

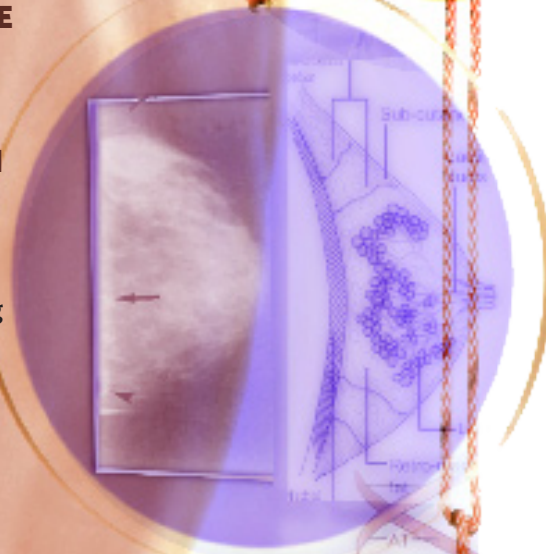
Moving Beyond the Fear

THE TIME HAS COME TO GET OVER THE ANXIETY SURROUNDING BREAST CANCER AND TAKE STEPS TO LIVE LONG, HEALTHY LIVES. THESE WOMEN HAVE DONE IT—AND YOU CAN TOO. BY JEANNETTE MONINGER

Almost every woman wonders, am I going to get breast cancer someday? It's women's most feared disease and with good reason: No one is 100% safe.

"The majority of breast cancers don't seem to be hereditary. Up to 80% are the first in their family to get the disease," says Rebecca Sutphen, M.D., director of clinical genetics at the H. Lee Moffitt Cancer Center and Research Institute in Tampa, Florida.

Then there are the approximately 8% of women with breast cancer who can blame mutations in genes called BRCA1 and BRCA2. They have a 36% to 87% chance of developing breast cancer. Because of these high rates, more women are turning to genetic testing to gauge their susceptibility. Deciding whether to pursue that knowledge—and what do once it's attained—is heart wrenching and complicated. The women in these pages share what it's like to live in cancer's shadow.



“Every morning I wonder if today’s the day I’ll find a lump and follow in my mom’s footsteps. Yet the idea of genetic testing still unnerves me.” —LISA WHITAKER, AGE 41, ROANOKE, VA

When Lisa Whitaker’s mammogram showed something suspicious last year, she tried unsuccessfully to push the memories of her mom, who developed breast cancer at age 48 and died at age 62 after a second recurrence, from her mind. “Two of my mom’s aunts also died from breast cancer,” she says. It wasn’t until a biopsy showed that the mass was nothing more than normal fibrous tissue that Lisa relaxed—a little. “I constantly check my breasts for changes or dimpling. That’s how my mom discovered her cancer,” Lisa says.

Lisa’s the mother of two sons, ages 13 and 9, and while breast cancer in men is rare, nearly 20% of males diagnosed with the disease have a family history of it. Men with a BRCA2 mutation have a 6% lifetime risk of breast cancer—about 100 times greater than other men’s risk, plus they may be more prone to prostate cancer. Males also can pass the gene on to their daughters and sons. Lisa is torn about genetic testing. “Part of me wants to know, but another part doesn’t.”

Feelings of anxiety and uncertainty are common among women contemplating genetic testing. “Getting a positive result, even if you fully expect it, turns your world upside-down,” says genetic counselor Rachael Brandt, coordinator of Lankenau and Bryn Mawr Hospitals’ cancer risk assessment and genetics program in Philadelphia. Surprisingly, negative BRCA results can be problematic, too. “Women can experience survivor guilt if they don’t have the gene but their siblings or other relatives do,” says Brandt.

For BRCA-positive women, the re-

sults are just the beginning of an angst-ridden decision-making process. Since not everyone who has a predisposition toward breast cancer gets it, high-risk women have several options including alternating mammograms with MRIs (magnetic resonance imaging), surgical removal of the breasts and ovaries, and/or chemoprevention (the use of medication to prevent cancer). Studies show the chemoprevention drug

tamoxifen can halve a woman’s breast cancer odds by suppressing estrogen’s effects. Unfortunately, women are more prone to blood clots and uterine cancer when they take the drug.

Though she hasn’t committed to genetic testing, Lisa took the first step a few months ago and met with a genetic counselor. “Now that I know more, I don’t feel so scared. I feel empowered,” she says. This response is typical, says Sue Friedman, founder of Facing Our Risk of Cancer Empowered (FORCE), an organization that encourages those affected by hereditary breast and ovarian cancers to meet with an expert in genetics. “Women with a family history tend to be more proactive about their health and future,” she says.



Lisa is hoping she will beat the odds.

Photo: Todd Wright



Facing their fears:
(from left) Jackie,
Lindsay and Jaime.

“With our family’s genetic makeup, it’s not a matter of if we’ll get cancer but when. You start to feel like a walking time bomb.”

—**JAIME ROSCOE, AGE 33**
(SISTER OF JACKIE HARDING,
AGE 31, AND LINDSAY
NEWBURN, AGE 23, ALL OF
INDIANAPOLIS)

Jaime Roscoe and her sisters, Jackie and Lindsay, weren’t terribly surprised when genetic testing confirmed that BRCA was in their blood. Their mom, Sharon Newburn, was just 36 when she first battled breast cancer in 1990. Sixteen years later, when it returned, she learned she carried the BRCA2 gene. “A woman’s risk of developing breast cancer increases with age, which is why most women who get the disease are over 50. A breast cancer diagnosis at a young age is a strong indicator that altered genes

are at work,” says genetic specialist Joanne Armstrong, M.D., assistant professor of obstetrics and gynecology at the Baylor College of Medicine in Houston. Children of BRCA carriers have a 50% chance of inheriting the gene from either parent (yes, dads can pass it along too). It’s like a genetic coin toss—one that these three sisters lost.

For Jaime, a mother of four who was 30 when they were all tested in 2006, and Jackie, then age 28 and a mother of three, the next step was clear. They wanted to be around to meet their grandchildren. They didn’t want to obsess about every perceived breast change. Their goal was to beat cancer before it beat them. So the two sisters decided to have their healthy breasts, ovaries and uteruses surgically removed. The goal of preventive (sometimes called prophylactic) surgeries like these is to remove organs and tissues at risk for cancer before the disease even has a chance to develop.

Cutting out cancer-free body parts may seem drastic, but studies show preventive mastectomies can reduce breast cancer odds by more than 90%. And because breast cancer is fueled by estrogen, removing the body’s main source of it—the ovaries—can reduce breast cancer risk by 50%. Jaime and Jackie viewed surgery as their best

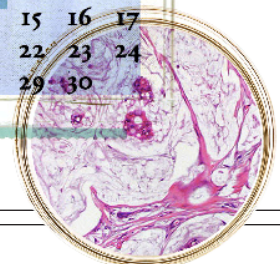
Am I at risk for breast cancer?

In addition to family history and gender, studies suggest that the following uncontrollable factors affect your cancer odds.

- **AGE** Your chances of developing breast cancer go up as you age. A woman in her 30s has a 1-in-233 chance, a woman in her 60s a 1-in-27 chance.
- **RACE AND ETHNICITY** White women are slightly more likely to develop breast cancer, but African-Americans are more likely to die from it because their tumors are more aggressive. BRCA mutations are more common in Eastern European (Ashkenazi) Jewish women.
- **MENSTRUAL HISTORY** Women who got their first periods before age 12 or went through menopause after age 55 are more prone to breast cancer because they’ve had a longer exposure to estrogen and progesterone.
- **BREAST DENSITY** Mammograms have a hard time penetrating dense breasts, which have more glandular and connective tissue. Plus, both dense tissue and tumors appear white on X-rays, making cancer harder to spot.



s	m	t	w	t	f	s
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	



option. “I didn’t feel sorry for myself. I felt fortunate to know we carry the gene, so we could take action to prevent the disease,” says Jackie. Nearly 70% of U.S. previvors (BRCA carriers who don’t have cancer) choose to have their ovaries removed, while 35% opt for preventive mastectomies. “Mom is still battling her cancer, which has spread to her spine. It would have felt selfish to keep my breasts and risk the possibility that my husband and kids might someday watch me suffer a similar fate,” Jaime says.

Jaime’s and Jackie’s decisions to have hysterectomies also came easily since the two considered their families complete. But things weren’t so straightforward for younger sister Lindsay, then a 21-year-old college student. “When I first found out I had the BRCA gene, I felt like I needed to hurry up and get married and have kids,” Lindsay says. “I think about cancer every day. I know I’ll eventually have both surgeries,” says Lindsay, “but I need to wait until the time’s right for me and hope that cancer doesn’t set in before then.”

While preventive surgeries give BRCA carriers a better fighting chance against cancer, they aren’t without risks and repercussions. For starters, most women endure at least two, if not more, surgical procedures. Jaime and Jackie were wheeled into the operating room three times each—once for the mastectomies and hysterectomies, and twice more for breast reconstruction. In addition, putting your body into surgically induced early menopause can create a new set of problems, like hot flashes, depression, mood swings and a diminished sex drive. Hormone replacement therapy helps, but in an ironic twist, it also slightly elevates one’s odds of developing breast cancer. Still, both Jaime and Jackie are happy with their decisions, and know that their experiences will help their younger sister should she make a similar choice someday. “This genetic information may have saved our lives,” Jaime says.

A special bond:
(clockwise from top) Grace, Mary and Liza.



“Your skin color or ethnic background won’t protect you from breast cancer. We’re proof of that. Breast cancer doesn’t discriminate.”

—GRACE TALUSAN, AGE 37 (SISTER OF MARY TALUSAN LACANLALE, AGE 40, AND LIZA TALUSAN, AGE 34, ALL FROM THE BOSTON AREA)

“**M**y mother always said that I should learn from my big sister Mary’s experiences,” says Grace Talusan. This advice took on new urgency in 2006 when Mary was diagnosed with breast cancer just nine months after giving birth to her first child. Because Mary was only 36, doctors suspected and confirmed a hereditary mutation. “No one in my family had heard of a cancer gene,” says Grace, even though her dad’s mother, as well as some aunts and cousins, had bat-

ted breast and ovarian cancers.

It’s common for breast cancer risk to be underestimated in Asian-Americans like the Talusans, who are Filipino. According to a recent study, computer models designed to identify those at risk for hereditary breast cancer fail to predict mutations in almost half of Asian women who have them. At the same time, the number of Asian-Americans developing breast cancer is climbing.

At first Grace resisted testing. “I was in denial,” she says. Even when she finally gave in to her family’s pleas, Grace

Should I get tested?

Having a relative (or even several) with breast cancer doesn't mean you should be analyzed for the mutated genes. Talk to your doctor about being tested if you had breast cancer at age 45 or younger or you have:

- » two first-degree relatives (mom or sister) with ovarian or breast cancer, with one diagnosed before age 50
- » three or more first- or second-degree relatives (grandmother or aunts) diagnosed with breast cancer
- » a first- or second-degree relative with both ovarian and breast cancers
- » a first-degree relative diagnosed with cancer in both breasts
- » a male relative with breast cancer
- » one first- or two second-degree relatives with breast or ovarian cancer and you're of Eastern European (Ashkenazi) Jewish descent

didn't give much thought about how life might change if BRCA was in her DNA. "When I tested positive, I was plunged into an ocean of hurt." Adding to the heartbreak: Grace's younger sister, Liza, also had the gene.

At first Grace opted for the least invasive course of action: increased surveillance via mammograms and MRIs. But after a year of constant follow-up screenings for abnormalities, the relentless worry got to her. "I decided to exchange my cancer-free breasts for an opportunity to cheat fate," she says.

Women with BRCA mutations, particularly BRCA1, also have a higher-than-average risk of developing ovarian cancer, the fourth leading cause of cancer death among women. Ovarian cancer is known as a silent killer because its symptoms—bloating, difficulty eating or feeling full quickly, pelvic or abdominal pain, and a frequent or urgent need to urinate—are easily ignored or dismissed as other ail-

ments. Even with regular blood tests and ultrasounds, it's difficult to detect the disease in its earliest, most treatable stage. As well as lowering breast cancer risk, an oophorectomy (surgical removal of the ovaries) can lower ovarian cancer risk in BRCA1 carriers by as much as 85%.

While none of the Talusan sisters have opted for this surgery yet—Mary recently had her second child, Liza her third, and Grace is contemplating starting a family—they do believe oophorectomies (and a preventive mastectomy for Liza) are probably in their near futures. "These are such difficult decisions to make," says Liza. "Sometimes I feel like an unstoppable teenager who believes *Cancer can't happen to me!* But watching Mary endure cancer treatments has put things in perspective."

Grace admits to going through periods of anger and grief. "But overall, I feel lucky that my sisters and I may have the power to stop the disease."

“Cancer doesn’t care how old you are: My mom and I were both in our 40s when we were diagnosed.” —**CARLA ISRAEL, AGE 48, EAST BRUNSWICK, NJ**

Carla Israel was certain that her mom’s track record with breast cancer (she battled it twice during her 40s), combined with her family’s ethnic background (mutated breast cancer genes are five times more common in descendants of Eastern European Jewish families like Israel’s), meant BRCA was in her family’s DNA. So when her mom’s gene test came back negative last year, Carla, then 47, and her two younger sisters were surprised, but relieved. Nonetheless, Carla continued to be overly cautious. “People didn’t understand why I stuck with a routine I’d started at age 35, alternating mammograms with MRIs every six months.” It may have seemed a little over the top to others, but her

vigilance paid off. Last December an MRI revealed a change in Carla’s left breast tissue. A biopsy revealed 48-year-old Carla had invasive ductal carcinoma (IDC), the most common type of breast cancer. IDC accounts for nearly 70% of all breast cancers, and occurs when cancer cells break through milk-duct walls and invade nearby breast tissue. Carla’s cancer was stage 1, meaning the tumor was small and hadn’t spread outside her breast. In fact the tumor was so small a follow-up mammogram couldn’t detect it. The MRI may have saved her life.

After her lumpectomy, Carla’s attention turned to her relatives. Since there were now two breast cancer survivors in the family, Carla worried the

Carla was free of mutated BRCA genes, but not cancer.



BRCA gene test was wrong. “If this is genetic, then everyone in my family, including my younger sisters, my 14-year-old daughter, and even my 18-year-old son, is in danger,” she says. Two weeks after her breast cancer diagnosis, Carla—like her mother—tested negative for BRCA1 and BRCA2, a fact

that caused more concern than celebration. Because there are so many strong risk factors, there's a good chance Carla and her mom received "false negative" genetic results. In other

words, although they don't have the mutated BRCA1 or BRCA2 gene, another unidentified BRCA gene or a completely different gene alteration is likely causing their family's cancer.

How can I reduce my odds?

Cancer isn't completely out of your control: Smart lifestyle choices play a large role.

● **MAINTAIN A HEALTHY WEIGHT.** Excess fat stimulates the production of estrogen, so the heavier you are (particularly after menopause), the higher your estrogen level and cancer risk.

● **DRINK ALCOHOL IN MODERATION.** Women who have two or more drinks a day (wine, beer or liquor) are significantly more likely to develop breast cancer than women who don't drink any alcohol.

● **BE PHYSICALLY ACTIVE.** A study from the Women's Health Initiative suggests that briskly walking for 1 to 2.5 hours a week cuts a woman's breast cancer risk by nearly 20%. The American Cancer Society recommends getting at least 5 hours of physical activity a week for overall cancer prevention.

● **APPROACH HORMONE THERAPY CAREFULLY.** Combination estrogen and progesterone hormone replacement therapy relieves menopausal symptoms, but using it may elevate breast cancer risk. (See Breast Cancer News, page 103.)

● **RECONSIDER YOUR CONTRACEPTION.** Oral contraceptives may slightly increase a high-risk woman's odds of breast cancer. This risk, though, drops 10 years after you've stopped taking the Pill.

"My family's still vulnerable. We just don't know which gene mutation is to blame," Carla says. A "true negative" reading indicates a woman doesn't carry a known BRCA1 or BRCA2 gene mutation that's already been identified in another family member. Women receiving true negative test results have the same cancer risk as the general population.

About 10% of women who test for breast cancer genes receive ambiguous results, meaning their BRCA1 or BRCA2 genes are altered, but not in a way typically associated with cancer. Ambiguous and false negative readings make decision making about preventive care all the more difficult. "Had I tested BRCA-positive I was prepared to have my ovaries removed, because ovarian cancer, which is very difficult to diagnose and treat, scares me even more than breast cancer," says Carla. "Instead, I'm being diligent about screenings and hoping for the best." ●

BREAST CANCER NEWS AND BREAKTHROUGHS

by Jennifer Gordon

THE GREAT HRT DEBATE

The long-term consequences of hormone replacement therapy (HRT) are still being debated. Many scientists believed that prescribing HRT to treat the symptoms of menopause for up to five years was okay. But a new study analysis indicates that the risk of breast cancer may increase even earlier. Using estrogen plus progesterone appears to double your chance of lobular cancer (which begins in the milk-

producing glands) in only three years. Luckily, soon after you stop the hormones the breast cancer risk rapidly declines. Talk to your doctor about the pros and cons. If you decide to go with HRT, take the lowest effective dose of hormones for as short a time as possible, says Rowan Chlebowski, M.D., a medical oncologist and researcher at the Los Angeles Biomedical Research Institute and lead author of the analysis.



(continued)

{ do-it-yourself }

Try these at-home tips to reduce your chances of developing breast cancer.

THE TOOL	WHY IT WORKS
extra-virgin olive oil	Polyphenol compounds found in extra-virgin olive oil suppress a breast-cancer-promoting gene. Experts recommend using it as your primary kitchen oil.
diet and exercise	Reduced calorie intake and regular exercise may slow tumor growth and lower the amount of leptin—a fat-released protein that has been linked to breast cancer—in the bloodstream.
apples	Phenolics in apples may combat malignant tumors, the main cause of death in breast cancer patients.
vitamin D	Vitamin D prevents cancer cell division and activates a tumor-suppressing protein.

Good for Some, Dangerous for Others

Red wine is sometimes jokingly called “cholesterol medicine” because of its heart-health benefits, but the fact that it raises the risk of breast cancer is no laughing matter. In fact, two glasses of any type of alcohol—wine, beer or liquor—a day increase your chances of developing breast cancer by 24%. Experts recommend all women limit themselves to one drink a day or less.

Beyond the Mammo

Alternating between mammograms and MRIs (magnetic resonance imaging) every six months is potentially lifesaving for women who are at high risk for breast cancer, according to new research from University of Texas M.D. Anderson Cancer Center. In addition, researchers from Dartmouth University in Hanover, New Hampshire, found that MRIs spotted tumors not seen in a mammogram or during an ultrasound in 20% of breast cancer patients.

ADDITIONAL INSURANCE

Both women with early-stage breast cancer (DCIS) and young women with more advanced cancer benefit from radiation. When radiation is done in conjunction with a lumpectomy it decreases the chances of early-stage cancer recurring by 51%. Plus, women under 35 with breast cancer who opt for both a mastectomy and radiation treatment have a better chance of avoiding breast cancer in the future than women who opt for a mastectomy alone.