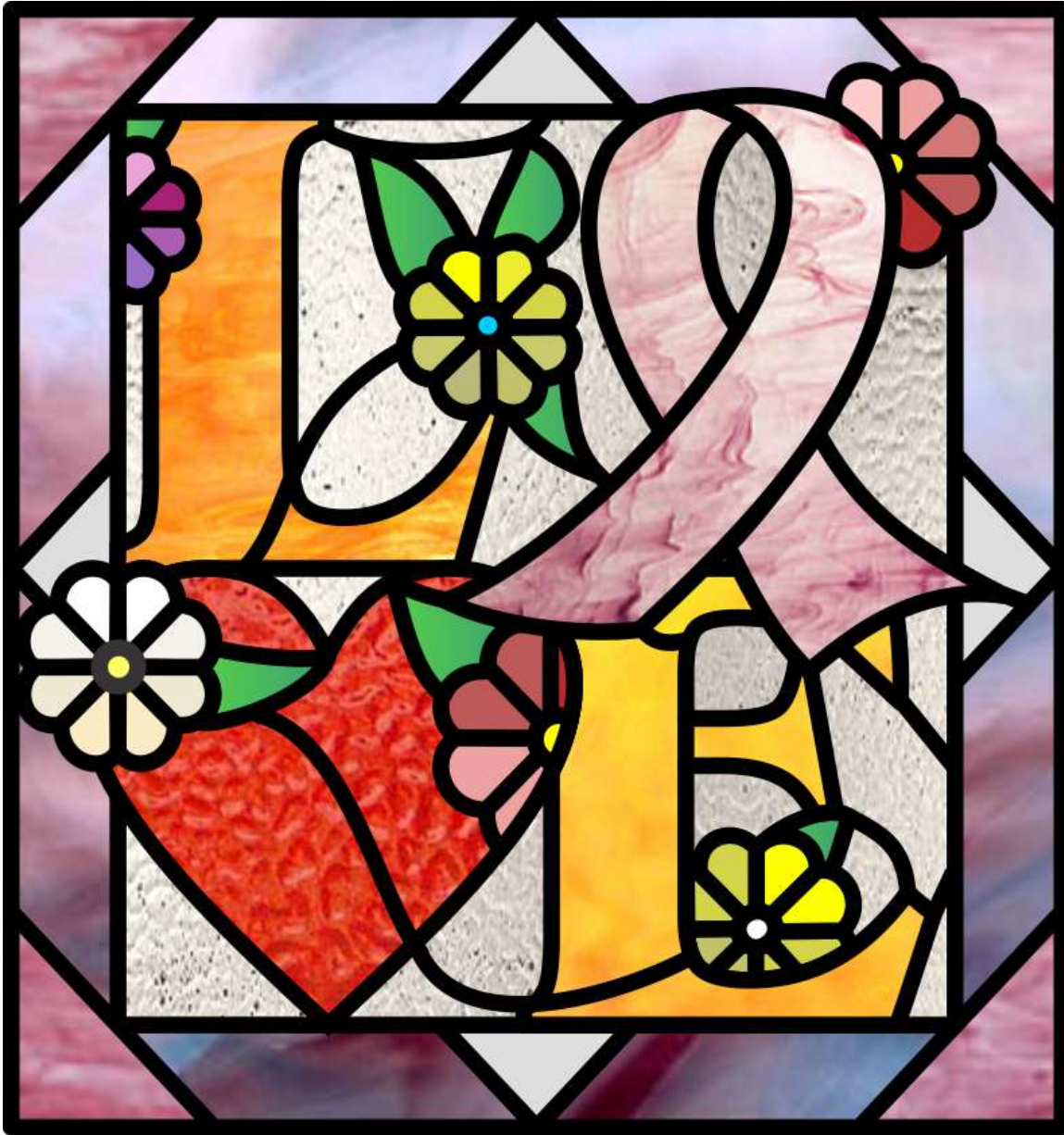


Here is an interesting healthful-eating presentation.

<http://flatbelly.naviibk.com/flatbelly?tid=Gzrzuw97H11D9M3>

COMMUNITY PARTNERS

**A forum for information and support --
Breast cancer ribbon and heart and flowers
jpg to print on a transfer for tee-shirts and
backpacks, etc.**



COMMUNITY PARTNERS



If your iron-on transfer needs to be **mirrored** here is mirrored image. Check the directions on your particular brand of transfer, check to see if it needs to be printed on an ink jet or a laser jet printer.

