

made about their breast cancer treatment, according to a study by University of Michigan researchers, Reuters Health reports. Women with breast cancer vary in their preferences for how to make decisions about their treatment, with some preferring to play a larger role in deciding whether to have a mastectomy or lumpectomy and others preferring to have a smaller role in the decision. Study author Sarah Hawley said that a "mismatch" between a woman's preferences and the treatment decision has been linked with a poorer quality of life later on.

To examine whether perspectives about treatment decisions varied by ethnicity, Hawley and her colleagues surveyed 2,030 women who were diagnosed with early-stage breast cancerWhen looking at women's satisfaction with the decisions, Spanish-speaking Hispanic women were 5.5 times more likely to be dissatisfied with the decision-making process than whites and 4.1 times more likely to regret the decision that was made. English-speaking Hispanic women were about 2.6 times more likely than whites to be dissatisfied, and twice as likely to regret the decision. Black women were about twice as likely as whites to be dissatisfied or regretful.

...Researchers noted, "These results ... suggest that additional effort may be needed by clinicians to ensure that information is understandable and culturally appropriate and improve the decision making for all breast cancer patients" (Harding, Reuters Health, 11/4).

An abstract of the study is available at <http://www.ncbi.nlm.nih.gov/pubmed/18786799>

2. Women of Color Distrust Medical System More

Study finds levels of skepticism correlate with lower cancer screening rates

HealthDay

(Feb. 6, 2009) Women of color, especially black women, have more distrust of the medical system, which leads to delays in screening for breast cancer, new research shows. Almost half of all women agreed that they had "sometimes been deceived or misled by health-care organizations." Eighteen percent strongly agreed with the statement.

On another gauge of mistrust, 39 percent of black women agreed that "health-care organizations don't always keep your information totally private," versus 15 percent of Latinas and 9 percent of Arab-American women. More mistrust corresponded with lower screening rates.

"While insurance obviously plays a large role in screening [94 percent of blacks had insurance, 45 percent of Latinas and 43 percent of Arab-American women], we can't ignore that medical mistrust plays a large role. We need to think about tailoring our interventions," said study author Karen Patricia Williams, an assistant professor at Michigan State University's College of Human Medicine in Lansing.

The study was presented Thursday at the American Association for Cancer Research's

Conference on the Science of Cancer Health Disparities, in Carefree, Ariz....

3. Some Black Women with Advanced Breast Cancer Opt Against Treatment, Study Finds

Kaiser Health Disparities Report

http://www.kaisernetwork.org/daily_reports/rep_index.cfm?DR_ID=58593

(May 26, 2009) A new study has found that some black women with advanced breast cancer declined treatment with chemotherapy or radiation, though researchers did not know the reason why so many of the women opted against treatment, HealthDay/Las Vegas NOW reports. For the study, researchers examined records for 107 women with cases of advanced breast cancer that were reported at one inner-city hospital between 2000 and 2006. Eighty-seven percent of the women were black, and 29% of them had breast cancer tumors that did not respond well to new, targeted treatments. Of all women, 20.5% declined chemotherapy and 26.3% opted against radiation.

Lead researcher Monica Rizzo, an assistant professor of surgery at the Division of Surgical Oncology at the Emory University School of Medicine, said the reason why the women declined treatment is not clear, adding, "We looked at marital status, as well as religious background, of those women, and unfortunately, we were not able to find any clear identifier." Researchers speculated that fear of the medical system, poverty and cultural differences might play a role. Rizzo's group has started a community outreach program through which a nurse practitioner and social worker follow up with breast cancer patients.

4. Two-Thirds of Hispanic Women Discover Breast Cancer Themselves

But half wait at least a month before seeking help, research shows

HealthDay

(Feb. 5, 2009) Most breast cancers in Hispanic women are detected by the women themselves, despite high rates of screening mammography in this population, a new study shows. What's troubling, however, is that about half of all women who noticed an abnormality waited at least a month before seeking medical help, according to new research being presented at the American Association for Cancer Research Conference on the Science of Cancer Health Disparities, in Carefree, Ariz.

Two-thirds of breast cancers in Hispanic women are discovered by accident, while only 23 percent come to light through a mammography and another 6 percent through a clinical exam. Yet screening mammography rates were 83 percent among U.S.-born Hispanic women and 62 percent among non-U.S.-born Hispanic women, said researchers from The University of Arizona Mel and Enid Zuckerman College of Public Health.

Why did women wait so long before seeking help? Largely because of lack of health insurance or other ways to afford medical care, study author Rachel Zenuk said during a Wednesday teleconference on the findings.

The study is one of several being presented at the conference that look at breast cancer issues among Hispanic women....

5. Black Women at Higher Risk for Aggressive Breast Tumors

Triple negative growths 3 times more likely regardless of age, weight, study finds
HealthDay – by Robert Preidt

(March 25, 2009) Black women are three times more likely than women of other races to develop aggressive breast cancer, a U.S. study finds. The United States has the highest rate of cancer in the world. Black women have a lower overall rate of breast cancer than white women, but when black women do get breast cancer, it's often more advanced when it's diagnosed, is more likely to return after treatment, and has a less favorable outcome.

In this study, Boston University School of Medicine researchers analyzed data on 415 breast cancer cases...."The odds of having a triple negative tumor were three times higher for black women than for non-black women in the study," research leader Dr. Carol Rosenberg said in a news release. "Previously, it was known that premenopausal black women had more triple negative tumors. What we found that was new was that these tumors were just as common in black women diagnosed before or after age 50, and in those who were or were not obese."

"The higher prevalence of triple negative breast tumors in black women in all age and weight categories likely contributes to black women's unfavorable breast cancer prognosis," Rosenberg said.

The study was published recently in the journal *Breast Cancer Research*.

PREVENTION

6. Vigorous Exercise Protects Against Breast Cancer

Reuters Health

(Oct. 31, 2008) Plenty of vigorous exercise can cut a healthy, older woman's breast cancer risk by 30 percent, researchers said on Friday. A study of more than 30,000 postmenopausal women showed that strenuous activity -- ranging from housework such as scrubbing floors to running -- protected against breast cancer even among those who do not have a higher risk, the researchers said. The effect was clearest among lean women.

"We know that being overweight puts women at increased risk of breast cancer," said Michael Leitzmann, who led the study while at the National Cancer Institute of the U.S. National Institutes of Health. "What our study shows is that even among women without this increased risk, if they exercise they can get some benefit." A number of studies have shown that regular strenuous exercise can help people avoid heart disease, cancer and a range of other conditions.

Leitzmann and colleagues used questionnaires to determine how often the women exercised vigorously. All were healthy when the study began. After 11 years the researchers found that overall the volunteers who exercised most were 13 percent less likely to have developed breast cancer.....

Reference: Breast Cancer Research, Oct. 31, 2008. Free full text available at <http://breast-cancer-research.com/content/10/5/R92>

7. Study Finds Community Physical Activity Programs Are Money Well Spent

Centers for Disease Control and Prevention

<http://www.cdc.gov/media/pressrel/2008/r081114.htm>

(Nov. 14, 2008) Community-based physical activity interventions designed to promote more active lifestyles among adults are cost-effective in reducing heart disease, stroke, colorectal and breast cancers, and type 2 diabetes, according to a study by the Centers for Disease Control and Prevention, with support from the Robert Wood Johnson Foundation. Using a rigorous economic model developed to assess the cost-effectiveness of community-based physical activity interventions, the study found these interventions to be cost-effective; reducing new cases of many chronic diseases and improving quality of life.

Researchers found that community-based physical activity programs appeared to reduce new cases of disease by: 5-15 cases per 100,000 people for colon cancer; 15-58 cases per 100,000 for breast cancer; 59-207 cases per 100,000 for type 2 diabetes, and 140-476 cases per 100,000 for heart disease.

Community-based physical activity interventions broadly fall under the following strategies:

- * Community campaigns such as mass communication efforts (TV/radio, newspapers, billboards, advertisements).
- * Social support networks such as exercise groups to encourage behavior change.
- * Tailored behavior change to encourage people to set physical activity goals and monitor their individual progress.
- * Enhanced access to services that support active lifestyles such as fitness centers, bike paths and walking trails.

“Our study found that public health strategies that promote physical activity are cost effective, and compared with other well-accepted prevention strategies, such as treatment for high cholesterol or motor vehicle air bags, offer good value for the money spent,” said Larissa Roux, M.D., Ph.D., lead author of the study.

The study is being published in the online version of the American Journal of Preventive Medicine. [Full text is available at [http://www.ajpm-online.net/article/S0749-3797\(08\)00770-8/fulltext](http://www.ajpm-online.net/article/S0749-3797(08)00770-8/fulltext)]

8. Diet Tied To Survival in Breast Cancer Patients

Reuters Health - by Amy Norton

(Jan. 5, 2009) Women with early-stage breast cancer may live longer if they maintain a diet rich in fruits, vegetables, whole grains and low-fat dairy, a new study suggests. This so-called "prudent" diet was not linked to a lower risk of death from breast cancer specifically. However, researchers found, breast cancer patients who ate this way were less likely to die from other causes over the eight-year study period.

"Consumption of a diet high in fruits, vegetables, whole grains, and poultry, and low in red meat and refined foods may positively influence a woman's overall health and prevent other cancers and chronic diseases," Dr. Marilyn L. Kwan, a researcher at Kaiser Permanente in Oakland, California, told Reuters Health. The results are also consistent with past studies suggesting that diet may be a more important factor in general health and diseases other than breast cancer than it is in breast cancer survival specifically, according to Kwan and her colleagues.

The findings, published in the Journal of Clinical Oncology, are based on 1,901 women diagnosed with early-stage breast cancer. Between 2000 and 2002, the women completed detailed questionnaires on their diet, exercise habits, weight and other health factors. They were then followed for up to eight years.... Women with the highest intakes of healthier foods were about half as likely to die during the study period as women with the lowest intakes, even with other important factors taken into account -- like the initial size of the breast tumor, the treatment type and patients' smoking habits. Conversely, women with the most Western eating habits had a 53 percent higher risk of death overall than those with the lowest intakes of those foods....

Reference: Journal of Clinical Oncology, online December 29, 2008.

9. "Prudent" Diet Linked To Lower Breast Cancer Risk

Reuters Health

http://www.nlm.nih.gov/medlineplus/news/fullstory_90110.html

(Oct. 1, 2009) A diet rich in fruits, vegetables and whole grains, and low in sweets and processed meats, may help lower the risk of breast cancer in some African-American women. In a study of more than 50,000 African-American women, researchers found that thinner and younger women who ate a generally "prudent" diet were less likely to develop breast cancer than their counterparts who maintained a more Western-style diet.

There was no evidence that healthier eating lowered the risk among overweight women, or those past menopause. However, the prudent diet was linked to a generally lower risk of estrogen receptor-negative breast cancer -- an aggressive type of tumor that accounts for about one-third of breast cancers. The prudent diet is one rich in whole grains, fruits, vegetables and fish, and lower in red and processed meats, sweets and starchy carbohydrates, like white bread. The opposite pattern is true of the so-called Western-style diet.

The new findings, published in the American Journal of Clinical Nutrition, add to the understanding of how these diet patterns may affect breast cancer risk in different groups of women....

10. "Glycemic Load" of Diet Tied To Breast Cancer Risk

Reuters Health

(July 10, 2009) The amount of carbohydrates a woman eats, as well as the overall "glycemic load" of her diet, impact her chances of developing breast cancer, Swedish researchers report. The concept of glycemic load is based on the fact that different carbohydrates have different effects on blood sugar. White bread and potatoes, for example, have a high glycemic index, which means they tend to cause a rapid surge in blood sugar. Other carbs, such as high-fiber cereals or beans, create a more gradual change and are considered to have a low glycemic index.

Dr. Susanna C. Larsson of Karolinska Institute in Stockholm and colleagues analyzed data on 61,433 women who completed "food frequency" questionnaires in the late 1980s. Over the course of about 17 years, 2952 women developed breast cancer and, according to the investigators, glycemic load "was significantly positively associated with risk of overall breast cancer." Women with higher glycemic load diets were more apt to develop breast cancer. In addition, carbohydrate intake, glycemic index and glycemic load were all positively associated with risk of a certain type of breast tumor - namely, estrogen receptor (ER)-positive/progesterone receptor (PR)-negative breast cancer.

...The investigators speculate that high-glycemic load diets may boost breast cancer risk by increasing concentrations of insulin and sex hormones in the body, which may contribute to the development and spread of breast cancer cells. The findings support the benefits on breast health of a diet high in healthy "low glycemic index" foods.

Reference: International Journal of Cancer, July 2009.

11. Red and Processed Meats May Be Unhealthy

Natural Standard

<http://naturalstandard.org/>

(Apr. 2009) A recent study supports growing evidence that eating too much meat may be unhealthy. Researchers from the U.S. National Cancer Institute found that a diet rich in red and processed meats increased the risk of death, particularly from cancer and heart disease. In the study, published in the Archives of Internal Medicine, researchers analyzed data from more than half a million people (aged 50-71) who were enrolled in the National Institutes of Health-AARP Diet and Health Study. Meat intake was estimated through a food questionnaire....

In those who ate the most processed meat, the overall risk of death increased by 16 percent in men and 25 percent in women, compared to those who ate the least. The risk of fatal cancer increased by 12 percent in men and 11 percent in women, while the risk of

fatal heart disease increased by nine percent in men and 38 percent in women. In contrast, people who ate higher proportions of white meat, such as turkey, chicken or fish, were less likely to die during the study period than those who ate the lowest proportions...

It has been suggested that cancer risk may be increased by compounds called heterocyclic amines (HCAs), which are formed when red meat is cooked at high temperatures. HCAs have been linked to various cancers, including stomach, colorectal, pancreatic and breast cancers in humans....

12. Pectin May Fuel Fruits' Cancer-Fighting Ability

Reuters Health - by Amy Norton

(Oct. 29, 2008) A complex carbohydrate called pectin may help explain why diets rich in fruits and vegetables can lower cancer risk, according to scientists. In lab experiments, UK researchers found that particular components of pectin bind to, and possibly inhibit, a protein believed to facilitate the spread of cancer throughout the body. The findings, published in the FASEB Journal, offer up one more reason to get your fruits and vegetables, according to the investigators. They also support past research suggesting that modified forms of pectin could help battle cancer, the investigators say.

Previous research has shown that modified pectin can kill or prevent the spread of tumor cells in the test tube, explained Patrick Gunning, the lead researcher on the new study. These latest findings, he told Reuters Health, point to the mechanism by which pectin may offer cancer protection.

Gunning and his colleagues at the Institute of Food Research in Norwich found that certain sugars in pectin bind to galectin-3, a protein on the surface of tumor cells that helps the cells grow and spread throughout the body. This binding, in turn, may allow pectin to inhibit galectin-3, and thereby slow or even reverse the spread of cancer cells, Gunning explained.... "At present," he said, "given what we know from our study and the others, we feel that the best advice is to eat plenty of fruit and vegetables in the likelihood that it will supply bioactive fragments from the pectins."

Reference: The FASEB Journal, online October 2, 2008. Abstract at <http://www.fasebj.org/cgi/content/abstract/fj.08-106617v2>.

13. Walnuts Found to Reduce Risk of Breast Cancer

Natural News - by David Gutierrez

http://www.naturalnews.com/027074_walnuts_cancer_tumors.html

(Sept. 22, 2009) A diet high in walnuts may significantly decrease a person's risk of breast cancer, according to a study conducted by researchers from the Marshall University School of Medicine and presented at a conference of the American Association for Cancer Research. Researchers fed mice that had been genetically engineered to develop breast tumors either a normal diet, or the same diet supplemented with a daily dose of walnuts. Typically, 100 percent of these mice would have developed

breast tumors by the age of five months. In the mice who had been fed walnuts, however, tumors did not develop for an extra three weeks. In addition, mice in the walnut group had fewer tumors, fewer cancerous glands and their tumors were smaller.

Researcher Elaine Hardman noted that three weeks is a significant chunk of a mouse's average six-month lifespan. "Since most cancers develop when you're older, if you could increase the time until the cancer develops even 15 percent, then that's a considerable delay, and you might die from something else before the cancer ever showed up!" she said.

A chemical analysis showed that omega-3 fatty acids, antioxidants and phytosterols contained in walnuts all contributed to the mice's tumor resistance....

14. Study Finds Breast Cancer-Fighting Properties within Button Mushrooms

Natural News - by Cindie Leonard

http://www.naturalnews.com/027075_cancer_brst_cancer_mushrooms.html

(Sept. 22, 2009) A recent study published in the International Journal of Cancer found evidence supporting that mushrooms have breast cancer-fighting properties. This study was conducted at the University of Western Australia in Perth. The study included 2,018 Chinese women. Half of the women were diagnosed with breast cancer. After adjusting for lifestyle patterns such as education, smoking, overeating, and exercise levels, the researchers discovered that the women who ate at least 10 grams of button mushrooms per day were 64 percent less likely to develop breast cancer. Dried mushrooms also significantly reduced the risk, but not as much as fresh mushrooms.

A substance found in mushrooms called linoleic acid may be the key to the reduced risk of breast cancer. Linoleic acid inhibits aromatase activity. Aromatase is an enzyme that helps the body produce estrogen. High estrogen levels are a well-known risk for breast cancer. As many breast cancers depend on estrogen to grow, the aromatase-inhibiting actions of mushrooms may be responsible for the reduced risk. Aromatase inhibitors are used as treatment to prevent certain types of breast cancers from recurring. Examples of these drugs are Arimidex, Femara, and Aromasin.

This study also revealed that women who combined a mushroom diet with regular consumption of green tea saw even greater benefits: a reduced risk of almost 90 percent. This well-known antioxidant and anti-inflammatory helps prevent breast cancer by decreasing the amount of estrogen a woman's body produces. (Like cholesterol, estrogen has a good kind and a bad kind -- and an excess of the bad can promote breast cancer.)....

15. New Research Confirms Vitamin D Blocks Formation of Breast Cancer

NaturalNews - by David Gutierrez

<http://www.naturalnews.com/z025397.html>

(Jan. 23, 2009) Women with a higher vitamin D intake may be a quarter less likely to die from breast cancer than women with lower levels, scientists have found. In a study

published in the American Journal of Epidemiology, researchers from Mount Sinai Hospital in Toronto analyzed the vitamin D intake of 759 breast cancer patients and 1,135 women without breast cancer, accounting for both dietary intake and vitamin D production from exposure to sunlight. They found that women with a higher vitamin D intake had a 24 percent lower risk of acquiring hormone receptor-positive breast cancer than women with a lower vitamin intake.

"Few epidemiologic studies have considered the association between vitamin D and hormone-receptor-defined breast cancer," the researchers wrote. Hormone receptor-positive breast tumors have their growth stimulated by the female sex hormones estrogen and progesterone, and are the most common form of breast cancer diagnosed in the United States.

The researchers also found that women with higher vitamin D intake had a 26 percent lower risk of developing hormone receptor-negative tumors, however, and a 21 percent lower chance of developing mixed-receptor tumors, which are receptive to only one hormone type. Unlike the correlation with receptor-positive tumors, these correlations were not statistically significant. "This study suggests that vitamin D is associated with a reduced risk of breast cancer regardless of [hormone receptor] status of the tumor," the researchers wrote....

16. Elevated Insulin Levels Linked to Breast Cancer

Study finds strong association in postmenopausal women

HealthDay – by Peter West

(July 23, 2009) Postmenopausal women with elevated insulin levels may be at higher risk of developing breast cancer, a new study says. Researchers at Albert Einstein College of Medicine of Yeshiva University in New York City found a strong association between elevated insulin levels in the blood and increased risk of breast cancer. Their findings were published online in the International Journal of Cancer.

"Up to now, only a few studies have directly investigated whether insulin levels are associated with breast cancer risk," said Geoffrey Kabat, the lead author and senior epidemiologist in the department of epidemiology and population health at Einstein. "Our study involved analyzing repeated measurements of insulin taken over several years -- which provides a more accurate picture of the possible association between insulin levels and breast cancer risk."

..."This finding is potentially important because it indicates that, in postmenopausal women, insulin may be a risk factor for breast cancer that is independent of obesity," Kabat said in the news release. The study is ongoing, but Kabat recommended that postmenopausal women try to keep insulin at normal levels through weight loss, regular exercise and other methods.

17. Drop in Breast Cancer Rates Due to Drop in Hormone Replacement Therapy

HealthDay

(Feb. 4, 2009) A new analysis shows that the drop in breast cancer cases that began in 2003 is indeed due to women stopping hormone replacement therapy (HRT) after a large, U.S. study showed surprisingly higher rates of heart problems and breast cancer among users of some kinds of HRT. Some experts have suggested such a theory explains the trend, while others have said it might be related to changes in mammography use. "If you stop hormones, the risk of breast cancer [associated with hormone use] rapidly declines," said Dr. Rowan Chlebowski, a medical oncologist at Los Angeles Biomedical Research Institute at Harbor-UCLA Medical Center and lead author of the analysis in the Feb. 5 issue of the New England Journal of Medicine.

Based on that analysis and another recent review, the researchers also suggested that the "safe" period for combined use of progestin and estrogen to relieve postmenopausal symptoms was probably about two years, not the approximately five years researchers have discussed previously.

To get to the root of the drop in breast cancer cases, Chlebowski and his colleagues looked at data from the Women's Health Initiative (WHI) clinical trial (more than 15,000 women were assigned to either a placebo or HRT) and an observational study in which more than 25,000 women were on HRT, and more than 16,000 were not. The part of the WHI that looked at combined hormone therapy was halted in 2002, as soon as researchers saw surprisingly higher rates of heart problems and breast cancer in women assigned to take the combined HRT (but not estrogen alone).

When Chlebowski's group looked in more detail and at shorter intervals for the effects of HRT, they found that during the initial two years, the HRT group participating in the clinical trial had fewer breast cancer diagnoses than the placebo group. However, the number of breast cancer cases in that group increased over the 5.6-year study period. The risk decreased rapidly in both groups after they stopped the pills, even though both groups had mammograms with similar frequency. That fact weakens the argument that the drop in breast cancer cases was due to fewer women getting mammograms, he noted....

TREATMENT AND RECOVERY

18. Mastectomy Rates Are Rising; Breast-Conserving Surgery Rates are Falling

Can preoperative MRI be responsible?

Journal Watch General Medicine— Allan S. Brett, MD

(Oct. 1, 2009) Twenty years ago, randomized trials showed that survival after breast-conserving therapy (lumpectomy plus radiation) was equivalent to survival after mastectomy for women who had localized breast cancer. At that time, more women began choosing breast-conserving therapy, and mastectomy rates dropped. However, recent surveys suggest that this trend is reversing: One theory is that increasing use of preoperative magnetic resonance imaging (which detects more occult lesions, both benign and malignant, than does mammography) is at least partly responsible.

Mayo Clinic researchers identified 5405 women who underwent breast cancer surgery from 1997 through 2006. Mastectomy rates decreased from 1997 to 2003 (from 45% to 31%) but increased from 2003 to 2006 (from 31% to 43%), when women increasingly underwent preoperative MRI. During the latter interval, MRI recipients were significantly more likely to undergo mastectomy than were MRI nonrecipients (54% vs. 36%). However, mastectomy rates also increased among those who did not undergo MRI; undergoing MRI was only one of many variables that were associated independently with mastectomy in a multivariate analysis.

The observed increase in mastectomy rate is occurring in the absence of any new evidence that long-term outcomes are better with this approach than with breast-conserving approaches. Increasing use of preoperative MRI explains only some of this trend. Editorialists call the increasing use of preoperative MRI "regrettable" and the increasing rates of mastectomy "troubling."

Reference: Katipamula R et al. Trends in mastectomy rates at the Mayo Clinic Rochester: Effect of surgical year and preoperative magnetic resonance imaging. *J Clin Oncol* 2009 Sep 1; 27:4082. Abstract at <http://www.ncbi.nlm.nih.gov/pubmed/19636020?dopt=Abstract>

19. Research Reveals Why Tamoxifen Doesn't Always Work

Receptors on the surface of breast cancer cells may be the key, scientists say

HealthDay - by Robert Preidt

<http://health.usnews.com/articles/health/healthday/2008/10/30/research-reveals-why-tamoxifen-doesnt-always-work.html>

(Oct. 30, 2008) Scientists have uncovered new clues to how breast cancer cells become resistant to the widely-used prevention and treatment drug tamoxifen. The findings, from a team at Georgetown University Medical Center (GUMC), in Washington, D.C., could provide a way to identify tamoxifen users who have become resistant, so that doctors can try a better treatment option sooner. According to the study, tamoxifen-resistant breast cancer cells display few of the "alpha" estrogen receptors that the drug is designed to bind with and inhibit. Instead, they display many more "gamma" estrogen-related receptors, which tamoxifen appears to activate, the researchers said....

The study, published in the Nov. 1 issue of the journal *Cancer Research*, offers two important new insights, according to lead author Rebecca Riggins, research assistant professor of oncology at GUMC's Lombardi Comprehensive Cancer Center. First, it gives a clearer understanding of the importance of the gamma estrogen-related receptor in breast cancer. "Until now, this receptor has not been viewed to be of much importance in any type of breast cancer. All that was known is that there were more of these receptors in breast cancer than in normal breast tissue, we hadn't got much further than that," Riggins said in a GUMC news release.

The findings could also help explain why invasive lobular carcinoma -- the subtype of

breast cancer examined in this study -- may not respond as well to tamoxifen as other breast cancer subtypes.

Abstract at

<http://cancerres.aacrjournals.org/cgi/content/abstract/68/21/8908?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=&fulltext=tamoxifen&searchid=1&FIRSTINDEX=0&volume=68&issue=21&resourcetype=HWCIT>

20. Antidepressants May Wipe Out Benefit of Tamoxifen

Cancer Decisions Newsletter – by Ralph Moss, PhD.

<http://www.cancerdecisions.com/content/view/212/2/lang,english/>

(June 14, 2009) It is well known that many women taking the anti-hormonal drug tamoxifen also experience hot flashes. Because of their breast cancer history, however, they cannot not take any form of hormonal therapy to control these troublesome symptoms. Since antidepressants may help control hot flashes, many of the half million women or so women who are taking tamoxifen also take antidepressant drugs.

There has been considerable concern, however, since researchers found that many antidepressants also lower the amount of tamoxifen in the bloodstream. Now, a study presented at the American Society for Clinical Oncology (ASCO) annual meeting showed that patients increase the risk of having their disease recur if they also take the popular drugs Prozac, Paxil and Zoloft while taking tamoxifen. Some attendees called the finding "worrisome."

The new study found that antidepressant drugs that inhibit the CYP2D6 pathway, virtually wiped out the benefit of tamoxifen. The good news is that not all antidepressants had these effects. There are other alternatives that patients could consider, such as Celexa, Lexapro or Luvox along with tamoxifen....

21. Breast Cancer Drug Tamoxifen Appears To Raise Risk of Developing New Type of Tumor, Study Finds

Medical News Today

<http://www.medicalnewstoday.com/articles/162024.php>

(August 27, 2009) Breast cancer patients taking a long-term course of the estrogen-blocker tamoxifen, which has been used widely to prevent recurrences of hormone-sensitive breast cancer, might have four times the risk of developing "an uncommon but aggressive" new tumor that is not estrogen-sensitive, according to a new study published Tuesday in the journal *Cancer Research*, the *New York Times* reports. According to the *Times*, the study by Christopher Li -- an associate member of the Fred Hutchinson Cancer Research Center in Seattle -- and colleagues was an observational study and not a randomized, controlled clinical trial.

For the study, the researchers analyzed medical histories of more than 1,000 women who were diagnosed with estrogen-sensitive breast cancer between ages 40 and 79. Most of

the women who took hormonal therapy used tamoxifen. The researchers compared data on 358 women who developed a new tumor in the second breast with 674 women who did not. After comparing data, the researchers found that the women who took tamoxifen for five years or more were 60% less likely than those who had not to develop a new estrogen-sensitive tumor in the second breast and 40% less likely to develop a new tumor of any kind in the second breast, according to the Times. In addition, women in this group "were possibly four times as likely as nonusers to develop a new tumor that was not estrogen-sensitive," the Times reports. Such tumors often are uncommon and more difficult to treat. One in seven of the women who developed tumors in the second breast had this particular type of tumor, the study found...

22. New York Times Examines FDA Market Approval of Medical Devices

Kaiser Daily Health Policy Report

http://www.kaisernetwork.org/daily_reports/rep_hpolicy_recent_rep.cfm?dr_cat=3&show=yes&dr_DateTime=27-Oct-08#55210

(Oct. 27, 2008) The New York Times on Monday -- as part of an ongoing series titled "The Evidence Gap" -- examined how FDA each year allows "thousands" of medical devices onto the market with "only cursory review and with no clear evidence that they help patients." According to the Times, physicians "are free to use those products as they see fit, without telling patients that the devices are not proved." CMS "frequently" provides higher Medicare payments to physicians who use such products "as a way to compensate them for the extra time and expense of adopting new procedures," which can lead to the devices becoming "widely adopted," the Times reports.

Critics of FDA's process for reviewing medical technology say that the agency "is often too lax" and that medical devices should be held to the same review standards as prescription drugs, which typically are "studied in hundreds or even thousands of patients before the FDA will approve it as safe and effective," according to the Times. Diane Robertson -- an executive with the ECRI Institute, which evaluates new devices for hospitals and insurers -- said, "Nobody is looking to see whether [the devices] help patients," adding, "We're never going to wisely allocate resources in health care unless we start to focus on what's best for patients." [...]

The Times profiled the device MammoSite, a new breast cancer treatment system marketed by Massachusetts-based Hologic, that received FDA market approval in 2002. The system was approved following a clinical study involving 25 patients, which failed to show the effectiveness of MammoSite in treating breast cancer. Many cancer specialists say that six years later, "there is still no conclusive proof that it works as well as conventional radiation," according to the Times. FDA says it did require a label warning to inform consumers that the device is not proven to be a substitute for standard radiation (Abelson, New York Times, 10/27).

23. Radiation Treatment for Breast Cancer Raises Risk of Cancer in the Other Breast

NaturalNews - by David Gutierrez

<http://www.naturalnews.com/026257.html>

(May 13, 2009) Young women who receive radiation treatment after breast cancer surgery are significantly more likely to later develop cancer in the other breast than women who did not undergo such radiation. The findings come from a study, published online in the Journal of Clinical Oncology, on more than 7,000 women who were treated for breast cancer in Netherlands between the years of 1970 and 1986. All study participants were diagnosed with breast cancer before the age of 71.

Among study participants in general, the risk of developing cancer in the opposite breast (contralateral breast cancer) after treatment in the first breast was three to four times higher than the rate for new cases of breast cancer. This risk only went up with a number of other risk factors, including family predisposition or treatment with radiation or chemotherapy.

Researchers from the Erasmus Medical Center Daniel den Hoed Cancer Center in Rotterdam examined the cancer risk in women based on whether they were treated with radiation after a lumpectomy (partial breast removal) or mastectomy (complete breast removal). They found that women under the age of 45 who received radiation treatment after a lumpectomy were 1.5 times more likely to develop contralateral cancer than women who received post-mastectomy radiation treatment....

24. Ginger Found to Ease Nausea of Cancer Treatment

New York Times – by Andrew Pollack

http://www.nytimes.com/2009/05/15/health/15cancer.html?_r=1&emc=eta1

(May 15, 2009) Grandma was right when she recommended ginger for an upset stomach — at least for cancer patients. A randomized clinical trial has confirmed what many people suspect — that ginger can decrease nausea caused by chemotherapy. The effect goes beyond that provided by standard anti-vomiting drugs. The results will be presented at the annual meeting of the American Society of Clinical Oncology, which begins May 29 in Orlando, Fla. Abstracts of most of the studies to be presented at the conference were made public Thursday.

The trial, financed by the National Cancer Institute, involved 644 patients, mostly women with breast cancer, who were undergoing chemotherapy at 23 oncology practices in the United States.

All patients took a standard anti-vomiting drug on each day of chemotherapy. They also took specially made capsules containing either extracts of ginger root or a placebo for six days, starting three days before each round of chemotherapy. They then rated the severity of their nausea four times a day. Those taking the ginger had a reduction of about 45 percent in severity compared with a previous round of chemotherapy in which they did not take the ginger. Those on the placebo had almost no change, said Julie L. Ryan of the University of Rochester, the lead author of the study.

25. Homeopathy Appears Compatible with Cancer Therapy

Reuters Health - by Amy Norton

<http://www.reuters.com/article/healthNews/idUSTRE53D4EK20090414>

(April 14, 2009) There is limited evidence that homeopathic remedies ease the side effects of cancer treatments, but they at least seem to cause no serious adverse effects or drug interactions, according to a report published Tuesday. In a review of eight clinical trials that included 664 cancer patients, researchers found preliminary evidence that certain homeopathic remedies may lessen some cancer therapy side effects. However, lead researcher Dr. Sosie Kassab, of the Royal London Homeopathic Hospital in the UK, and co-investigators stress that these trials need to be replicated before any recommendations can be made.

One study found that topical calendula -- an extract from marigolds -- may be helpful for skin inflammation from radiation therapy for breast cancer. Another suggested that a mouthwash called Traumeel S -- a mix of various plant extracts and minerals -- can help ease treatment-related inflammation in the mouth.

None of the other trials showed any benefits from homeopathic products, the researchers report in the Cochrane Library, a publication of an international organization called the Cochrane Collaboration, which evaluates medical research....

26. Vitamin D Good for Breast Cancer Patients

Supplements help fight treatment-related bone loss, researchers say

HealthDay -- by Robert Preidt

http://www.nlm.nih.gov/medlineplus/news/fullstory_90425.html

(Oct. 9, 2009) Many breast cancer patients have low levels of vitamin D, which could lead to weaker bones and increased risk of fractures, say U.S. researchers who recommend high doses of vitamin D for them. "Vitamin D is essential to maintaining bone health, and women with breast cancer have accelerated bone loss due to the nature of hormone therapy and chemotherapy. It's important for women and their doctors to work together to boost their vitamin D intake," Luke Peppone, a research assistant professor of radiation oncology at the University of Rochester Medical Center, said in a news release from the medical center.

Peppone and colleagues studied 166 women undergoing treatment for breast cancer and found that nearly 70 percent had low levels of vitamin D in their blood. The average level among the women was 27 nanograms of vitamin D per milliliter of blood. Levels of 32 nanograms per milliliter are adequate, according to the U.S. Institute of Medicine.

The lowest levels of vitamin D were in non-whites and those with late-stage breast cancer. The researchers found that weekly supplementation with high doses of vitamin D (50,000 IU or more) boosted the levels of the vitamin among all the women.

The study was to be presented Oct. 8 at the American Society of Clinical Oncology's

breast cancer symposium in San Francisco....

RECOVERY

27. Breast Cancer Follow-Up: Extending the Focus Beyond Survival

Care of breast cancer patients should be comprehensive and multidisciplinary

Journal Watch/Women's Health – by Shannon MacLaughlan, MD, and Don S. Dizon, MD, FACP

<http://womens-health.jwatch.org/cgi/content/full/2009/226/1>

(Feb. 26, 2009) Breast cancer is the most common cancer among women, and advances in screening, early diagnosis, and treatment have yielded a 5-year survival rate of 98% in women with localized breast cancer. The 10-year survival rate for patients with all stages combined is 80%, reflecting the ongoing rise in the cancer survivor population.

Consequently, ensuring that care of breast cancer patients continues beyond treatment of their disease is especially important.

Recently, investigators evaluated the effects of psychological intervention (stress reduction, smoking cessation, mood improvement, and attention to health behaviors such as diet and exercise) on survival in women with histories of breast cancer.¹ After a median follow-up of 11 years, women who completed the psychological intervention had approximately half the risk for recurrent breast cancer as did women who received only psychological assessment. In addition, the intervention appeared to confer a survival advantage, with fewer women in the intervention group dying of breast cancer (hazard ratio, 0.44) or of any other cause (HR, 0.51) during follow-up. Provocative data such as these emphasize the need for clinicians and healthcare insurance payers to broaden their scope beyond surveillance for relapse to include attention to issues of quality of life (QOL) and survivorship that are faced by long-term cancer survivors.....

28. Marital Distress May Affect Breast Cancer Recovery

Outcome appears to be related to quality of marriage relationship

HealthDay -by Robert Preidt

<http://www.washingtonpost.com/wp-dyn/content/article/2008/12/18/AR2008121802097.html>

(Dec. 18, 2008) Marriage problems are associated with poorer outcomes for women with breast cancer, a new U.S. study finds. The researchers found that women in troubled marriages had higher levels of stress, less physical activity, slower recovery and more symptoms and signs of illness than women who reported good marriages. The research involved 100 women who were married or living with a partner at the start of the study and remained in the relationship during the five years of follow-up.

The findings were published online and will appear in a future print issue of Cancer.

The benefits for women in good marriages held true even after the researchers adjusted for the participants' depression levels, cancer stage, treatment and other factors that could

have an influence. "The quality of the marital relationship may not be the first thing women worry about when they get a cancer diagnosis. But it may have a significant impact on how they cope physically and emotionally," study co-author Hae-Chung Yang, a research associate in psychology at Ohio State University, said in a university news release. "Our results suggest that the increases in stress and other problems that come with a distressed marital relationship can have real health consequences and lead to poorer recovery from cancer." [...]

29. Spiritual Outlook Can Affect Mental Health in Breast Cancer

Negative feelings about faith linked to patients' poor emotional status, study suggests

HealthDay – by Robert Preidt

(July 17, 2009) Among breast cancer patients, a positive religious attitude is not linked to measures of well-being, but a negative religious or spiritual outlook can lead to worse emotional and mental health, a recent study suggests. The study included 198 women with early-stage breast cancer and 86 women with late-stage breast cancer, who were recruited from hospitals in western Pennsylvania. The women were interviewed at the start of the study and again eight to 12 months later.

The participants were asked whether they felt they were receiving support and guidance from God (positive religious coping) or whether they felt angry at God for letting them develop breast cancer (negative religious coping). The researchers found that patients who were disillusioned about their faith or had a negative religious or spiritual outlook were more likely to have depressive symptoms, lower life satisfaction and worse overall mental health than those with a positive religious or spiritual attitude.

"Clinicians often don't broach the subject of religious and spiritual coping with their seriously ill patients, even though most want their physicians to be aware of their beliefs," study author Dr. Randy Hebert, medical director of Forbes Hospice, part of the West Penn Allegheny Health System, said in a news release. "Our study suggests that engaging patients about their religious or spiritual beliefs may be extremely beneficial, particularly when anger and disillusionment with one's faith is present."

The study was published in a recent issue of the Journal of Palliative Medicine.

30. Art Therapy Boosts Breast Cancer Patients' Health and Well-Being

Reuters Health

(Feb. 12, 2009) Women having radiation treatment for breast cancer experienced lasting improvements in mental and physical health and quality of life after participating in five sessions of art therapy, Swedish researchers report. The findings "strongly support art therapy as a powerful tool in rehabilitation of patients with breast cancer and, presumably, also in the care of patients with other types of cancer," Dr. Jack Lindh of Umea University, Umea, Sweden, and colleagues conclude in the European Journal of Cancer Care.

Women face major stresses after a diagnosis of breast cancer and art therapy could offer a way for women to express and "process" their emotions, the researchers say, thus improving their quality of life.

To investigate, they randomly assigned 41 breast cancer patients receiving radiation treatment to five once-a-week, hour-long sessions of art therapy or to a control group who didn't receive art therapy. Study participants completed surveys addressing their quality of life and self-image before beginning radiation, two months after radiation treatment began, and six months after the beginning of treatment....By six months, the researchers found, women who had participated in art therapy showed significant improvements in their overall quality of life, general health, physical health, and psychological health, while the control group only showed improvements in psychological health. The art therapy group also showed specific improvements in their body image, perspectives on the future, and radiation therapy side effects.

Reference: European Journal of Cancer Care, January 2009.

TESTING / SCREENING

31. More Mammograms May Mean More 'Harmless' Cancers

Experts stress, though, that screenings remain vital

HealthDay

<http://www.forbes.com/feeds/hscout/2009/07/09/hscout628904.html>

(July 10, 2009) One of every three breast cancers detected by a screening mammogram is unlikely to ever cause a problem, a new study predicts. The report of a so-called overdiagnosis rate of 35 percent came from an examination of breast cancer screening programs in five countries conducted by Danish researchers and published online Thursday in BMJ.

The finding echoes those of a study published late last year that concluded that some breast cancers may naturally disappear without treatment. That study found that more cases of breast cancer were diagnosed after a regular screening program was put in place than had been diagnosed before. The finding led specialists to suspect that some of the diagnosed tumors would have spontaneously regressed had they not been detected and treated as the result of more rigorous mammography guidelines.

However, experts say such findings do not diminish the importance of mammograms. "We do know that breast cancer survival has increased, and we do know that screening increases survival," said Dr. Richard J. Bleicher, a breast cancer surgeon with Fox Chase Cancer Center in Philadelphia. "Some of that screening has let us detect earlier cancers." But, he added, "in a clinical context, we can't distinguish between lethal and harmless cancers." Overdiagnosis, described as the detection of cancers that would not cause any problems during a person's lifetime, has been reported with other cancers as well, notably prostate cancer....

Reference: BMJ, online, July 9, 2009.

32. Mammograms May Harm Young BRCA Mutation Carriers

Reuters Health

<http://www.reuters.com/article/healthNews/idUSTRE50Q7RA20090128?feedType=RSS&feedName=healthNews>

(Jan. 27, 2009) Due to the risk of radiation-induced breast cancer, mammographic screening in young BRCA mutation carriers may have a net harmful effect, according to a report in the Journal of the National Cancer Institute. Mammographic screening is recommended to begin as early as 25 to 30 years of age in carriers of the BRCA1 or BRCA2 mutation, which increase the risk of developing breast cancer. However, it's not clear what reduction in breast cancer mortality is needed with screening to offset the risks of radiation exposure, Dr. Amy Berrington de Gonzalez, from Johns Hopkins Bloomberg School of Public Health, Baltimore, and colleagues explain.

Using data from 22 pedigree studies of 8139 subjects, the research team estimates that for BRCA1 mutation carriers, annual mammographic screening starting at 25 to 29 years of age would confer a lifetime risk of radiation-induced breast cancer mortality of 26 per 10,000 women. With annual screening starting from 30 to 34 years and from 35 to 39 years, the risk fell to 20 and 13 per 10,000, respectively. To overcome these risks, beginning annual screening in the three age groups: 25 to 29 years; 30 to 34 years; and 35 to 39 years old, would need to reduce breast cancer mortality by 51 percent, 12 percent, and 4 percent, respectively, the investigators calculate. "Estimates were similar for BRCA2 mutation carriers," they report.

Given that mammographic screening is thought to reduce breast cancer mortality by no more than 25 percent in young women, the authors believe that the harms of annual screening would outweigh the benefits in women between 25 and 29 years of age and probably also in those from 30 to 34 years. Only in older women is a net benefit likely to be apparent. Without actual data, these estimates can be used to guide the decision-making process of weighing the benefits of early mammographic screening against the radiation risks in young women with a BRCA mutation, the authors conclude.

Reference: Journal of the National Cancer Institute, February 4, 2009.

33. Progress Made in Predicting Breast Cancer Risk

Breast density, tumor characteristics help fine-tune treatment, study says
HealthDay

(Dec. 12, 2008) Researchers are making progress in predicting breast cancer risk, recurrence risk and response to cancer treatment by looking at such factors as breast density and tumor size, a panel of experts report. The scientists presented their data during a teleconference Friday at the annual San Antonio Breast Cancer Symposium in Texas.

Patients with breast cancer tumors known as HER2-positive, even those a centimeter or less in diameter, have a substantially increased risk for relapse, and additional treatment after surgery should be considered, said Dr. Ana Gonzalez-Angulo, a researcher at the University of Texas M.D. Anderson Cancer Center.

Currently, guidelines call for no further treatment after surgery for these small cancers, but Gonzalez-Angulo said her findings suggest that thinking be reconsidered. She evaluated 965 patients from M.D. Anderson Cancer Center, and validated the results with 350 European patients. All had small tumors, one centimeter in diameter or smaller, and 10 percent had HER2-positive tumors. HER2-positive breast cancer tests positive for a protein called human epidermal growth factor receptor 2, and these cancers tend to be more aggressive.

"The patients who had HER2-positive disease were the ones with the worst prognosis," she said. The five-year recurrence was 23 percent for those with HER-2 positive disease, compared to about 6 percent for those with HER-2 negative disease. "We should start thinking about adjuvant therapy, as well as clinical trials," she said. "Twenty-three percent [recurrence] is very high." [...]

34. Researchers Identify Biological Markers that May Indicate Poor Breast Cancer Prognosis

National Cancer Institute

<http://www.nih.gov/news/health/may2009/nci-26.htm>

(May 26, 2009) A team of researchers has found an association between breast cancer survival and two proteins that, when present in the blood in high levels, are indicators of inflammation. Using data from the Health, Eating, Activity and Lifestyle (HEAL) study sponsored by the National Cancer Institute, part of the National Institutes of Health, the researchers found that breast cancer patients with elevated levels of C-reactive protein (CRP) and serum amyloid A (SAA) were approximately two to three times more likely to die sooner or have their cancer return than those patients who had lower levels of these proteins, regardless of the patient's age, tumor stage, race, body mass index, or history of previous cardiovascular issues. The results of this study were published online, May 26, 2009, in the Journal of Clinical Oncology.

Inflammation is an immune response. It is part of the body's natural defense against harmful elements, such as pathogens, damaged cells, or other irritants, and helps facilitate the healing process. Inflammation can be classified as either acute or chronic. Acute inflammation is the short-term, beneficial response to harmful stimuli. Chronic inflammation is a disease in which the inflammatory state persists and may result in tissue damage.....Chronic inflammation is believed to contribute to the development and spread of breast cancer, and breast cancer survivors with chronic inflammation may be at a higher risk of recurrence. Elevated CRP is also linked to increased risk of heart disease.

"This HEAL study of inflammation and breast cancer survival contributes uniquely to

this emerging research in that it is the largest study to date to examine this association," said Rachel Ballard-Barbash, M.D., M.P.H., a co-author of the study and principal investigator of the HEAL study at NCI, in the Division of Cancer Control and Population Sciences. "Because of the detailed data on diet, physical activity and weight in the HEAL study, we were able to examine the extent to which these health behaviors altered this association." [...]

To learn more about the Health, Eating, Activity, and Lifestyle (HEAL) study, please visit: <http://appliedresearch.cancer.gov/surveys/heal/>

RESEARCH PRIORITIES

35. New York Times Criticizes War on Cancer

Cancer Decisions – by Ralph Moss, PhD.

<http://www.cancerdecisions.com/050309.html>

(May 3, 2009) There was a time when the New York Times could be counted on to invariably promote the US government's "war on cancer." In previous decades it touted every hopeful sign of progress and often conveyed the feeling that a cure was around the next corner....[Reporter Gina Kolata's] front-page article on April 24, 2009 marked a turning point, as she described for Times readers a litany of failures in the war on cancer over the past few decades. The overall death rate for cancer, she revealed, when adjusted for the size and age of the population, dropped only 5 percent from 1950 to 2005. "In contrast," she wrote, "the death rate for heart disease dropped 64 percent in that time, and for flu and pneumonia, it fell 58 percent."

"Still," she wrote, "the perception, fed by the medical profession and its marketers, and by popular sentiment, is that cancer can almost always be prevented. If that fails, it can usually be treated, even beaten." I too wrote about this gap between perception and reality in my first book, *The Cancer Industry*, which came out in 1980. At that time, I was frustrated by the uninformed attitudes towards the war on cancer that I found at America's "newspaper of record." I am certainly encouraged that, 30 years later, they are finally waking up to the fact that things are not going well in the war on cancer.

Kolata focuses on the treatment of metastatic cancers. "With breast cancer, for example, only 20 percent with metastatic disease — cancer that has spread outside the breast, like to bones, brain, lungs or liver — live five years or more, barely changed since the war on cancer began" The situations with colon, lung and prostate cancer are no better, said Kolata: "With colorectal cancer, only 10 percent with metastatic disease survive five years. That number, too, has hardly changed over the past four decades. The number has long been about 30 percent for metastatic prostate cancer, and in the single digits for lung cancer." These are the grim facts, despite \$105 billion spent by NCI on the war on cancer since its inception in December 1971.....

36. Broader Environment Neglected In Cancer Research

NY Times article is another lost chance to explore environmental exposures that

cause cancer at key development periods

Environmental Health News

<http://www.environmentalhealthnews.org/ehs/blog/broader-environment-neglected-in-cancer-cure>

(May 2, 2009) An April 24th The New York Times article recounts the achievements of the War on Cancer, as proclaimed by President Nixon in 1971. The results are disappointing thus far. Gina Kolata correctly points out the many times the public has been promised that, by a certain year, scientists will deliver a cure for cancer. Those dates passed without any fanfare, and more importantly, without accountability for the broken promises.....What is surprising is that Ms Kolata did not mention the other stunning fact: the steady increase in newly diagnosed cancers. For instance, the incidence of breast cancer increased 18 percent from 1975-2003; prostate cancer incidence went up 85 percent in the same period. These numbers make the 5 percent decrease in death rate for cancer look even worse.

Interestingly, Ms Kolata mentions cancer prevention. This is a welcome sign. She writes that there is "perception" that cancer is curable and preventable, especially if "you eat right and exercise". However, she associates cancer prevention with personal lifestyles. She never delves into the increasingly mounting scientific evidence that links environmental exposures to cancer. Compelling epidemiological and experimental data show that exposure during critical fetal and puberty development to some environmental toxicants – such as chemicals that disrupt the endocrine system – correlates with the onset of cancer later in life. Think DES, the synthetic estrogen prescribed to pregnant women to reduce the risk of miscarriages. Its consequences on the daughter's health: vaginal cancer, increased risk of breast cancer, etc.

EDUCATIONAL RESOURCES

37. SHARE Announces "Novela" Project

SHARE (Self-Help for Women with Breast or Ovarian Cancer)

http://www.sharecancersupport.org/services/public_education_campaigns/spanish-language_novela/?lang=en-us&agent=generic&action=view&mode=&q=&date=&

(Dec. 2008) SHARE will create a unique comic-book-style publication called a "Novela," to raise awareness about breast cancer within Latina communities. The Novela will be written in Spanish and will include characters representing various different cultural backgrounds, such as Dominican, Mexican, and Puerto Rican. Rosa Mota will coordinate the project under the direction of Ivis Sampayo, director of LatinaSHARE. This three-year project is being funded by National Philanthropic Trust.