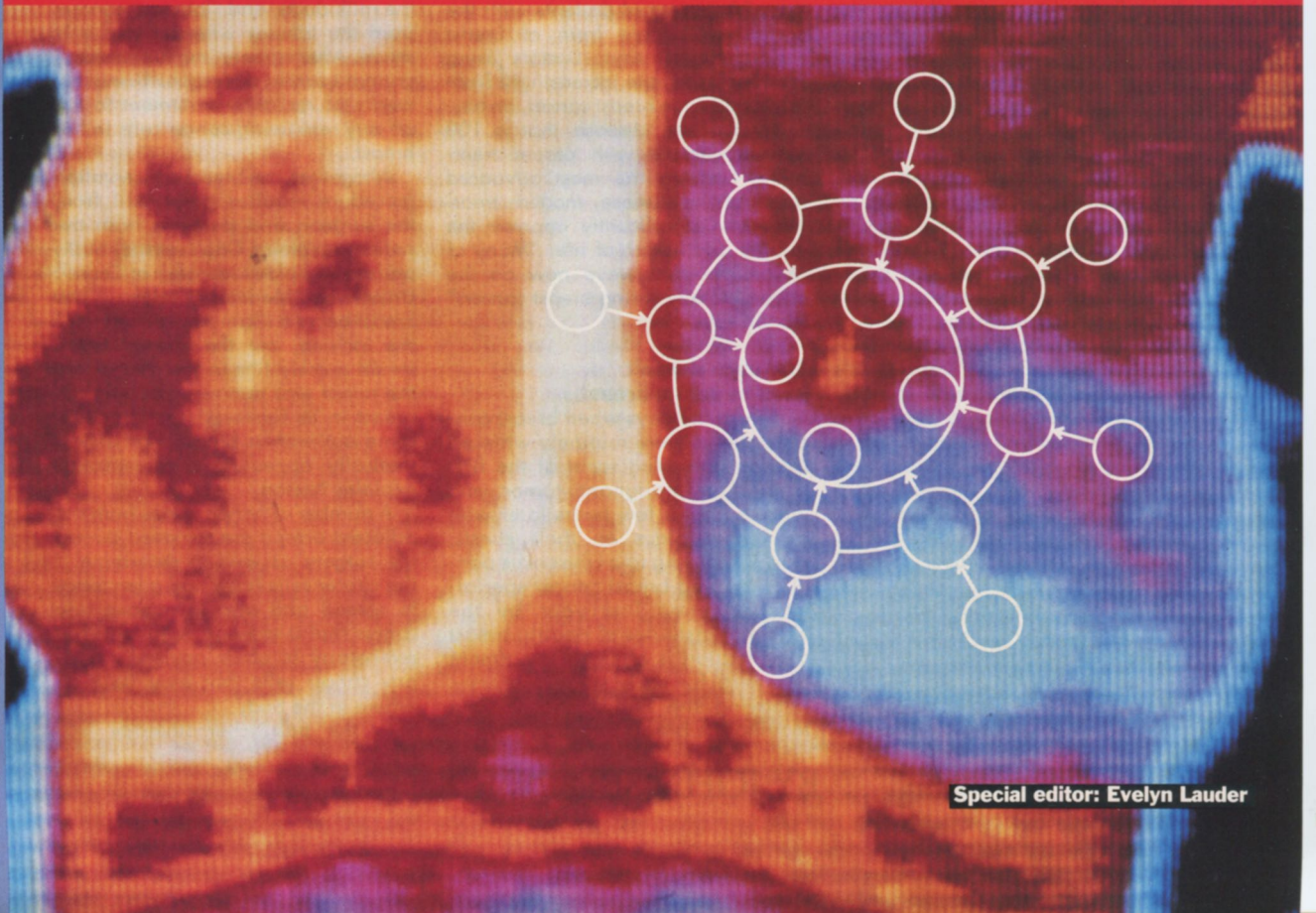


SELF

Breast cancer report

Given the current state of detection and treatment, 'more women should be cured of breast cancer'



The cure

‘Many of us believe that we’re now on the edge of totally curing breast cancer.’

—Larry Norton, M.D.

many women regard breast cancer as their worst medical nightmare, one that invades one of the most emotionally sensitive parts of their bodies. But there is good news emerging from this country’s leading breast cancer clinic. Early detection and improvements in the treatment of the disease are pushing breast cancer survival rates to unprecedented levels and, nearly as important, most patients who would have had mastectomies can now be treated with lumpectomies. For the first time, in short, experts feel they have a handle on this disease.

“People wonder how those of us who treat breast cancer can be so optimistic,” says Larry Norton, M.D., an oncologist specializing in breast cancer at New York City’s Memorial Sloan-Kettering Cancer Center. “It’s because we’re dealing with so many patients we’re going to cure.” Dr. Norton believes that breast cancer is following the historical course of testicular cancer, which turned from a dreaded, nearly unstoppable disease twenty years ago into one that is well managed with proper medical care today.

To be sure, the cold statistics of breast cancer still sound scary. It is the leading cause of death for women in the United States between the ages of thirty-five and fifty; 45,000 women died of it last year; 175,000

will get it this year; and one American woman in nine will be struck by the disease at some point in her life.

But oncologists believe that optimal medical care and universal early detection can substantially improve cure rates. Right now, physicians can cure (meaning remove all traces of the disease for twenty years) more than 90 percent of patients with the earliest detectable form of breast cancer, Norton says. Doctors using mammograms are increasingly finding intraductile breast cancer, an early form of the disease that is 100 percent curable with proper treatment. Even in the most advanced forms of the disease, modern treatment can significantly improve the quality and length of life. “Many of us believe that we’re now on the edge of totally curing breast cancer,” Norton says.

The cure doesn’t have to cost a breast

Gone are the days when breast cancer patients were routinely whisked into an operating room at the first sign of a malignant tumor and wheeled out a few hours later with an empty place on their chests. Now, according to a consensus panel of leading breast cancer specialists convened last year by the National Institutes of Health, breast conservation is often the treatment of choice for early-stage cancers—removing the tumor, that is, but leaving the breast intact.

In this approach, called lumpectomy, the surgeon removes the cancerous lump and a minimum of normal breast tissue around it to ensure that all the tumor cells are removed. In 80 percent of the cases, the lump will be one of two types of breast cancer that differ only in their location: “Ductile” cancers arise from the milk ducts, and “lobular” cancers from the lobules where the milk is made. After surgery, the lumpectomy patient usually undergoes five to six weeks of radiation treatment to kill off any remaining cancer cells in her breast.

Altogether, the breast-conservation procedure requires great skill from the surgeon and patience from the patient, explains Cap Lesesne, M.D., professor of plastic surgery at Cornell University Medical College. The breast bears a slight scar at the site of the incision, but the spongy tissue inside quickly fills in the gap where the tumor was removed, leaving the breast in its former shape. “Patients come out with a breast that is aesthetically appealing and sensate,” explains Norton.

A number of lymph nodes from the adjacent armpit are removed during the surgery as well to determine if the cancer cells have had a tendency to spread and also to remove any cancer that is present. Adjuvant chemotherapy is often advised to kill any cancer cells that may be elsewhere in the body.

In the past, chemotherapy was

BY JOHN SEDGWICK

Right now, physicians can cure more than 90 percent of patients

often thought of as torturous and futile, a last-ditch exercise. This is no longer so. An array of drugs, for example a combination of cyclophosphamide, methotrexate and fluorouracil, better known as CMF, has dramatically improved results. New approaches have reduced the unpleasant side effects of the treatments. In fact, many women have undergone chemotherapy and continued to work nonstop.

According to Norton, 85 to 90 percent of women using CMF never need a wig, and 96 percent never require any hospitalization. "The vast majority of patients," he concludes, "should experience chemotherapy as no more than an inconvenience in their lives." Chemotherapy is also being used before surgery to shrink larger tumors so that they can be removed by lumpectomy.

Hormone therapy is another widely used treatment. Although we are still discovering the causes of breast cancer, naturally occurring female hormones, estrogen and progesterone, can stimulate the growth of some breast cancer cells. By changing the activity of these hormones in the body, doctors have found they can kill cancer cells. One hormone therapy drug, tamoxifen, has been so successful in stopping the growth of new tumors that the National Cancer Institute is currently undertaking a major study to see if it might

also work as a cancer preventative.

Norton says that doctors may soon add another type of anticancer therapy called "biological" therapy to their arsenal. For example, vitamin A derivatives called retinoids have shown an ability to convert cancer cells into normal ones. While biological therapy is being used for patients with advanced cancers, Norton emphasizes that the treatment is still in its experimental phase, as is the use of taxol, a drug derived from the yew tree. In a recent study, taxol showed a remarkable ability to shrink tumors.

Last winter a team of researchers in Strasbourg, France, reported in *Nature* an intriguing theory that breast cancer cells spread by activating what might be thought of as a traitorous gene in neighboring healthy cells. The gene then produces a metalloproteinase enzyme that weakens the healthy tissue surrounding the tumor, allowing the cancer to infiltrate. If that is true, the metalloproteinase enzyme might provide another target for anticancer drugs. But the scenario is still far from being universally accepted.

Evaluating your options

Breast conservation is not possible for every patient. For example, multiple tumors in a single breast cannot be removed with acceptable cosmetic results. However, "if you

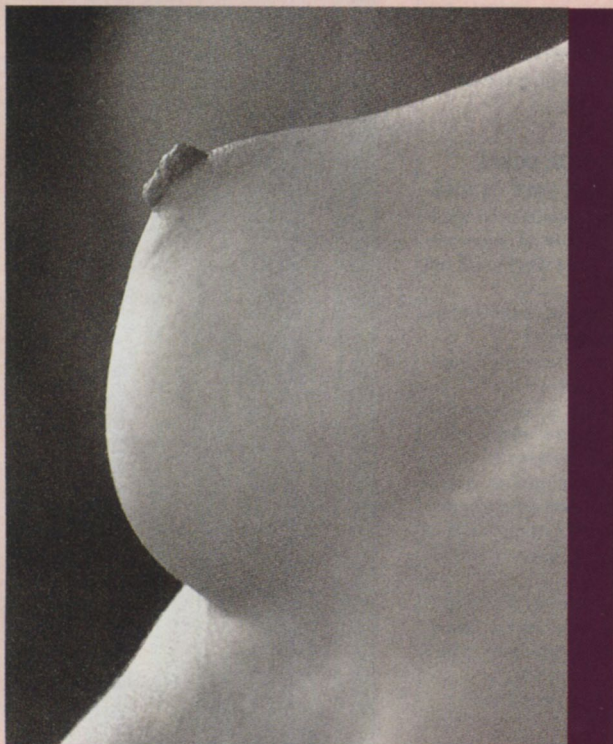
are a candidate for lumpectomy, a mastectomy will not increase your chances of being cured," says Norton. The latest statistics show that the cancer rates after mastectomy are no lower than those after breast conservation.

And finally, many women are still so accustomed to the idea that breast cancer means losing a breast that they simply cannot believe that there might be some other way. "I consider them lost in space," says Michael Moore, M.D., a breast surgeon at Sloan-Kettering. "Maybe they had a relative who had radiation for a completely different disease and died, or maybe they're just cancer-phobic. I feel it's a large part of my job to bring these women back to reality."

The first step in deciding what to do is to find the most competent treatment. There are, unfortunately, great inconsistencies in the quality of care throughout the U.S. Whenever possible, patients should find the closest regional cancer center (see "Where to Call for Help"). These clinics are usually in touch with other larger centers around the country.

Whom do you trust?

When breast conservation is possible, it can make an important difference in a patient's life. Forty-one-year-old Susan Fischer didn't even know that
(continued)



A lumpectomy scar is barely visible, and breast tissue quickly fills in to smooth out the shape



with early-stage breast cancer

SELF

BREAST CANCER REPORT

(continued)

breast conservation was an option when she came to Dr. Moore for a second opinion in the fall of 1988. Her radiologist had found something suspicious on her mammogram two weeks before, turning Fischer "numb" with terror. Her best friend had died of breast cancer just three years earlier.

In Fischer's case, what the mammographer had detected was not a lump—which shows up on an X ray as a white cloud—but a calcification, which looks like a grain of salt and can be a by-product of cancerous activity. It was right in the middle of her breast. Rather than wait for three months to see if it would become a lump, she decided to undergo an immediate biopsy to determine if the calcification was indeed due to cancer. When she awoke from the anesthesia, her surgeon was standing by her bed with the answer. It was cancer. Fischer started to cry.

The surgeon recommended she immediately undergo a modified radical mastectomy to remove her breast but not the underlying muscles. "Isn't your life worth more than your breast?" she remembers him asking. Her insurance policy required a second opinion, though, and she turned to Moore at Sloan-Kettering.

"Have you considered any other options?" Moore asked Fischer. That dumbfounded her—she hadn't imagined she had any. Based on the staff pathologist's examination of her biopsy, Moore declared that she was a perfect candidate for breast conservation. "I was speechless," she says.

She decided to follow Moore's advice and undergo a lumpectomy followed by radiation. She had her husband call her first surgeon to tell him her decision. The surgeon ended up arguing with her husband for an hour, trying to talk him out of it. That got Fischer so confused she had to return to Moore for reassurance that she really was doing the right thing. He in turn referred her to yet another doctor, a radiation oncologist at Sloan-Kettering, Beryl McCormick, M.D., who agreed entirely with Moore's recommended treatment. Fischer concluded that her original doctor simply had not kept up with the medical developments.

The surgery proceeded as scheduled. Moore was able to reach the cancer through the original biopsy incision, to prevent further scarring. He also removed about a dozen lymph nodes, leaving a thin scar

about five inches long across her armpit. Everything went smoothly, and there was no sign that the cancer had spread to her lymph nodes. Because of the size of the tumor and the negative nodes, Moore believed there was no need for any adjuvant treatment like chemotherapy or hormone therapy. "That's when I started to relax," Fischer says.

She began the radiation treatments a month later. "It was a little frightening to see the machine and to hear the big, heavy door shut behind the technician when he left me in there," she says. "But it was okay otherwise." She did develop a kind of sunburn on one spot on her breast, but it was easily treated with a topical cream. Radiation took about half an hour a day, and she did it five days a week for six weeks. "It was wearying, since I was working full-time," she says. "I couldn't have done it any longer than I did. But then, I didn't have to."

Fischer felt a little fearful once the treatment was over and she was out on her own. But now she does her monthly breast self-examinations and she returns every six months for a checkup from Moore, plus an annual mammogram, chest X ray and blood test. She is forty-four now and so far, everything has been fine. "I look at myself in the mirror after I get out of the shower and all I can say is, 'Thank God.'" She went through breast cancer, but she still has her breast—and her life.

John Sedgwick lives in Boston and writes for The Atlantic and GQ.

Seven questions that could save your life—and your breast

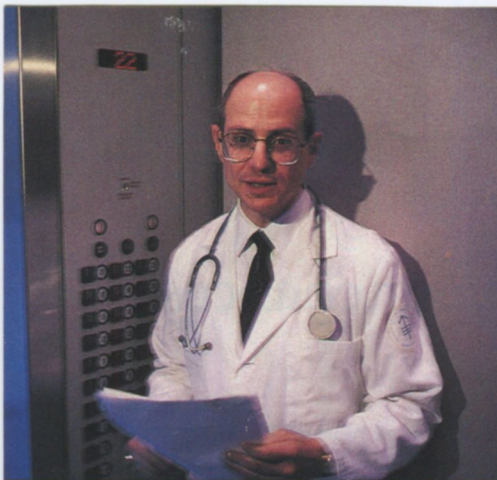
1. How quickly must I decide on a treatment? (The general rule of thumb is that waiting two or three weeks will not affect survival.)
2. Can chemotherapy be used before surgery to shrink the tumor?
3. Am I a candidate for hormonal treatment? What are the side effects?
4. Am I a candidate for a lumpectomy? How many lumpectomies versus mastectomies have you performed?
5. If my cancer is node-negative, would you still recommend adjuvant chemotherapy? (The National Cancer Institute advises all patients to give it serious consideration.)
6. What are the advantages and disadvantages of immediate breast reconstruction? Are silicone implants safe? What about saline implants?
7. May I see pictures of your work?

Biopsies

If there is a suspicious spot—it could be a small lump or a calcification—on the mammogram, a doctor performs a fine needle aspiration to determine whether the lump is a cyst (a fluid-filled sac that's almost always benign) or a solid tumor (which could be benign or malignant). It's usually an in-office procedure, the patient sitting at a mammography machine, her breast positioned on the plate, first to confirm the location of the mass by X ray and then to hold the breast in place so the doctor can guide the needle to the lump.

After a small area of the breast has been anesthetized, the radiologist inserts a hollow needle—it will be either the width of a hairbrush bristle or about the circumference of a pencil lead, depending on the kind of sample the doctor wants—and suctions a sample of cells from the lump into a syringe. If the lump collapses and fluid is withdrawn, it's a cyst. The needle is always inserted parallel to the chest wall and, for most women, the procedure feels very much like having blood drawn—only the initial prick is painful. When the lump doesn't collapse, a biopsy is necessary.

If the suspicious mass is large, a surgeon may skip aspiration and perform an *incisional biopsy* to obtain a more sizable sample of tissue. The procedure is usually performed in the hospital under a local anesthetic. In an *excisional biopsy*, also an in-hospital procedure, the entire lesion is removed surgically. It is different from a full-blown lumpectomy in that the lymph nodes adjacent to the breast are not removed unless a malignancy is confirmed. The tissue is taken immediately to a lab for analysis, and the results may be available in as few as twenty minutes (when the patient opts to have a lumpectomy done immediately) or within four days.



The new all-in-one breast care center

With 565 hospital beds and more than one hundred research laboratories, New York City's Memorial Sloan-Kettering Cancer Center is the largest privately operated cancer treatment facility in the world. And it's one of the finest, too: It was recently voted America's best by doctors polled by *U.S. News & World Report*.

To consolidate its efforts in the diagnosis and treatment of breast cancer, Sloan-Kettering is creating a new state-of-the-art breast cancer center that is scheduled to open by the summer of 1992. The facility will occupy forty thousand square feet, decorated in a homey, apartment-like style. "We want to make the center as de-medical as possible," says Larry Norton, M.D. (above), who will be an attending oncologist at the new center.

The center will combine all the relevant specialists, and medical equipment from mammography scanners to magnetic resonance imaging machines, in one location. "It's really important to gather everything all in one place," explains Dr. Norton, "otherwise, it can be a nightmare for a patient to hunt down all the services she needs." The new center will also provide: on-site psychological and nutritional counseling; an education center to dispense the latest articles, books and videotapes on breast cancer, as well as a beauty consultation program that includes a wig specialist; and a boutique of items to ease the side effects of cancer therapy, such as ultra-soft hairbrushes.

Norton was at Mount Sinai Medical Center for eleven years before coming to Sloan-Kettering nearly three years ago. Plans for the new center played a major role in luring him. "There are other diagnostic centers, but nothing combines diagnosis with treatment the way we're planning to do." —J.S.

Take your

Toxicity and nausea are no longer the

For women with breast cancer, the side effects of treatment were once as frightening as the disease itself. Today, however, new drugs can ease many of these debilitating reactions. Better yet, the duration of the most formidable treatment—chemotherapy—has dropped dramatically, from a twelve-to-eighteen-month regimen just a few years ago to four to six months today. In general, breast cancer patients are able to quickly move on with their lives—in many cases, happily surprised that the reality of medical care didn't conform to their fears.

Radiation

Radiation treatment can be effective in any stage of breast cancer. The treatments are administered every day, usually for six weeks. Sometimes radiation alone can destroy a tumor that can't be reached surgically, but more often it is used on a breast after a lumpectomy as an additional precautionary measure. It can also effectively shrink a tumor or slow the advance of metastatic cancer.

The side effects are relatively innocuous. The most common is fatigue, especially toward the end of treatment, when the effects accumulate. The treatments can also thicken breast tissue and darken skin, producing a sunburnlike appearance that eventually fades. The good news is that radiation technology is more sophisticated than ever before, focusing more sharply on the tumor while minimizing damage to surrounding healthy tissue.

Chemotherapy

After radiation, chemotherapy is the most common postsurgical treatment for breast cancer. A handful of different drugs, administered in combinations, are available today. Doctors typically start out with the maximum dosage recommended for a patient's body mass, then fine-tune treatment to relieve any toxic side effects.

Because the drugs are meant to be toxic, they can wreak havoc on friendly cells as well as cancer cells. Nausea and vomiting can—but do not necessarily—result when the drugs trigger areas of the brain that control nausea. Only 20 percent of the women receiving the most widely prescribed chemo combination—known as CMF, for cyclophosphamide, methotrexate and fluorouracil—report nausea and vomiting. Patients who receive the CAF combination, which contains the powerful drug Adriamycin instead of methotrexate, tend to suffer more serious stomach discomfort. Some doctors choose to prescribe the more toxic CAF in advanced stages of cancer because it is slightly more effective in shrinking tumors quickly.

One of the most valuable developments in cancer care has been a medication called ondansetron. Commercially available since February, it relieves most instances of queasy stomach that other drugs cannot help. Marketed under the name Zofran, the drug intercepts the connection of the neurotransmitter serotonin to receptors in the gastrointestinal tract and the brain, thus breaking the nerve impulse that triggers vomiting. Unlike traditional antiemetics, which produce drowsiness and agitation, Zofran appears to have no major side effects. Currently it is administered in two or three daily intravenous doses. But researchers soon hope to learn whether patients do just as well when receiving the drug once, at the time they get their chemotherapy. With Zofran, and other antiemetics such as Reglan, Compazine and Lorazepam, nausea is no longer a given.

For many breast cancer patients, a more traumatic side effect of chemotherapy is hair loss. This can occur anywhere on the body, including the eyebrows, eyelashes and pubic hair. Patients who go bald don't fully regain their hair until months after treatment ends; when it does grow back, it may have a different texture.

NEIL SELKIRK

BY MADELINE DREXLER

A lump that a woman can feel in her