Every instance of breast cancer is as unique as the person it strikes. Taking an individualized approach to prevention, diagnosis, and treatment can give you the best chance to survive and resume your life. In this special report, N.J.’s top specialists present the latest in breast care — and show you how to work with your doctor to create a strategy for a cancer-free life.

**Triumph over Breast Cancer**

“IT’S BEEN A FABULOUS EDUCATIONAL experience,” says Morris County resident Kate Singer* — a surprising statement given that the “experience” she’s describing is her recent ordeal with breast cancer. Just after her 57th birthday in 2010, a routine mammogram picked up a suspicious mass in her left breast, and a subsequent biopsy confirmed that it was cancer. Few of us expect to get cancer, but for Singer it was particularly shocking. Most of her relatives contended with heart disease, and there was virtually no history of cancer in her family. So she was even more surprised when doctors found a smaller cancerous growth in her right breast and a genetic test revealed that she was carrying an abnormal BRCA1 gene, which heavily predisposes women to the development of breast cancer and typically runs in families.

Her education began during her first meeting with Paul Friedman, DO, director of oncology services at The Carol W. and Julius A. Rippel Breast Center at Morristown Medical Center. He offered her exactly what she needed: reassurance and options. Ultimately, because she knew that carrying the BRCA gene meant there was a good chance the cancer would return, she chose to have a double mastectomy (removal of both breasts) with reconstruction to be done immediately afterward. Friedman then ordered Oncotype DX testing, a relatively new procedure that determines the likelihood of the

*Not her real name
cancer recurring in the breast, lungs, liver, bones, or blood.

This time, Singer got lucky: The test showed a low risk of recurrence, which allowed her to forgo chemotherapy. She was also fortunate that her illness occurred at a time when physicians and researchers are making great strides in the treatment of breast cancer, and patients are being offered more options than ever.

“It’s an exciting time in breast cancer treatment — we’re getting more and more supple at treating each patient individually, offering much more personalized care with fewer side effects,” notes David Pearlstone, MD, chief of breast surgery at Hackensack University Medical Center. If there’s a theme to the story of breast cancer treatment in 2011, it’s that each woman, and each cancer, is unique, and practitioners are increasingly able to tailor treatments to the individual patient. To help you understand how this individualized approach could make a real difference in your life or in the life of someone you love, we’ve assembled some of New Jersey’s foremost experts to bring you up to date on state-of-the-art breast care, from prevention to reconstruction.

PREVENTION
Controlling Your Risks
Prevention efforts are important. We’ve known for some time that obesity, excessive alcohol intake (more than four drinks a week), and inactivity can all increase the risk for breast cancer, and a well-publicized study by the Women’s Health Initiative has shown a definitive link between breast cancer and hormone replacement therapy. Another culprit: smoking. A 2009 panel convened by the University of Toronto looked at the available evidence and concluded that smoking increases breast cancer risk by 27 percent for women who carry a genetic mutation known as NAT2 (found in roughly half of all women in North America). And a 2011 study by the American Society of Clinical Oncology found that women at higher risk for breast cancer who smoked for between 15 and 35 years were 34 percent more likely to get breast cancer than those in the same high-risk group who had never smoked. Now, notes Kathleen Ruddy, MD, founder and president of the nonprofit Breast Health & Healing Foundation in Belleville, there’s good reason to add birth control pills to the list of known risks. Though the Food and Drug Administration is, she says, “equivocal” about the risk posed by the pill, “the World Health Organization looked at all the published literature and came to the conclusion that birth control pills are group-one carcinogens,” meaning they’re known to cause cancer in humans. The WHO report found that women who use birth control pills before a first full-term pregnancy increase their risk for premenopausal breast cancer by approximately 40 percent and categorized the pill as Group I carcinogens, meaning it is known to cause cancer. “Women who go on it as teenagers and stay on it till their 30s may be at increased risk,” says Angela Lanfranchi, MD, co-director of the Sanofi-aventis U.S. Breast Care Program at The Steeplechase Cancer Center at Somerset Medical Center. This is reason enough to carefully weigh risks and benefits (the pill has conversely been linked to lower risks of ovarian and endometrial cancer) when choosing birth control.

Another risk to consider: low blood levels of vitamin D. A 2011 Canadian study found that women who’d spent three hours a day in the sun as teenagers (and

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**Five Signs You Shouldn’t Ignore**

While regular mammograms remain the gold standard for early detection of breast cancer, women should speak with their doctors if they notice any of the breast changes outlined below.

1. **A lump.** “It’s the number one sign of breast cancer,” says Jan Huston, MD, medical director of the Connie Dwyer Breast Center at St. Michael’s Medical Center in Newark. But keep in mind, she advises, that breasts are lumpy by nature. “It’s important to do a self-exam to familiarize yourself with your breasts and how they feel,” says Huston. If you notice a lump that wasn’t there previously, talk to your doctor. Don’t assume, though, that it must be cancer; it could be benign fibrous tissue or a cyst.

2. **A rough area of pink skin with the texture of an orange peel and a fairly sharp border.** It could be a sign of inflammatory carcinoma — but, Huston notes, this is an extremely rare form of breast cancer.

3. **Persistent leaking and crusting of one nipple.** This may be an indication of Paget’s disease, another very rare form of breast cancer. It can sometimes be confused with eczema, which it resembles. Persistent bloody discharge can also be a sign of cancer (though blood in breast milk isn’t uncommon after giving birth).

4. **Breast swelling.** This is a possible indication of inflammatory breast cancer, which is extremely rare.

5. **Inverted nipple.** Most often a sign of duct ectasia, a benign condition in which one of the milk ducts fills with fluid, it can also occur when a very large tumor pulls on the ligaments around the nipple. Given that most breast cancers today are diagnosed when quite small, notes Huston, it’s highly unusual as a sign of cancer.

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Each woman, and each cancer, is unique, and practitioners are increasingly able to tailor treatments to the individual patient.
therefore had higher levels of the so-called “sunshine” vitamin) were half as likely to develop postmenopausal breast cancer as those with low sun exposure. In the lab, vitamin D has been found to slow the reproductive rate of breast cancer cells, which may explain its protective effect. Your doctor can do a blood test to determine if your level is low and let you know whether supplements might be advisable.

If you’re at high risk for breast cancer — a history of the disease among first-degree relatives (mother, sisters, daughters), carrying the BRCA1 or BRCA2 gene mutations, or having had breast cancer in the past — you may significantly lower your risk by taking the anti-estrogen drug tamoxifen. Unfortunately, tamoxifen carries risks of its own, including blood clots and uterine cancer, and many women have shied away from it. Now, however, there might be another pharmaceutical option: Aromasin, an experimental drug that appears to be even more successful at preventing breast cancer than tamoxifen, without the risks of clotting and uterine cancer. Deborah Capko, MD, a surgical oncologist at Memorial Sloan-Kettering Cancer Center in Basking-Ridge, calls the drug “the most exciting form of breast cancer prevention.” A so-called aromatase inhibitor, Aromasin works by suppressing the production of estrogen, which can fuel tumor growth in postmenopausal women. “All of the aromatase inhibitors will cause some degree of joint pain and hot flashes,” Capko says, “yet most side effects were relatively mild.”

Though other risks for breast cancer may not be controllable, knowing about them can help you make more informed decisions about screening. Getting your period before age 12 and having a first full-term pregnancy after age 29, for instance, can increase your risk, while risk decreases with each full-term pregnancy.

**DIAGNOSIS**

**More Choices, Higher Tech**

The one-size-fits-all concept of a yearly mammogram for every woman has given way to a more personalized approach. “Screening should be different for high- and low-risk women, and there’s now a push to really identify who’s at risk,” says Michele Blackwood, MD, director of breast health and disease management at Saint Barnabas Medical Center in Livingston. The first step, says Bonni Guerin, MD, an oncologist at Overlook Medical Center’s Carol G. Simon Cancer Center in Summit, is to use the Gail Model, an online breast cancer risk assessment tool that asks seven simple questions about things like family history and the time of your first full-term pregnancy, then gives you the average risk for a group of women with similar risk factors. “I believe that every woman in the country should be getting a Gail Model at her annual...”
checkup, or doing it herself. And if you're at high risk, you should be talking to your doctor about medications,” Guerin says. (You can take the test online at cancer.gov/berisktool.)

If your doctor confirms that your risk is average, you'll have to consider two conflicting sets of screening guidelines. In 2009, the U.S. Preventive Services Task Force reviewed existing research and suggested that women at average risk start having mammograms at age 50 and repeat the test every two years. However, the American Cancer Society continues to recommend that average-risk women begin screening at 40 and have annual mammograms thereafter. Dana Holwitt, MD, a breast surgeon at the Montclair Breast Center, stresses the benefits of the latter approach. “Breast cancers can develop within a year,” she says. “Yearly mammography saves lives.” That claim is borne out by a Swedish study that showed a 29 percent decrease in breast cancer deaths in women between 40 and 49 who had annual mammograms.

If you're found to be at high risk, your doctor may recommend both an annual mammogram and a yearly breast MRI, since mammograms can miss up to 20 percent of breast cancers in women who don't have symptoms. “MRI was rarely used 10 years ago, but it's now common, and it can find smaller cancers that a mammogram might miss,” says Debra Camal, MD, medical director of the Jacqueline M. Wilentz Comprehensive Breast Center at Monmouth Medical Center in Long Branch. The high-tech arsenal is expanding for high-risk women. Breast specific gamma imaging (BSGI) is a nuclear-medicine test that offers high-resolution views of the breast similar to those of MRI and could be an alternative for women who have dense breast tissue, are claustrophobic, or use a pacemaker. And SonoCiné, a movie-type ultrasound, can find 15 to 20 percent of cancers missed by mammography and may prove a life-saving adjunct to mammography for normal-risk women with particularly dense breasts.

**TREATMENT**

**Tailored to the Patient**

As part of the movement toward more individualized treatment, a growing number of medical facilities are offering navigation services that provide patients with a nurse or team of nurses to help them move through the process, from diagnosis to survivorship. “We guide patients through the health care system, coordinating doctors’ appointments, offering education about testing, answering questions, providing a one-on-one personal experience in a patient’s breast cancer journey,” says Carol Boyer, RN, MSN, clinical program manager at Summit Medical Group’s Breast Cancer Center in Berkeley Heights. A major benefit of navigation, notes Pamela Vlahakis, RN, nurse coordinator at Hunterdon Regional Cancer Center’s Breast Care Program in Flemington, is that “it gives patients a sense of control.” Ironically, the recent proliferation of options in breast cancer treatment can leave patients feeling adrift. “Because there’s no one set approach anymore, patients can be confused about which path to take,” notes Lynn Lutwin, RN, BSN, director of the Breast Cancer Connection at Robert Wood Johnson University Hospital in New Brunswick. “As a navigator, I can provide objective information.”

And there are real choices to be

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**Editors’ picks of fashionable purchases that give proceeds toward breast cancer research.**

made. Decisions about surgery (between lumpectomy and full mastectomy, for instance) and postsurgical treatment (chemotherapy, radiation, hormonal therapy) now depend on multiple factors, including genetic history, type of cancer, and a woman's personal preference. Since a 1990 National Institutes of Health report on surgery and survival rates, we've known that women who have lumpectomies are just as likely to survive as those who choose a full mastectomy. But full mastectomy does have advantages, notably that it decreases the chance of the cancer recurring. In any case, a diagnosis of breast cancer no longer means the certain loss of a breast and, thanks to extraordinary advances in reconstructive techniques such as nipple-sparing mastectomy (see “Building a Better Breast” [directional TK]), breast removal no longer guarantees the loss of a natural-looking silhouette.

Another advance: Breast surgery no longer always necessitates removal of all of the axillary, or underarm, lymph nodes. “Most of our patients are having lumpectomies and only having the sentinel lymph node removed,” notes Capko of Memorial Sloan-Kettering. “If the node is positive for cancer, some women do not benefit from more invasive surgery to prevent a local recurrence.” And some women with early and/or less aggressive breast cancers may no longer require chemotherapy and benefit most with hormonal therapy.

“We’re now able to target specific tumors,” says Susan McManus, MD, a breast surgeon at Saint Peter’s University Hospital in New Brunswick. Using Oncotype DX testing, doctors can determine whether the cancer is likely to recur, and if that potential is low, patients can forgo chemotherapy (other criteria used to calculate the chance of recurrence include lymph node status and tumor size and grade, which are measures of cancer cell abnormality). The good news for patients who do require chemotherapy, says Deena Atieh Graham, MD, an oncologist at Memorial Sloan-Kettering Cancer Center Basking Ridge, is that chemotherapy is no longer “a train that we put you on — we’re constantly evaluating to get you through it with a minimum of side effects.”

If a tumor requires radiation, there are an increasing number of options based on a patient’s personal needs and/or preferences. Most deliver less radiation over a shorter period of time. Memorial Sloan-Kettering, for instance, is conducting patient trials on the effectiveness of a four-week course of radiation, instead of the usual six to seven weeks, a procedure “most people end up finding much more convenient,” notes radiation oncologist Preeti Parhar, MD. Another Sloan-Kettering study involves partial breast radiotherapy, which delivers radiation to only a small section of the breast. Accelerated Partial Breast Irradiation (APBI) is also a form of focused radiotherapy that “sparing the normal nonaffected breast tissue, lung, heart, and chest wall, and decreases treatment time to one week,” notes Clarissa Henson, MD, chief of radiation oncology at the Trinitas Regional Medical Center in Elizabeth. Trinitas is also

Breast Imaging Centers of Excellence

The following facilities in north and central New Jersey have all been cited as a Breast Imaging Center of Excellence by the American College of Radiology.

These centers have demonstrated excellence in breast imaging by successfully achieving accreditation in Mammography, Stereotactic Breast Biopsy, Breast Ultrasound, and Ultrasound-Guided Breast Biopsy. For a complete list of Breast Imaging Centers of Excellence throughout the state, visit accr.org/accreditation and click on “accredited facility search.”

CentraState Medical Center, The Women’s Health Center, Freehold, 732.294.2778
Freehold Radiology Group, 732.462.4844
Jacqueline M. Wilentz Comprehensive Breast Center at Monmouth Medical Center, Long Branch, 732.923.7700
Jersey Shore Imaging, Neptune, 732.988.1234
Memorial Sloan-Kettering Cancer Center, Basking Ridge, 908.542.3000
Morristown Memorial Hospital, Radiology Department, Morristown, 973.971.6602
Radiology Associates of Ridgewood, Waldwick, 201.445.8822
Robert Wood Johnson University Hospital, New Brunswick, 732.253.3298
Saint Barnabas Outpatient Center, Livingston, 973.322.7888
Saint Michael’s Medical Center, Newark, 973.465.2792
Sanofi-aventis U.S. Breast Care Program at The Steeplechase Cancer Center at Somerset Medical Center, Somerville, 908.704.3740
The Betty Torricelli Institute for Breast Care, Hackensack University Medical Center Institute for Breast Care, Hackensack, 201.996.2220
The Breast Center at Overlook Medical Center, Summit, 908.522.5762
The Leslie Simon Breast Care and Cytodiagnosis Center at Englewood Hospital and Medical Center, Englewood, 201.894.3202
The Valley Hospital Breast Center, Ridgewood, 201.447.8422
The Women’s Imaging Center at St. Peter’s University Hospital, New Brunswick, 732.745.6686
University Medical Center at Princeton Breast Health Center, East Windsor, 609.688.2700
University Radiology at Robert Wood Johnson, New Brunswick, 800.758.5545
University Radiology Group, New Brunswick, 800.758.5545
Women’s Health Center at Saint Clare’s Hospital, Dover, 888.808.1234
A diagnosis of breast cancer no longer means the certain loss of a breast, and breast removal no longer guarantees the loss of a natural-looking silhouette.

the first facility in the state to offer Accu-Boost, which uses digital mammography (rather than catheters or other invasive devices) to deliver targeted, high-dose radiation.

Arguably the most exciting advance in breast oncology, say the experts, is prone breast radiation therapy, in which a woman is positioned on her stomach, allowing the breast to fall into a small pocket. Benjamin Rosenbluth, MD, a radiation oncologist at Holy Name Medical Center in Teaneck, notes that the procedure “helps us delineate the line between healthy, underlying tissues” — the heart and lungs, for instance — “and the area needed to be treated.” And MammoSite, a procedure in which a small balloon catheter is placed in the lumpectomy site and a tiny radioactive seed is inserted in the tumor site via catheter twice a day for five days, dramatically reduces the down time associated with traditional radiation therapy.

High-tech advances aside, obtaining knowledge is the best thing any of us can do to lower our risk of developing breast cancer or to make sure that we’re treating it in the most effective way possible. Find out your risk and determine which factors you can control. If you’re diagnosed with breast cancer, put together a list of questions for your doctors or navigation nurse, if you have access to one, and don’t hesitate to ask them. And find out what resources are available in your community. “You get the education and you realize cancer is something you can handle, and that it’s very treatable,” states Kate Singer, who has learned from first-hand experience and says that “knowledge is power.”