



Tamoxifen Reduces the **Incidence of Breast Cancer** in Women with Inherited **BRCA2 Mutations:**

A Genomics Resequencing Project Embedded in the NSABP Breast Cancer Prevention Trial (BCPT/P-1)

Changes, called alterations or mutations, in certain genes make some women more susceptible to developing breast and other types of cancer. Inherited alterations in the genes called BRCA1 and BRCA2 (BReast CAncer Gene 1 and 2) are involved in many cases of hereditary breast and ovarian cancer.

BRCA1 or BRCA2 breast and/or ovairan cancer is usually associated with women who have families with a history of multiple cases of breast cancer, cases of both breast and ovarian cancer, one or more family members with two primary cancers (original tumors at different sites), or are of Ashkenazi (Eastern European) Jewish decent. However, not every woman who has an altered BRCA1 or BRCA2 gene will get breast or ovarian cancer. Approximately, 1 in 10 breast cancer cases involves an inherited altered gene, and not all inherited breast cancer involves BRCA1 or BRCA2. Therefore, genes are not the only factor that affect cancer risk.

According to a recent study conducted by Mary-Claire King, PhD, of the University of Washington, Seattle, and co-author Bernard Fisher, MD, Scientific Director, National Surgical Adjuvant Breast and Bowel Project (NSABP), the drug tamoxifen seems to reduce the incidence of breast cancer in healthy women who carry BRCA2 gene mutations that make them suceptible to the disease. Although this news appears to be significant for women with this mutation, tamoxifen does not seem to reduce the breast cancer incidence of healthy women with BRCA1 mutations.

The Breast Cancer Prevention Trial (BCPT), which involved 13,388 women, demonstrated a significant reduction (49 percent) in breast cancer incidence among women who took tamoxifen. The benefit was evident in women who had mothers, sisters, and/or daughters with breast cancer, but it also seemed successful in women who had no family history of breast cancer. These findings led researchers to postulate that tamoxifen might also reduce the risk of breast cancer in women with BRCA1 or BRCA2 gene mutations.

negative tumors. Therefore, tamoxifen does not seem to be effective in women who develop ERnegative breast cancer.

The ER status of BRCA1 mutations appear different when compared to BRCA2 mutations. Several studies indicate that approximately 80 percent of breast tumors that occur in women with BRCA1 mutations are ER-negative. In contrast, other studies suggest that 80 percent of breast tumors that occur in women with BRCA2 mutations are ER-positive. Based on data from these studies, Dr. King analyzed the blood samples of women, without knowing who they were, participating in the BCPT for BRCA1 and BRCA2 mutations.

Two-hundred and eighty-eight (288) BCPT participants, who developed breast cancer while taking either tamoxifen or a placebo were analyzed. NSABP BCPT researchers recorded the number of breast cancers among women receiving tamoxifen with that of those receiving placebo. From this data, Dr. King and her colleagues studied the two groups for BRCA1 or BRCA2 mutations finding that 19 women (6.6 percent) had at least one of the two mutations. And it is from these women that Dr. King's findings show that tamoxifen seems to reduce the incidence of breast cancer by 62 percent in healthy BRCA2 mutation carriers, but not in healthy women with BRCA1 mutations.

What does this mean for STAR participants? More definative information on genetics, BRCA1 and BRCA2, and how they affect breast cancer is needed. To date, there is limited information about tamoxifen and genetics and none with regards to raloxifene and genetics. Dr. King's study is only the beginning to a long list of questions researchers have about the relationship between genetics and cancer. That is why your participation in STAR is so important. The more researchers understand about drugs such as tamoxifen and raloxifene and their effects on the human body the closer we will be to a cure.

Dr. King's article was published in the Journal of the American Medical Association (JAMA. 2001; 286:2251-2256)

Co-STAR: Cognition in the Study of Tamoxifen & Raloxifene

What are the goals of Co-STAR?

The principal goal of Co-STAR is to compare the effects of tamoxifen and raloxifene, both selective estrogen receptor modulators (SERMs), on ageassociated declines in memory and other cognitive abilities in women age 65 and over within the context of a randomized clinical trial. Therefore, Co-STAR will involve the collection of data on cognitive aging in a subset of STAR participants allowing a comparison of the two agents.

The secondary goal of Co-STAR is to compare the cognitive effects of tamoxifen and raloxifene with those resulting from hormone replacement therapy (HRT), specifically estrogen replacement therapy (ERT) and ERT plus progesterone, in the Women's Health Initiative Study of Cognitive Aging (WHISCA). Cognitive outcomes in Co-STAR participants will be compared with those from WHISCA participants. A comparison between the Co-STAR and WHISCA participants will provide insight into the effects of SERMs and ERT or ERT plus progesterone on cognitive functioning within the context of a clinical trial.

What are the study questions in Co-STAR?

- What is the rate of change in memory and other cognitive abilities in women receiving tamoxifen compared to women receiving raloxifene?
- Do tamoxifen and raloxifene have beneficial, neutral, or detrimental effects on ageassociated memory and cognitive decline in women over age 65?
- How do the cognitive effects of tamoxifen and raloxifene compare to those of ERT and ERT plus progesterone?

Why is Co-STAR being conducted?

Co-STAR is in response to the unique opportunity afforded by STAR to study the effects of tamoxifen and raloxifene on cognitive aging in women. As a substudy to STAR, Co-STAR will collect data on memory, other cognitive abilities, and mood in STAR participants randomized to either tamoxifen or raloxifene. Co-STAR data will provide unique information about the effects of these drugs on ageassociated cognitive decline.

Co-STAR will provide critical information for clinicians and researchers on the effects of tamoxifen and raloxifene on cognitive aging. As physicians increase the frequency of recommending tamoxifen for protection against breast cancer among healthy women, and raloxifene for protection against bone disease, this study is important to allow aging women to make informed choices about the relative benefits and risks of various estrogenic compounds.

Tamoxifen works by targeting estrogen receptors (ER) in breast tissue (tissue with the receptor is termed ER- • positive). Certain precancerous changes in the breast, however, may cause the loss of ER rendering • these tissues ER-negative. In the BCPT study, tamoxifen reduced the incidence of ER-positive tumors, but did not reduce the incidence of ER-

 It is important to note that this study addressed the incidence of new breast cancer cases among healthy women with BRCA1 or BRCA2 mutations, not the treatment of existing breast cancer. Among women with breast cancer that is ER-positive, tamoxifen has been shown (by NSABP and other studies) to reduce the risk of disease recurrence, regardless of the patient's BRCA1 or BRCA2 genotype.

New inside this issue

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What is known about the action of SERMs on neural tissue and cognitive functioning?

No data has been published on tamoxifen or raloxifene showing that these drugs impair memory. A recent publication from the Multiple Outcomes of Raloxifene Evaluation (MORE) study reported that treatment with raloxifene for three years did not affect overall cognitive scores. A Phase II study comparing raloxifene and placebo found no differences in cognition or mood.

...Continued on page 3

STAR Enrollment Report



Overall goal after 5 years of recruitment.



We Are A Family Working Together for One Cause

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DI Wickerham, MD STAR Protocol Officer & NSABP Associate Chairman

Alone you are

a single STAR.

Together we are

a Constellation.

ome of you may have experienced personal to this trial. Others may know someone who has had • of the way. We are here to help you continue on breast cancer. And still others, may be participating in 🟅 your path. Although you can always stop your this trial to ensure that future generations of women • do not get this disease. But no matter what

your reason is, all of us are here to hopefully prevent breast cancer before it has the opportunity to start, but we have a long way to go before this statement can hold true. As researchers, we do this study not only for your mothers, daughters, and nieces, but for ours as well. Therefore, I think of our relationship as an extremely large, extended family-united for one cause. As one of

our STAR coordinators put it, "Alone you are a single STAR. Together we are a Constellation." We are committed to finding a way to stop this disease but we need your continued support if this is to occur.

In July, STAR will be beginning its fourth year. Many of you have been with us since the beginning. Others may have just started, but let me update you on where we are today. As you can see by the side-bar to the left of this column, we are more than halfway to our goal with more than 13,390 women participating in this trial. However, we have touched many more women than this. As of May 30, 2002, more than 116,569 women have sent us their risk assessment forms so that we can calculate their risks for developing breast cancer. Of these women, 64,917 have had a significant risk (or more than 1.66% per year) and have been eligible to join STAR. But, for whatever reason, many of these women have decided not to participate. I know that joining a clinical trial is not for everyone and that it takes a special kind of person to do so. However, as a physician, it is still disappointing. Even though we have alerted thousands of women to this service and to this study, many of them choose a different path. If we could reach only half or one third of these women and show them the importance of joining this trial, then we will have reached our goal and our evaluation of the collected information could begin. As it stands now, we will only be accruing women to this trial for another 2 years and results will not be known until at least 2009. Just think of all the women that could have been helped by this information if this trial could end sooner.

We are asking for your help in two ways.

First, we would like you to help us spread the word about STAR to your family physician, employer, church, and social organizations —you are all STAR ambassadors and who else knows more about being in a clinical trial than you? And to put your mind at ease, we aren't asking that you stand up in front of a group of people to talk about STAR, which could be a little overwhelming. We are just asking that you "open the door" for the STAR physician and/or program coordinator to walk through. Talk to your family and friends and be proud of your connection to this study. Of course there are always skeptics and opposition and if there is, you can just move along. We don't want to force anything on anyone, this is not our intent. But, we feel that you will find that people will be interested in what you have to say. Your STAR program coordinator can provide you with some beginner materials, such as the STAR brochure and poster. The NSABP is currently working on a packet of information that will be geared toward helping you with these efforts. This packet will be made available to you through your STAR program coordinator when it is completed.

study you take an oath, of sorts, to follow the trial to tragedies within your families that have led you 🟅 its end and we take an oath to follow you every step

participation in this trial whenever you wish, we cannot. We continue to follow your

progress and submit and collect forms even if you never show up at another appointment. But let me briefly explain how this affects the information we collect.

The purpose of a clinical trial is to obtain health outcome information to address an important medical hypothesis. STAR is comparing the effect of tamoxifen and raloxifene on the development of invasive breast cancer.

When this trial was planned, we designed it to include enough women (22,000) to ensure that it is likely that the healthcare information that we collect is reliable enough to answer the questions we are asking in this trial. Therefore, if we do not reach our total number of women in this trial or if too many women stop their study medication or drop out of the study, then the answers we seek may not be found.

As I stated before, we are a family that is here to help one another. Sometimes being in a clinical trial is difficult, especially if you are dealing with some of the physical symptoms that may be derived from taking these study medications. However, many of these difficulties can be managed. Please let your study coordinator know if you are having problems adhering to a daily pill schedule because of hot flashes or other symptoms before they become too overwhelming

You joined this study not only to help others, but to take a proactive step towards your own future health. Here are some other steps you can take to help you along the way:

- Associate taking your pills with a typical daily activity such as brushing your teeth, showering, or after eating.
- Utilize pill containers to ensure that you take your pills on a daily basis.
- Record when you take your pills on a calendar or in a log or diary.
- Keep the communication lines open between you and your STAR program coordinator.
- If you have an unusual schedule that continuously fluctuates, then talk to your STAR program coordinator to come up with the best

YOU ARE HERE... 13,390 women have been recruited to STAR as of May 30, 2002.



July 2, 2001 Happy 2nd Birthday, STAR! As of this date, 10,473 women enrolled in STAR and more than 84,000 women had their breast cancer risk assessed.

June 30, 2000

Birthday, STAR!

As of this date,

6,136 women

STAR and more

women had their

enrolled in

than 47,000

breast cancer

risk assessed.

Happy 1st

July 1, 1999 Enrollment to **STAR Began**

The second thing you can help us with is your continued commitment in taking your study medication and arriving at all of your follow-up appointments. When you agree to participate in this

- schedule for you to take your pills and to come in for follow-up visits.
- Ask your STAR program coordinator to send you a reminder card a week or two before your next office visit.

- Ask your STAR program coordinator if there are other participants who might be willing to form a STAR support group. It is always nice to talk to others who are going through similar experiences.
- Ask to be informed about any news concerning the trial. The STAR program coordinators are frequently updated on a variety of topics through e-mail, faxes, the Internet (www.nsabp.pitt.edu), and biannually at NSABP Group Meetings.
- And, if you hear about information that you feel may be related to STAR, tamoxifen, or raloxifene, please feel free to contact your STAR program coordinator at any time.

Thank you again for your perseverance and dedication throughout this trial. We are indebted to your commitment and you have our utmost admiration!

Co-STAR: Cognition in the Study of Tamoxifen & Raloxifene ... from Pg. 1

How do ongoing studies of hormone replacement therapy (HRT) and dementia and cognitive aging relate to Co-STAR?

Since estrogen may have a positive effect on cognitive function and SERMs may replace traditional HRT for women who cannot or do not wish to take hormones, the question of the effect of SERMs on cognition comes to the forefront.

The Women's Health Initiative Memory Study (WHIMS), designed to test the hypothesis that HRT reduces the incidence of all-cause dementia and Alzheimer's disease in women aged 65 and older, is currently being conducted. Another ongoing study, WHISCA, a substudy to WHIMS is being funded by and conducted in collaboration with the National Institute on Aging and is focusing on the acquisition of data on memory, other cognitive abilities, and mood in WHIMS participants. WHISCA is the largest randomized trial of HRT on normal cognitive function; the study will provide invaluable data on the effects of hormone treatments on normal cognitive aging.

How is Co-STAR designed?

Approximately 2,000 women, 65 years of age and older, will be enrolled into Co-STAR over a three-year period. Following their enrollment into STAR and after being randomized to either tamoxifen or raloxifene, women will be recruited into Co-STAR. Those who agree to enter Co-STAR will undergo a baseline assessment comprised of tests for memory, other cognitive abilities, and mood. Participants will receive a similar test once a year for the next 4 years.

Who is eligible for Co-STAR?

STAR participants who are:

- at or near a STAR site participating in Co-STAR can volunteer;
- enrolled in STAR and have been assigned to either tamoxifen or raloxifene;
- 65 years of age and older;
- not, or have ever been, diagnosed with dementia; and
- willing to sign a separate consent form to participate Co-STAR.

Co-STAR will only enroll 2,000 STAR women. With this in mind, each Co-STAR clinical center was selected based on its geographic location, ethnic diversity, and age appropriate population (65+ years). For more information on Co-STAR, contact to your STAR coordinator to see if your site is participating in this study. If you need additional help finding a Co-STAR site, please contact the Co-STAR Central Coordinating Center toll-free at 866-716-9094.

For more information on SERMs & cognitive functioning in postmenopausal women, please consider reading the following:

Selective Estrogen Receptor Modulators: A New Category of Therapeutic Agents for Extending the Health of Postmenopausal Women Goldstein SR

American Journal of Obstetrics and Gynecology



Reflections From Inside a Clinical Trial

Reflections... was submitted by **Suzanne Blanchard of Duxbury**, **Massachusetts**, a STAR participant at Dana-Farber Cancer Institute. She has given permission for the NSABP to print this article in Constellation. The thoughts and words are her own and we thank her for sharing them with all of us. If you would like to share your experiences "from inside a clinical trial," please send them to the NSABP (address available on back page) and you too may see your story highlighted in an upcoming issue of Constellation.

never expected my lovely daughter to teach me how to die, with such courage, grace, and love.

It all began with a call from Bambi, a 37-year-old mother of three, anxiously saying that overnight, her left breast had doubled in size. This had happened

while she was on a field trip to Washington, DC, during the spring of 1998, with her son Peter. After speaking to her doctor, he told her that it was probably just an infection, and antibiotics were prescribed. After two days, the swelling and pain were worse. With Bambi's insistence, a biopsy was scheduled. We all had trouble waiting those few days before the procedure was due, but we played over and over in our minds what her doctor had said and that it was very likely nothing to worry about.

The diagnosis, unfortunately, was everything to worry about. Inflammatory breast cancer, a rare disease that claims the lives of nearly all its victims in three to eighteen months, often having metastasized before being discovered. In my daughter's case, the cancer had already spread through most of the bones in her body. This type of breast cancer is indeed so rare that Bambi's doctor in Dartmouth had never seen another such patient in his practice. On that lovely April

"I am hoping to be a small part of the army, which is now fighting this war...

...(to one day) hear the words, 'Breast cancer-no longer a problem!'"

humor, Bambi attended the school functions of her three young children and the many family gettogethers joking about her wigs, her bruised arms, and her high-necked bathing suits. Even at the end of her battle, when she was facing gruesome

fatigue and heightened pain after eighteen months of her illness, she kept that beautiful smile and her faith-even during her final three days when her family and friends came to say goodbye, telling her of their love and respect, as she rested in her home.

Indeed, it is for my daughter, first of all, that I wanted to take part in STAR. During the progression of her cancer, she had allowed the doctors to take extra bone marrow tests and other procedures for research, enduring additional pain, but hoping that further knowledge of her cancer could be found. I'll never forget the brightness of Bambi's smile when I told her I had been accepted in this trial. "That's great, Mom. I'm proud of you!"

Secondly, it is also for the many dedicated, wonderful doctors and nurses at Dana-Farber in Boston, that I wanted to continue her desire to find more answers to the many questions we still have about breast cancer. The staff treated Bambi with such skill and kindness, especially her key physician, Dr. Hal Burstein. He made her feel so special, so unique, and so loved. As Hal walked with her on that dreadful path to death, we could hear in his every word and step an echo of our sorrow and loss that one so kind, so exceptional, was not to be saved.

179:1479-84, 1998

Selective Estrogen Receptor Modulators: A New Paradigm for HRT Baynes KCR, et al Current Opinion in Obstetrics and Gynecology 10:189-92, 1998

> Designer Estrogens Jordan VC Scientific American, 279:60-7, 1998

Cognitive Function in Postmenopausal Women Treated with Raloxifene Yaffe K, et al New England Journal of Medicine, 344:1207-13, 2001

Raloxifene Hydrochloride, A Selective Estrogen **Receptor Modulator: Safety Assessment of** Effects on Cognitive Function and Mood in Postmenopausal Women Nickelson T. et al Psychoneuroendocrinology, 24:115-28, 1999

The Women's Health Initiative Memory Study (WHIMS): A Trial of the Effect of Estrogen Therapy in Preventing and Slowing the **Progression of Dementia** Shumaker SA, et al Cont Clinical Trials, 19:601-621, 1998

day, the deep, raw wounds carved by that doctor's words changed life forever for her and all of us in the family.

At first, her war seemed so easy. With gentle determination and ease, she slid through the chemo and radiation. With a mixture of fear and courage, she survived the three weeks of hospitalization and imprisonment of her stem cell transplant, which brought her success with a brief remission. With sadness and even a bit of anger, she occupied too much of her time with phone calls and letters to her insurance company, which, surprisingly to all of us, became another battleground. With love and

Yes, participating in STAR, I am hoping to be a small part of the army, which is now fighting this war. All of us, I'm sure, hope to enable doctors to find the knowledge, which will allow our granddaughters. daughters, mothers, aunts, and friends to hear the words, "Breast cancer-no longer a problem!" With this joined determination, we will be the victors!

-In memory of Bambi.

What You Need to **Know About Symptom** Management

he strategies listed here are suggestions, not requirements, that may alleviate bothersome symptoms. However, we strongly encourage you to consult with your STAR healthcare provider before beginning any new intervention to make sure that it is compatible with other medications or supplements you are currently taking and to discuss doses that are right for you.

There is often little scientific data on many of these strategies. This is because few controlled studies have been done. Further, herbal remedies do not require approval from the US Food and Drug Administration (FDA). As a result, manufacturers can make virtually any claim they like. That said, your STAR healthcare provider is invested in working closely with you to help manage any symptoms that may occur to make your experiences in STAR positive ones.

In addition to working closely with your STAR healthcare provider, it is important to try only one strategy at a time and to stick with it for at least a month or so. This provides ample time for you and your STAR healthcare provider to assess what works best for you as an individual.

Potential Side Effects and Suggestions for Alleviating These Symptoms

* If overwhelming symptoms persist, ask your STAR healthcare provider about prescription medications.

Hot Flashes*

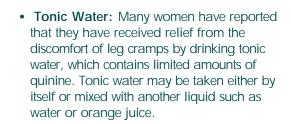
Hot flashes usually begin as a sensation in the head, neck, upper chest, and back, and can spread to the entire body. The intensity and frequency of hot flashes vary; a woman may experience as few as one a day, or as many as three an hour. Hot flashes may interrupt sleep, causing irritability and insomnia.

Practical Suggestions for Hot Flashes

- Record the number of hot flashes per day/week
- · Wear absorbent, cotton clothing
- Dress in layers
- Lower the thermostat
- Avoid caffeine and spicy foods
- Exercise regularly
- Learn relaxation techniques
- Try to identify "triggers" that may prompt hot flashes and avoid them

Over-the-Counter Interventions

- Vitamin E, 800 IU daily
- Vitamin B complex, 200 mg. daily
- Vitamin C plus bioflavinoids, (compounds found in plants) two tablets three times daily. Available over-the-counter as Peridin-C[®]. This product is often not available in stores, but can be ordered through a pharmacist. It can also be purchased directly from the manufacturer (1-800-238-8542).



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Vaginal Dryness*

The high estrogen levels of the premenopausal years help to maintain healthy vaginal tissue. As women begin menopause and their estrogen levels decrease, the vaginal lining becomes thinner and has less lubrication. These changes may cause women to experience vaginal dryness and pain with intercourse.

Practical Suggestions for Vaginal Dryness

- Take warm baths to alleviate itching and discomfort
- Wear cotton underwear
- Avoid douches, feminine hygiene sprays, and perfumed soaps or toilet paper

Over-the-Counter Interventions

- Replens[®], a vaginal lubricant designed to hydrate the vaginal tissue
- Moisturizers such as Gyne-Moistrin $^{\ensuremath{\mathbb{R}}}$ and Lubrin[®] vaginal suppositories
- Water-soluble lubricants such as K-Y Jelly[®] and $\mathsf{Astroglide}^{\mathbb{R}}$
- Acidophilus, 460 mg taken orally once a day

Hormonal Interventions Permitted

Estring[®] and Vagifem[™] are the only hormonal agents permitted in STAR. If dryness persists, a STAR participant may ask her doctor to prescribe Estring[®], a ring inserted into the vagina for three months which self-releases a low dose of estrogen. Women who cannot tolerate Estring[®] may be prescribed Vagifem™, a vaginal tablet which also releases a low dose of estrogen and is inserted into the vagina daily for two weeks and then twice weekly. With both products, the additional use of vaginal lubrication is recommended.

Alternative therapies such as herbs, nutritional supplements, and soy products continue to gain popularity as women seek additional ways to gain relief from their menopausal symptoms. Many of these contain naturally occurring estrogens (phytoestrogens). These products are not regulated by the Food and Drug Administration (FDA) and their dosage and purity cannot be guaranteed. The NSABP, the network of medical professionals conducting STAR, neither recommends nor prohibits the use of alternative therapies for STAR trial participants. If you choose to pursue the use of alternative therapies, we strongly encourage that you learn as much as possible about the product and discuss this information with your STAR

In The News...

Quality-of-Life and Depressive Symptoms in Postmenopausal Women After Receiving Hormone Therapy: Results From the Heart and Estrogen/Progestin Replacement Study (HERS) Trial

By	Mark A. Hlatky, MD, et al
•	Journal of the American
	Medical Association (JAMA)
	287:591-597, 2002

Hormone Replacement Therapy in Relation to Breast Cancer

By	Chi-Ling Chen, PhD, et al
•	Journal of the American
	Medical Association (JAMA)
	287(6):734-741, 2002

Outcomes of Tamoxifen Chemoprevention for Breast Cancer in Very High-Risk Women: A Cost-Effectiveness Analysis

Dy	
Published in	Journal of Clinical Oncology
	20(1):9-16, 2002

Indicators of Lifetime Estrogen Exposure: Effect on Breast Cancer Incidence and Interaction With Raloxifene Therapy in the Multiple Outcomes of Raloxifene **Evaluation Study Participants**

By	Mark E. Lippman, MD, et al
Published in	Journal of Clinical Oncology
	19:12:3111-3116, 2001

Tamoxifen and breast cancer incidence among women with inherited mutations in BRCA1 and BRCA2

By	Mary-Claire King, PhD, et al
Published in	Journal of the American
	Medical Association (JAMA)
	286:18:2251-2256, 2001

Chemoprevention of Breast Cancer with Selective Estrogen Receptor Modulators: Views from Broadly Diverse Focus Groups of Women with Elevated Risk for Breast Cancer By.....MS Cyrus-David, et al Published in.....Psychology-Oncology 10:521-533, 2001

Tamoxifen for the Prevention of Breast Cancer: Psychosocial Impact on Women Participating in Two Randomized Controlled Trials

By	Leslie Fallowfield, DPhil, et al
•	Journal of Clinical Oncology
	19:7:1885-1892, 2001

Hormone Replacement Therapy and Cognition: Systematic Review and Meta-analysis

By	Erin S. LeBlanc, MD, MPH, et al
	Journal of the American
	Medical Association (JAMA)
	285:11:1489-1499, 2001
	,,

Practical Issues in Counseli	ng Healthy
Women About Their Breast	Cancer Risk
and Use of Tamoxifen Citra	te
ByHolly Jane	Smedira, MD, et al
Published inArchives of	of Internal Medicine
160	:3034-3042, 2001

Breast Cancer Chemoprevention: Current Status and Future Directions

Current Status	and Future Directions
By	D. Lawrence Wickerham, MD, et al
U C	Seminars in Oncology

Leg Cramps*

A leg cramp is a painful involuntary muscular contraction that usually occurs in the calf or foot. Leg cramps can be associated with the drugs used in STAR. Only a few interventions are mentioned in scientific literature for the treatment of leg cramps. The following are suggested interventions that you may want to try if leg cramps become disruptive.

Practical Suggestions for Leg Cramps

• Exercise and Eating Right: Following a regular exercise program and eating foods that are high in calcium (i.e., low-fat milk) and potassium (i.e., banana) may help reduce leg cramps.

Over-the-Counter Interventions

 Calcium/Calcium Magnesium **Supplements:** There are a number of calcium products available over the counter. Consult your doctor about the appropriate supplement for you because the dose may be affected by other medications that you are taking.

healthcare provider.

More Serious Potential Side Effects

- Tamoxifen and raloxifene may also increase a woman's chances of developing several rare, but potentially life-threatening health problems: deep vein thrombosis (blood clot in a large vein) and pulmonary embolism (blood clot in the lung).
- Tamoxifen use may also increase a woman's risk of
- stroke and endometrial cancer (cancer of the lining
- of the uterus) at a rate similar to estrogen
- replacement therapy. In ongoing studies, raloxifene
- has not been associated with an increased risk of
- stroke or endometrial cancer. With your
- participation, STAR will help further define the risks
- and benefits of tamoxifen and raloxifene therapy.
- Your STAR healthcare provider has provided you
- with detailed information about these types of side
- effects before you agreed to participate in STAR
- during the consent process.

This information was taken from the STAR Symptom Management Strategies brochure. If you would like a copy of this brochure, please contact your STAR healthcare provider.

28:3:253-259, 2001

Constellation

is published by the National Surgical Adjuvant Breast & Bowel Project (NSABP) for the purpose of informing and updating all STAR participants on issues related to this clinical trial.

Questions and/or comments related to this publication and STAR may be submitted to:

NSABP Operations Center

Public Relations & **Communications Section** East Commons Professional Building Four Allegheny Center – 5th Floor Pittsburgh, PA 15212

www.nsabp.pitt.edu