

1996-2006

The First 10 Years

A DECADE OF PROMISES KEPT

GUIDING PRINCIPLES

Komen's guiding principles were born from a simple promise made between two sisters.



We believe in the power of the individual, recognizing the extreme value of one and the dynamic force of many.



We honor voluntarism and foster the spirit to serve by the lives that we touch.



We nurture an environment where people are valued and treated with dignity, respect and fairness.



We are committed to being a positive agent of change, demonstrating compassion and integrity in all that we do.



We believe that distinguished financial performance is a must, not as an end in itself, but as a means to accomplish our broader mission.



1996 A DECADE OF PROMISES KEPT 2006

Mission Statement

The mission of the Susan G. Komen Breast Cancer Foundation is to eradicate breast cancer as a life-threatening disease by advancing research, education, screening and treatment.

The Foundation

The Susan G. Komen Breast Cancer Foundation was established in 1982 by Nancy Brinker to honor the memory of her sister, Susan G. Komen, who died from breast cancer at the age of 36. Today, the Komen Foundation is a global leader in the fight against breast cancer through its support of innovative research, meritorious awards, community-based outreach programs and its advancement of the life-saving message of early detection to millions of women and men. The Foundation is headquartered in Dallas, Texas.

Komen North Jersey Affiliate

The Susan G. Komen Breast Cancer Foundation, North Jersey Affiliate (located in Summit, NJ) was founded in 1997 on a promise "to make a difference" to a 10-year-old girl who lost her mother to breast cancer. Affiliate Board of Trustees, Medical Advisory Council, staff and over 700 volunteers fulfill that promise every day by delivering the *life-saving message of early detection*. Through fundraising events like the Pink Tie Ball®, the Affiliate supports community-based breast health education, and breast cancer screening and treatment programs focusing on the medically underserved and uninsured. Since inception, the North Jersey Affiliate has granted nearly \$7.4 million to community-based agencies in its nine-county northern New Jersey service area (Bergen, Essex, Hudson, Morris, Passaic, Somerset, Sussex, Union and Warren counties). In addition, the Affiliate has contributed \$3.2 million to the Susan G. Komen Breast Cancer Foundation Award and Research Grant Program.

Komen Public Policy - Komen Champions for the Cure®

Working with elected and government officials to further its mission is a key public policy challenge for the Komen Foundation and the North Jersey Affiliate. Through its public policy initiative, Komen Champions for the Cure™ (www.ActNowEndBreastCancer.org), the Foundation has become a strong voice on both the national and local levels to significantly impact breast cancer issues.

1996 A DECADE OF PROMISES KEPT 2006

Board of Trustees

Lisa Ryan Burke, President • John Bertolini, Treasurer • Maureen Burke, Assistant Treasurer • Katherin Nukk-Freeman, Esq., Parliamentarian
C. Ron Cheeley • Erica D. Ferry • Mary Ellen Gowin • Christopher Innes • Barbara Kennedy • Elizabeth Kennelly
Kenneth C. McKenna • Gil Medina • Daria Placitella • Judith A. Reinsdorf • Virginia A. Valenze • Joseph Weldon

Medical Advisory Council

Kenneth R. Adler, M.D.
Carol G. Simon Cancer Center
Morristown Memorial Hospital

Deborah Axelrod, M.D., F.A.C.S.
Clinical Breast Services and Surgery
New York University Medical Center

M. Michele Blackwood, M.D., F.A.C.S.
Connie Dwyer Breast Center
Saint Michael's Medical Center

Harold Bruck, M.D., F.A.C.S.
The Breast Health Center
Valley Hospital

Wendy C. Budin, Ph.D, R.N., C.
Seton Hall University
College of Nursing

Deborah M. Capko, M.D., F.A.C.S.
Hackensack University Medical Center
Valley Hospital

Alice Cohen, M.D.
Newark Beth Israel Medical Center

Francisco G. Colón, M.D., F.A.C.S.
The Peer Group for Plastic Surgery

Kevin R. Fox, M.D.
Rena Rowan Breast Center
University of Pennsylvania Cancer Center

Michael A. Gallo, Ph.D.
NIEHS Center for Excellence
UMDNJ-RWJMS

Jordan M. Garrison, M.D., F.A.C.S.
NJ Cancer Education and
Early Detection Program
Saint Michael's Medical Center

William N. Hait, M.D., Ph.D.
The Cancer Institute of New Jersey

T. Patrick Hill, Ph.D.
Applied Ethics Enterprises

Jan A. Huston, M.D., F.A.C.S.
Summit Breast Care

Eileen Klein, M.D.
Summit Medical Group

Paula Klein, M.D.
Saint Vincent's Comprehensive
Breast Center

Richard A. Michaelson, M.D.
Cancer Center of Saint Barnabas

Bert M. Peterson, Jr. M. D., F.A.C.S.
Betty Torricelli Institute for Breast Care
Hackensack University Medical Center

Barbara A. Ryan, Esq.
Aaronson, Rappaport, Feinstein
and Deutsch LLP

Miguel Sanchez, M.D.
Cytodiagnostic and Breast Care Center
Englewood Hospital

Elissa J. Santoro, M.D., F.A.C.S.
The Breast Care and Treatment Center
Saint Barnabas Medical Center

Steven J. Stanzione, M.D.
Medical Diagnostic Associates

Staff

Deborah O. Belfatto
Executive Director and Co-Founder

Annette Fasciano
Managing Director

Tawana Baker
Database Manager

Kathleen Hubert
Grants Manager and Co-Founder

Beverly R. Cohen
Communications and
Co-Chair, Advocacy

Janet Jannelli
Events Assistant

Angela Armstrong
Events Manager and
Volunteer Coordinator

Nancy Dango
Office Administrative Assistant

Perla Haltner
Webmaster and
Auction Systems

John Oliva
Finance Manager

Mary H. Hess
Grants Coordinator

Barbara K. Waters
Education and Outreach
and Co-Chair, Advocacy

1996 A DECADE OF PROMISES KEPT 2006

The North Jersey Affiliate is dedicated to carrying out the mission of the Komen Foundation and to providing equal access to quality breast care for all women and men, regardless of socio-economic status. Affiliate coordinators of its core functions - fundraising, grantmaking and education - work in partnership with advocacy and communications to ensure that our mission programs have successful and impactful outcomes within our service region.

Significant accomplishments have been achieved by the Affiliate over the past ten years, but so much more needs to be done. It is still a fact that every three minutes a woman is diagnosed with breast cancer, and every thirteen minutes a woman loses her battle with the disease. This year, we highlight and commemorate a decade of promises kept, and we look forward to the future when "we truly have something to celebrate: the end of breast cancer as a life-threatening disease."

KOMEN NORTH JERSEY AFFILIATE'S GROWTH AND DEVELOPMENT

FUNDRAISING

- **Over \$10 million raised in ten years**
 - \$7.4 million to community-based agencies providing breast health education and outreach, and breast cancer screening and treatment programs for the medically underserved and uninsured.
 - \$3.2 million contributed to the National Komen Foundation Award and Research Grant Program

Corporate and Individual Contributions

Signature Events

- Pink Tie Ball®
- May Day Tea
- Style for the Cure®
- Celebration of Life
- Volunteer Recognition Tea

Participation in National events

- BMW Ultimate Drive®
- Lee National Denim Day®
- Rally for A Cure®

Third Party Events

GRANTMAKING

- **Grant Committee Established in 1997; adheres to Komen National guidelines**

National Research

- \$3.2 million contributed to the Susan G. Komen Breast Cancer Foundation Award and Research Grant Program

New Jersey Research

- \$250,000 awarded to Thresia Thomas, Ph.D., Research Scientist and Associate Professor, UMDNJ and Robert Wood Johnson Medical School Project: Development of Polyamine Analogs in Combination with a Pure Antiestrogen for Breast Cancer Therapy
- \$30,000 to Princeton University Project: Maintenance of Genome Stability and Telomere Length by Pfh1p DNA Helicase in *Schizosaccharomyces Pombe*
- \$17,000 to Hackensack University Medical Center Project: Development of High-Risk Database

Clinical Trials Development

- Targeted outreach and education initiatives
- \$65,000 awarded to Hackensack University Medical Center for protocol: Decisions and Outcomes of BRCA1/2 Testing for Breast Cancer Patients. SAGE, for Surgery after Genetic Education.

- **Community-Based Programs**— \$7.4 million breast health education and breast cancer screening and treatment programs for medically underserved and uninsured

Education and Outreach Grants

- Culturally-sensitive and language appropriate outreach to multi-cultural, at-risk populations; young women and teens
- Model Physician Educator Program
- State Resource Directory for approved Imaging Centers

1996 A DECADE OF PROMISES KEPT 2006

- *Talking to Your Children about Breast Cancer* video (The Englewood Hospital and Medical Center)
- Patient Navigator Programs
- Caucus Educational Television Programming 3- part series (viewership: 15 million):
(2003) *Breast Cancer: Access to Quality Care*
(2004) *A Time for Action: Personal and Public Advocacy*
(2005) *Healthcare Challenges and the Komen Mission*

Screening Grants

- New Jersey Cancer Education and Early Detection Program (NJCEED)—education, screening, and case management services for the medically underserved and uninsured
- Mobile mammography screenings
- Community-based agency screenings
- Computer - Aided Detection Program (CAD)

Treatment “Gap” Grants

- Patient Treatment Assistance Grant (2004)
- Pathology services
- Lymphedema services and supplies
- Anesthesia

- Medications
 - Pain
 - Anti-nausea
 - Aromatase Inhibitors

“Full Circle of Care” Services Grants

- Image enhancement services
 - wigs and prosthesis/bras
- Psycho-social programs
 - support groups
- Access to care services
 - transportation and child care

EDUCATION

Community Needs Assessment

- provides guidelines for grantmaking and educational activities 1998, 2000, 2002, 2004, 2006

Community Support Resources

- Medical Advisory Council
- Community Advisory Council (NJCEED site directors)
- Comprehensive Resource Database for nine counties

Education Symposia

- *Exposure – Environmental Links to Breast Cancer* (2000)
- *Empowering Through Knowledge Symposium* (2004, 2005, 2006; partnership with St. Barnabas Cancer Center)
- *Stacey Goldstein Symposium on Breast Cancer* (2004; co-sponsor with Living Beyond Breast Cancer)

Special Education/Awareness Programs

- Teens for the Cure® Multi-Media Presentation (award-winning)
- Corporate Lunch and Learn Education Program
- Corporate Health and Wealth Program
- Tie a Ribbon Breast Cancer Awareness Campaign
- Journeys of Courage Survivor Photo Essay Exhibit
- Speakers Bureau
- Young Women and Breast Cancer National initiative
- *Men Do Get Breast Cancer* National initiative
- Candlelight Walk for the Cure

Educational Materials

- North Jersey Affiliate Education Brochure
- Newsletters (includes ongoing medical series)
- Teens for the Cure® Brochure
- Inflammatory Breast Cancer Brochure
- Journeys of Courage Brochure

Education Collaborations and Venues

- Affiliate Signature events
- National Programs
- Community third-party events
- Organizations and community-based agencies with similar missions

1996 A DECADE OF PROMISES KEPT 2006

ADVOCACY

- 2001: Independent Advocacy initiative: lobbied NJ Senate and Assembly for passage of Breast and Cervical Cancer Treatment Act of 2000 in the State of NJ, providing breast cancer treatment for uninsured women. Signed into law in 2001
- 2002: Affiliate chosen by National as one of ten founding members of the public policy pilot project, Komen Champions for the Cure®
- 2002-2006: Since 2002, annual visits to New Jersey Congressional Delegation on Capitol Hill to encourage support and funding for breast cancer related issues and National Breast and Cervical Cancer Early Detection Program (NBCCEDP) for underserved and uninsured women.
- 2002: Tie a Ribbon Awareness campaign kicked-off at State Capitol in Trenton with Governor of NJ and Commissioner of Health
- 2001-2004: Caucus Educational Television Programming – *A Time for Action: Personal and Public Advocacy*. Program video tape distributed to all members of NJ Senate and Assembly. Also distributed to NJ Congressional Delegation
- 2005: First Town Hall Meeting with Congressman William Pascrell, Senator Robert Menendez and panel of health experts – *Healthcare Challenges and the Komen Mission*
- 2005: NJA Executive Director current member of Women's Leadership Council of Cancer Institute of New Jersey (current)
- 2003-2008: NJA Education Coordinator and Co-Chair of Advocacy, current Chair of Governor's Breast Cancer Workgroup and member of State NJ Cancer Control Prevention Task Force
- 2006-2009: Komen National African American and Asian Pacific Advisory Councils — appointments awarded to two members of NJA Grantee community

COMMUNICATIONS

- Komen NJA recognized as resource for breast cancer information
- Media Coverage

- Feature and news articles in over 100 daily and non-daily newspapers: *significant quotes from NJA Staff*

TV News segments

| | |
|-------------------|------|
| CBS-TV (national) | WB11 |
| WABC-TV | NJN |
| FOX | |

Radio interviews

| | |
|-----|------|
| WOR | WGHT |
|-----|------|

Articles in national and New Jersey magazines

| | |
|---------------------------|------------------------------------|
| <i>Shape Magazine</i> | <i>M.A.R. Magazine</i> |
| <i>Town & Country</i> | <i>Bergen County, the Magazine</i> |
| <i>New Jersey Monthly</i> | <i>Morris Health & Life</i> |
| <i>New Jersey Life</i> | <i>NJ Savvy Living</i> |

Public Service Announcements (PSAs)

- 2003 Early Detection PSA; 2004 Komen Champions for the Cure® PSA (developed with Caucus Educational TV three-part breast health series) Aired prime-time:

| | |
|-------------|-----------------------|
| CN8 | BET |
| Cablevision | Lifetime |
| CNN | The Weather Channel |
| Fox Family | The Discovery Channel |

- Style for the Cure®
WPHL
- TV Asia (national television network)
— Breast Health Education Program for Asian Community

The Affiliate has made significant accomplishments over the past ten years, but much more needs to be done. It is still a fact that every three minutes a woman is diagnosed with breast cancer, and every thirteen minutes a woman loses her battle with the disease. During 2006, we highlight and commemorate a decade of promises kept, and, we look forward to the future when **“we truly have something to celebrate: the end of breast cancer as a life-threatening disease.”**

1996 ASK THE BREAST DOC 2006



In response to numerous breast health queries, the Affiliate's Education Department and Medical Advisory Council instituted its "Ask the Breast Doc" series in 2003. The series will continue as the Affiliate enters its second decade of progress.

★ *Deborah Axelrod, M. D., F.A.C.S., Associate Professor of Surgery, Director of Clinical Breast Services and Breast Surgery, Director of Community Education at New York University Cancer Center. Dr. Axelrod presently serves as a member of the North Jersey Affiliate Medical Advisory Council.*

Also contributing to this series:

🎀 *Dr. Richard Michaelson, Chief Medical Officer for Oncology, Cancer Center of Saint Barnabas Affiliate Medical Advisory Council*

🎀 *Dr. Paula Klein, Attending Physician Medical Oncologist Section, Saint Vincent's Comprehensive Breast Center; Affiliate Medical Advisory Council*

🎀 *Dr. David Fishman, Director National Ovarian Cancer Early Detection Program; Director, Gynecologic Oncology and Cancer Prevention and Early Detection, NYU Medical Center*

🎀 *Dr. Julia Smith, Director Breast Cancer Screening Program, NYU Medical Center*

Q: I am 59 years old and was diagnosed with breast cancer in 1999. My nodes were negative, but I did need chemotherapy. I have been on tamoxifen for almost five years, the five year mark will be sometime in May, 2005. What happens once the tamoxifen is finished?

A: Women who are post-menopausal and had five years of tamoxifen are now being offered an **aromatase inhibitor** (AI). There are several different kinds of AIs out there, but a large study showed that one AI in particular, Femara (Letrozole), when used within three months after the completion of five years of tamoxifen, had a beneficial effect on women's survival from breast cancer; that is, 93% of women who took Femara were alive and healthy after a diagnosis of breast cancer at four years vs. 87% of women who took a placebo. These results were statistically significant in women who had both node-negative and node-positive disease.

The aromatase inhibitors will only work if you are finished with all menstrual periods (post-menopausal) and the tumor had positive estrogen or progesterone receptor levels. AIs may cause joint aches and hot

flashes. Your doctor will probably want to get a bone density study since we are still looking at the effects of AIs on the bones. It is not clear whether to recommend an AI in women who are more than three months out of having finished taking tamoxifen for five years. One may extrapolate the excellent data we have now and recommend an AI even if the course of tamoxifen ended more than three months ago. The magnitude of the benefit, however, will be unknown.

Q: My sister had breast cancer at the age of 38. She discovered a lump when she was showering. My sister is BRCA positive. What tests should I undergo to reduce my risk of breast cancer?

A: I believe what you are really asking is how to screen your breasts to detect early breast cancer. There are few measures which will reduce the risk of breast cancer. These are bilateral prophylactic mastectomy (which is drastic) or chemoprevention drugs (such as tamoxifen which is not without its risks).

A screening tool does not reduce your risk of developing a disease; it

reduces your risk of dying from a disease. Failure to undergo such tests may represent a missed opportunity to pick up an early cancer and reduce the progression of disease and ultimately death.

I would recommend that you go with your sister (if you live near each other) to a genetic counselor, possibly to the one she used, since your history will already be familiar to the genetic counselor. If you do have a genetic mutation in the BRCA 1 or 2 gene, chances are your physician will want to step up breast surveillance. He or she may recommend a mammogram, or possibly a sonogram, which I like as an extension of a physical examination particularly in dense breasts. And there has been some exciting news on MRI (magnetic resonance imaging). There is no exposure to radiation with MRI.

A study published in the *New England Journal of Medicine* reported on 1,900 eligible women who were considered to be at high risk of developing breast cancer, either due to family history or having inherited a genetic mutation. In this group 359 women were found to carry a gene mutation

1996 ASK THE BREAST DOC 2006

predisposing them to breast cancer. The women were screened every six months with a clinical breast examination and every year with mammography and MRI. It was concluded that MRI is a more sensitive screening method than mammography in detecting tumors in women at high risk for developing breast cancer.

In this study from the Netherlands, it was concluded that while MRI is a more sensitive screening method than mammography in detecting tumors in women at high risk for developing breast cancer, a drawback of this modality “is that it has a lower specificity than mammography, and as a result, MRI screening will generate more findings judged as uncertain, which require short-term follow-up or additional investigations.”

(source: *New England Journal of Medicine*, Volume 351:427-437, 7/29/04, Number 5)

WHOA! We are not ready to replace mammography with MRI! Like sonography, MRI complements mammography.

Q: My doctor recommended aspirin to reduce my risk of breast cancer. What's up with that?

A: Aspirin is an anti-inflammatory drug. The role of inflammation in breast cancer is now being studied, particularly COX-1 and COX-2, which are enzymes involved in inflammation. COX-1 is present in normal cells and COX-2 has been found to be associated with breast cancer. COX-2 increases prostaglandins, which in

turn increase the production of estrogens. Estrogens, of course, have been implicated in the promotion or acceleration of breast cancer. Drugs that block COX-1 and COX-2 enzymes include non-steroidal anti-inflammatory drugs such as aspirin, Vioxx and Celebrex.

Early evidence, reported in the NCI *Cancer Bulletin* from the National Cancer Institute showed a 20 % reduction in breast cancer risk with the use of aspirin once a week for at least six months. Taking a daily aspirin was associated with a 28 % reduction in breast cancer. It may also decrease the risk of ovarian and colon cancer. Presently, we do not know the ideal dose or frequency; so, until more is known, speak with your doctor about taking a daily baby aspirin (regular strength aspirin is associated more with gastrointestinal bleeding and irritation).

You can look forward to hearing more about blood tests to detect spread of cancer and genetic fingerprinting of tumors to learn about their biologic behavior. Hopefully, with this information, we may be able to better predict outcomes and who needs or doesn't need aggressive treatments. You will hear more about targeted therapies to reduce the toxicity of breast cancer treatments as well.

Q. How do I know that I'm going to the right breast imaging facility?

A. I get this question all the time. Health care consumers are savvy customers! You should speak to your

friends about referrals, go online to find out information about the doctor. It is not a shot in the dark!

There are standards that have been set by the Mammography Quality Standards Act (MQSA) of 1992 to maintain quality care. In order for a facility to receive clearance, it must be accredited by an approved body (in New Jersey, the “approved body” is the Environmental Protection Agency), and certified by the U. S. Department of Health and Human Services (HHS) after meeting a set of standards set by the Food and Drug Administration.

Furthermore, radiologists must read a designated number of mammograms each year to remain certified. The equipment that produces images is monitored by an independent examiner using phantoms (samples with or without abnormalities) to check the machine's accuracy. The doctor's and staff's qualifications are also verified. Additionally, the doctors are required to take Continuing Medical Education (CME) courses every two years within the specialty of breast imaging. A facility also performs ongoing “self-audits” for its radiologists' performances.

So now your question comes up again, “How can I be sure to trust this facility?” If the practice in question abides by the MQSA, there should be an American College of Radiology (ACR) plaque prominently displayed. Contact the ACR at mamm-accred@acr.org or at 800-227-6440, or log on to www.acr.org for further information.

1996 ASK THE BREAST DOC 2006

Q. I don't drink too often, but I do enjoy some wine every once in a while. How much can I drink without increasing my risk of developing breast cancer?

A. There is consistent association between alcohol and breast cancer risk. Alcohol is one of the best understood risk factors for developing breast cancer. According to Dr. Matthew Longnecker of the University of California at Los Angeles, alcohol acts like an estrogen-agonist as two or more drinks a day can increase your breast cancer risk by 10% (this value differs for various types of cancers), and an estimated 1-4% of all cancer cases are thought to be caused directly, or indirectly, by alcohol consumption.

I once told a woman with breast cancer to reduce the amount of wine she drank - approximately two glasses a day - by adding some seltzer in with the wine (remember those spritzers!?). I guess she was drinking formidable wine since she was aghast that I asked her to dilute her wine; not only was she an oenophile, but her husband was also a successful wine merchant and spirit connoisseur. She did, however, take my advice and cut down on her alcohol consumption.

It is not known if binge drinking increases the risk of breast cancer more than an occasional drink, though I don't think it can be a *good* thing. On the question of what types of alcohol are less harmful to you, a drink is a drink is a drink! There is no difference in what kind of spirits you consume on your risk of breast cancer.

Beware of taking hormone replacement therapy and drinking alcohol. There is a strong association with increased estrogen levels soon after alcohol is consumed which may, in effect, compound the risk of developing breast cancer.

According to the Harvard School of Public Health, a diet that is high in folic acid can decrease the risk of developing breast cancer. Folic acid is an important part of our diet and can be found in dark green leafy vegetables, legumes, citrus fruits and juices, fortified breakfast cereals and, of course, vitamin supplements. For those of you who have more than one drink a day, extra folic acid - at least 600 micrograms daily - should be taken to help counteract the increased risk caused by alcohol consumption. My advice is three to four drinks a week.

Q: I have a 1.5 cm cancer with negative lymph nodes which my doctor says has "good prognostic features". I need to make a decision whether to take chemotherapy. I would like some more information as to the benefit that I could derive from these drugs.

Dr. Richard Michaelson, a member of the North Jersey Affiliate Medical Advisory Council and Chief Medical Officer for Oncology at the Cancer Center of Saint Barnabas, had this to say:

A: In oncology, we try to estimate the risk of a particular cancer spreading or metastasizing after its removal. The most important predictors are tumor size and lymph node status. In your situation, a tumor size of less than 2 cm and negative nodes are both favorable features and together predict for a relatively small risk of metastases developing.

However, we know that even within this favorable group, some women are much more likely to develop metastases than others. So we try to further define the risk of recurrence by looking at other features such as the grade of the tumor, whether there are tumor cells in lymph channels on the way to the lymph nodes, whether the tumor expresses too much of a protein called HER2/neu, and whether the cancer is estrogen dependent (ER positive) or not. Once we have estimated the risk of the cancer metastasizing, based on these features, we can then assess the relative benefits of various treatments including endocrine therapies (which lower estrogen stimulation of tumors), various types of chemotherapy and radiation. We also sometimes utilize a new test, called Oncotype Dx™, in certain situations to help in this assessment.

By synthesizing all of this information, your oncologist should be able to estimate, in a general way, the risk of a metastasis in your particular situation, share with you the various options to reduce that risk, discuss the benefits and risks of each, and work with you in formulating a plan which is most appropriate for your specific medical situation.

Q: Since your last newsletter is there an update on COX-2 inhibitors?

A: In our last newsletter I addressed the use of COX-2 inhibitors such as Celebrex in reducing the risk of breast cancer. This class of drugs such as Vioxx, Bextra and Celebrex, were initially developed for arthritis pain relief. Soon after their introduction to the market, however,

1996 ASK THE BREAST DOC 2006

research showed that they may also be beneficial in fighting breast and colon cancer. In 2004, Merck Pharmaceutical Company pulled Vioxx from the market, subsequently followed by Pfizer Pharmaceutical Company removal of Bextra and termination of colon cancer studies with Celebrex, as scientists found that it increased the risk of both heart attacks and strokes. COX-2 is the abbreviated name for a group of enzymes called cyclooxygenases, which produce prostaglandins, a type of chemical messenger. Prostaglandins are produced by most tissues in the body and participate in many physiological functions such as inflammation control and blood pressure. COX-2, specifically, produces prostaglandins that are responsible for the pain associated with arthritis.

Now you're probably asking, "What does this have to do with cancer?" Studies on tumors have demonstrated that they produce COX-2 very early in their development. Prostaglandins will attach to tumor cells causing a chain of events that leads to the cancer's fast growth. It occurred to researchers that perhaps if these drugs can inhibit COX-2, they might also hinder the growth or development of tumors.

While Vioxx and Bextra have been put back on the market, conclusive information has yet to be made. Nicole Saiontz from the National Institutes of Health stated that, "the data on the effect of COX-2 inhibitors or NSAIDs (non-steroidal anti-inflammatory drugs) on breast cancer are not conclusive at this time, but study results suggest promising areas for future research." The reintroduction of these drugs onto the market allowed many experiments to resume. At M.D. Anderson Cancer Center, a study involving Celebrex and

the possibility of preventing breast cancer in high-risk women was briefly suspended after reports were released regarding the side effects of COX-2 inhibitors. Similarly, the National Surgical Adjuvant Breast and Bowel Project (NSABP) halted research involving Celebrex that studies two types of chemotherapy for women whose cancer had not spread to the lymph nodes. Researchers were evaluating if either chemotherapy was more successful when complemented with Celebrex. This study has since resumed; however, Celebrex is no longer used in the study.

The question now is whether or not the COX-2 medications should be further tested for cancer treatment and whether it may be worth trading a painful knee for the possibility of a heart attack? For a healthy person it may be a no-brainer, but for a person with breast or colon cancer it may be a different story. I'll keep you updated as more information becomes available.

Q: Is there a link between diet and breast cancer risk ?

A: For a long time many have believed that there is a possible link between diet and breast cancer. To date, there is no sufficient evidence to support a protective effect of fruit and vegetable consumption in lowering risk for breast cancer. However, there is a growing body of research looking at possible benefits of specific food groups (such as phytoestrogens or plant-like estrogens, i.e., soy) but nothing is conclusive yet.

Because diet and the distribution of body fat play a key role in the metabolism of sex hormones, such as estrogen, these factors may also increase the risk of developing the

disease. Therefore, one can logically conclude that a diet low in fat may reduce the incidence of breast cancer. In a study published in 2004, almost 9,000 Italian women (between 1987 and 1992) were placed on one of four diets where the incidence of breast cancer was recorded for each different diet*. These women were voluntary participants in this study and may have altered and biased the final results since they were not representative of a general population but perhaps of a more health-conscious group of individuals. According to this research, those who were on the "salad vegetable" diet that consisted primarily of raw vegetables and olive oil had the lowest occurrence of breast cancer. Those in the "western group" (so appropriately named) consumed a diet of potatoes, red meat, eggs, butter and cakes and saw no correlation to an increased risk of breast cancer. However, in previous studies, it was concluded that such a diet did, in fact, raise the risk for postmenopausal women. The third diet, known as the "canteen" group, was classified by pasta, tomato sauce, and wine. The final group, called the "prudent" group, was characterized by poultry, fish, cooked vegetables, rice, and a low consumption of alcohol. While both "prudent" and "salad" groups are healthy, only the latter demonstrated a lower risk of developing breast cancer, likely because of the consistent consumption of raw vegetables. The "salad" diet demonstrated a reduction of more than 50% of the risk of developing breast cancer. This value, however, was present only among women with a body mass index (BMI) less than 25 and not for overweight women.

1996 ASK THE BREAST DOC 2006

To calculate your BMI:

$$\text{BMI} = \left(\frac{\text{Weight in Pounds}}{(\text{Height in inches}) \times (\text{Height in inches})} \right) \times 703$$

| BMI | Weight Status |
|----------------|---------------|
| Below 18.5 | Underweight |
| 18.5-24.9 | Normal |
| 25.0-29.9 | Overweight |
| 30.0 and Above | Obese |

(Source: The Center for the Disease Control and Prevention)

It is also well known that obesity plays a role in the development of breast cancer after menopause. And, keep in mind, that there are other well documented and important health reasons to watch your diet and weight. Colon cancer and heart disease, two major killers of women in our society, are certainly linked to diets high in animal fat.

Q: Were our grandmothers way ahead of their time when they told us to eat our broccoli...or was it sprouts?

A: In studies performed by Johns Hopkins University School of Medicine, researchers have been investigating "anti-cancer" compounds found in broccoli and other leafy green vegetables known as "cruciferous" vegetables which have been shown in lab testing to reduce the frequency, size and number of tumors in rats. These studies have shown that an average person would have to eat two pounds of broccoli a week, or a similar vegetable like cauliflower or cabbage, in order to cut the risk of cancer in half. These "anti-cancer" compounds called sulforaphanes and indole 3-carbinol have much higher concentration in broccoli sprouts and so, if one were to eat a little more than one ounce a week, theoretically the reduction of risk would be the same. However, little solid evidence exists which links any particular "miracle food group" to salvation.

There are also critical windows of exposure that are important in reducing cancer risk. We should start with our adolescents by keeping them away from thick shakes and french fries and active on the soccer field.

* Cancer Epidemiol Biomarkers Prev. 2004;13(4):567-572

Q: I am 45 years old and recently had a biopsy that showed precancerous findings (they told me I had atypical ductal hyperplasia). My sister had breast cancer at the age of 41. Should I take tamoxifen to reduce my risks and what are my risks for developing breast cancer?

I asked Dr. Julia Smith, Director, Breast Cancer Screening and Prevention Program at the NYU Cancer Center. This is what she said:

A: You are considered to be at a higher risk for developing breast cancer. However, by no means is it inevitable that breast cancer will develop, but risk for breast, ovarian and possibly other related cancers must be investigated and addressed. How high your individual risk is depends on a number of factors, and a full and thorough consultation with a risk specialist/prevention doctor is appropriate. Certainly since your sister was 41 when she was diagnosed, a full family tree assessment, called a pedigree study, would be recommended to determine a possible familial link (i.e., inheriting a BRCA genetic mutation). There are possible interventions that may be helpful and should be considered. Tamoxifen may be one. We are looking at interventions, including the possibility that the new class of drugs, the aromatase inhibitors (AIs) - already so useful in treating breast cancer - may have a role in prevention. A large government sponsored trial is being initiated in Boston using these agents for prevention in postmenopausal

women, but you are a premenopausal woman and it is this group of women we are specifically planning to evaluate in our trial looking at the AIs which may also have a role in decreasing breast density. You should consult a good prevention and risk assessment program, discuss your options, and work with the doctors as a team to develop a plan that will work for you.

Incidentally an MRI may be helpful if you have dense breast tissue.

Q. I had a mastectomy several years ago and decided against a reconstruction. What are my options for reconstruction now?

A. Secondary or delayed reconstructions are more difficult to perform than doing a reconstruction immediately because of the scarring and resultant tightening of the skin. However, Dr. Barry Goldenberg, a plastic surgeon in New York City who specializes in breast reconstruction, says this doesn't preclude using an implant or your own tissue. As a matter of fact, he is seeing an increasing number of women who have decided against immediate reconstruction. Each person needs to be individually evaluated for the best possible result. For instance, if someone received radiation therapy after mastectomy, it is likely that autologous tissue (or one's own tissue) may be the better choice.

Q. I had a lumpectomy several years ago and now my breasts don't match. What can be done?

A. It is not uncommon to have a discrepancy in breast size even without any surgery. Dr. Goldenberg uses a wide variety of procedures to obtain breast symmetry. They range from augmenting the involved breast

1996 ASK THE BREAST DOC 2006

with an implant to performing breast reduction on the opposite breast if the size of the breasts make it appropriate. A combination of these techniques along with local tissue flaps to correct irregularities or mastopexy (breast lift) can also be used simultaneously.

Q. Can you clarify the exciting breakthroughs I have been reading about for a woman who has an early breast cancer and is told that she needs chemotherapy?

Dr. Paula Klein, medical oncologist at Saint Vincents Comprehensive Cancer Center in NYC and a North Jersey Affiliate Medical Advisory Council member, agreed to respond.

A. The most exciting medical breakthroughs include the results demonstrating the extraordinary benefit seen in the use of Herceptin with standard chemotherapy compared to the same chemotherapy alone in preventing relapse (recurrence) of early stage breast cancer in patients whose tumor overexpressed the HER2 oncogene. The magnitude of benefit was one of the largest ever seen in the adjuvant treatment of early stage breast cancer and will change the standard of care for these patients with HER2 positive breast cancer in the incorporation of this antibody in their care.

Another exciting breakthrough is the prolongation of survival with the use of Avastin, another monoclonal antibody to the VEGF (vascular endothelial growth factor) receptor when given with Taxol in the early vascular endothelial growth factor treatment of advanced breast cancer. The VEGF receptor is located on the surface of the cell and, when Avastin binds with it, it inactivates the growth of cancer cells including the growth of new blood vessels which the tumor needs to survive.

In the Investigator's Corner

It is a known fact that women who are BRCA positive (those who test positive for this genetic mutation through a simple blood test) are at a high risk of developing not only breast cancer, but ovarian cancer.

I asked Dr. David Fishman, who directs The National Ovarian Cancer Early Detection Program (NOCEDP) and is Director of Gynecologic Oncology and Cancer Prevention and Early Detection at New York University Medical Center, to answer some questions.

Dr. A: This is an extraordinary time for women and women's health. Congratulations on your exciting research in ovarian cancer. What are you doing to make ovarian cancer a treatable disease ?

Dr. F: Ovarian cancer is the second most common malignancy of the female genital tract and the most common cause of death from gynecological cancer in the United States. Presently, only about 20% of ovarian cancer patients are diagnosed with localized stage disease (Stage I). Unfortunately, 70-75% of women will have widespread disease at the time of their diagnosis (Stage III or IV) with a predicted 5-year survival of about 15%. This poor survival rate has remained essentially unchanged over the past 40 years despite the advent of aggressive radical surgical interventions approaches and new therapeutic interventions.

In contrast, if ovarian cancer is detected when confined to the ovary (Stage I), the 5-year survival approaches

90%, requires less radical operations, and may not require adjuvant chemotherapy. This suggests that novel strategies for early detection of early stage disease will have a significant impact on the survival of women.

Dr. A: Tell me about your innovative research program that is sponsored by the National Cancer Institute.

Dr. F: The National Ovarian Cancer Early Detection Program (NOCEDP) was established in 1999 to achieve the early detection of ovarian cancer and, ultimately, to reduce the number of deaths from this disease. This multidisciplinary, international research consortium consists of clinicians and scientists from the federal agencies, prestigious universities, clinics, and industrial partners. The NOCEDP provides clinical care for women who are at substantially increased risk for the development of ovarian cancer as defined by a personal history of breast cancer or family history of ovarian cancer, or presence of an inherited gene mutation. Our research examines both protein profiles and unique proteins in the serum of women with ovarian cancer.

We believe that certain unique proteins for which we can test may provide new diagnostic information for early detection of EOC. The potential clinical application of this research proposal will be the development and validation of new minimum-risk blood test(s) for the accurate detection of early rather than late stage ovarian cancer, which should greatly benefit women's health care.

1996 AND THE JOURNEY CONTINUES...

CANCER FACTS & FIGURES, 2006

One woman is diagnosed with breast cancer every three minutes, and one woman will die of breast cancer every 13 minutes in the United States.

One every three minutes is derived from the following equation: $365 \text{ days/yr} \times 24 \text{ hr/day} \times 60 \text{ min/hr} = 525,600 \text{ minutes in each year}$
 $525,600 / 212,920 \text{ women diagnosed/yr} = 2.46 = 3$
One woman every three minutes is diagnosed with breast cancer.

One every thirteen minutes is derived from the following equation: $365 \text{ days/yr} \times 24 \text{ hr/day} \times 60 \text{ min/hr} = 525,600 \text{ minutes in each year}$
 $525,600 / 40,970 \text{ women die/yr} = 12.82 = 13$
One woman every 13 minutes dies from breast cancer.

Breast cancer death rate has been dropping about 2 percent annually since 1990 to 2002 in all women combined, with larger decreases in younger (<50 years) women, a decline attributed to earlier detection through screening, increased awareness, and improved treatment.

- An estimated 212,920 new cases of invasive breast cancer are expected to occur among women in the United States during 2006.
- In addition to invasive breast cancer, 61,980 new cases of in situ breast cancer are expected to occur among women during 2006.
- Ductal carcinoma in situ (DCIS) accounted for 85 percent of in situ breast cancers diagnosed from 1998-2002.
- Breast cancer is the most frequently diagnosed cancer among women.
- An estimated 40,970 women will die from breast cancer in 2006.
- Breast cancer is second only to lung cancer in cancer deaths.
- An estimated 1,720 new cases of breast cancer will be diagnosed in men in 2006.
- Between 1975-2002, the incidence rate among men increased 1.1 percent per year.
- An estimated 460 men will die from breast cancer in 2006.
- The relative survival rates for women diagnosed with breast cancer are:
 - 88 percent at 5 years after diagnosis
 - 80 percent after 10 years
 - 71 percent after 15 years
 - 63 percent after 20 years
- The five-year relative survival rate for women with localized breast cancer (cancer that has not spread to lymph nodes or other locations outside the breast) has increased from 80 percent in the 1950s to over 95 percent in 2006.
- The five-year survival rate for regional disease is 81 percent and 26 percent for distant-stage disease.
- The relative survival rates for women diagnosed with breast cancer before age 40 are slightly lower.
 - 82 percent for women younger than 40
 - 89 percent for women aged 40-74
 - 88 percent for women aged 75 and older

1996 AND THE JOURNEY CONTINUES...

CANCER FACTS & FIGURES, 2006

- African American women are less likely to survive five years than white women, 76 percent vs. 90 percent respectively.
- The most proven and significant risk factors for getting breast cancer are being female and getting older.
- Approximately five to ten percent of breast cancers are due to heredity. The majority of women with breast cancer have no known significant family history or other known risk factors.
- A woman's chance of developing breast cancer increases with age. In the United States, a woman has about a 13.2 percent, or 1 in 8, lifetime risk of developing breast cancer.
- Incidence trends of breast cancer for all races are as follows:
 - 1975-1980: Incidence was essentially constant
 - 1980-1987: Incidence increased by almost 4 percent per year
 - 1987-2002: Incidence rates increased by 0.3 percent per year
- For the period 1998-2002, women ages 20-24 have the lowest incidence rate (1.3 cases per 100,000 population); women ages 75-79 have the highest incidence rate (496.6 cases per 100,000).
- During 1998-2002, the median age at the time of breast cancer diagnosis was 61 years old.
- From 1980-1987, incidence rates of invasive breast cancer increased among women aged 40-49 and 50 and older (3.5 percent and 4.2 percent per year respectively). Since then, breast cancer incidence rates have increased among women aged 50 and older, though at a slower rate. Incidence rates have declined slightly among women aged 40-49 and little change among women younger than 40.
- Rapid incidence increase between 1980 and 1987 is due largely to greater use of mammography screening and increased detection of breast cancers.
- During 1980-1987, incidence rates of smaller tumors 2.0 cm more than doubled. Rates of larger tumors (3.0 cm or more) decreased 27 percent.
- During 1988-1999, the trend in diagnosis of smaller tumors \geq 2.0 cm increased by 2.1 percent per year and has stabilized since.
- During 1992-2000, African American women were less likely to be diagnosed with smaller tumors (2.0 cm) and more likely to be diagnosed with larger tumors (2.1- 5.0 and $>$ 5.0 cm) than white women.
- White women have a higher incidence of breast cancer than African American women after age 35. However, African American women have a slightly higher incidence rate before age 35 and are more likely to die from breast cancer at every age.
- During 1992-2002, overall incidence rates increased in Asian Americans and Pacific Islanders (1.5 percent per year), decreased in American Indian/Alaska Natives (3.5 percent per year) and did not change significantly for Caucasians, African Americans or Hispanics/Latinas.
- Mortality trends of breast cancer for all races are as follows:
 - 1975-1990: Mortality rate increased by 0.4 percent per year
 - 1990-2002: Mortality rate decreased by 2.3 percent per year
- From 1990-2002, death rates decreased by 3.3 percent per year among women younger than 50 and by 2.0 percent per year among women 50 and older.

1996-2006 AND THE JOURNEY CONTINUES...

CANCER FACTS & FIGURES, 2006

- From 1990-2002, breast cancer death rates declined by 2.4 percent per year in whites, 1.8 percent in Hispanics/Latinas, 1.0 percent in African Americans and Asian Americans and Pacific Islanders and did not decline in American Indian/Alaska Natives.
- African Americans have the highest death rate from breast cancer of any racial/ethnic group in the United States.
- Since 2002, death rates have been 37 percent higher in African Americans than in white women.
- The chance of a woman dying from breast cancer is about 1 in 33 (3 percent).
- Ninety-five percent of new cases and 98 percent of breast cancer deaths reported during 1996-2002 occurred in women ages 40 and older.
- In the United States today, there are more than two million breast cancer survivors. Derived from the following equation: Estimated number of persons alive in the United States diagnosed with female breast cancer: 22 percent.

Invasive /1st Primary Cases Only (N = 10.1 Million) 10.1 Million x 22% = 2,222,000.

Data source: 2004 Submission. U.S. Prevalence counts were estimated by applying U.S. populations to SEER-9 Limited Duration Prevalence proportions. Populations from January 2002 were based on the average of the July 2001 and July 2002 population estimates from the U.S. Bureau of Census.

<http://cancercontrol.cancer.gov/ocs/prevalence/prevalence.html#survivor>. National Cancer Institute.

Source: American Cancer Society

1996 AND THE JOURNEY CONTINUES... 2006

*Courage
Hope
Support
Cure*



Susan G. Komen
Breast Cancer Foundation
North Jersey Affiliate

785 Springfield Avenue, Summit, NJ 07901
Phone: 908-277-2904 Fax: 908-277-6050

Email: education@njakomen.org
Website: www.njakomen.org
Komen National toll-free Breast Care Helpline:
1-800-PM AWARE® 1-800-462-9273

Editor: Barbara K. Waters