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DATING

Nine Survivors Step Out

# MAMM

WOMEN, CANCER AND COMMUNITY



## THE Exercise REVOLUTION

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By Pamela Weintraub

# The Breast Cancer Workout

From  
pumping  
iron to  
Pilates,  
survivors  
ride the  
wave of  
an  
exercise  
revolution



**F**or years breast cancer patients were told to take it easy. Even as cardiac and stroke patients rehabbed their way back to health, breast cancer survivors were warned that too much exercise and exertion might cause the painful arm-swelling called lymphedema or, in a worst case scenario, disability for life.

What a difference a few years have made. In May 2005 a large-scale study out of Harvard showed that physical activity following treatment boosted breast cancer survival. Moderate exercise, like brisk walking three to five hours a week, cut the risk of dying from breast cancer in half, researchers said in the *Journal of the American Medical Association*. But any amount of exercise, even walking as little as an hour a week, significantly boosted the chances of surviving the disease. The icing on the cake came in February 2007, when the *British Medical Journal* extended the findings to quality of life. In news that rang around the world, experts from Strathclyde University in Glasgow, Scotland, found that survivors who exercised not only had the ability to walk farther with far better mobility, but also sustained superior mood.

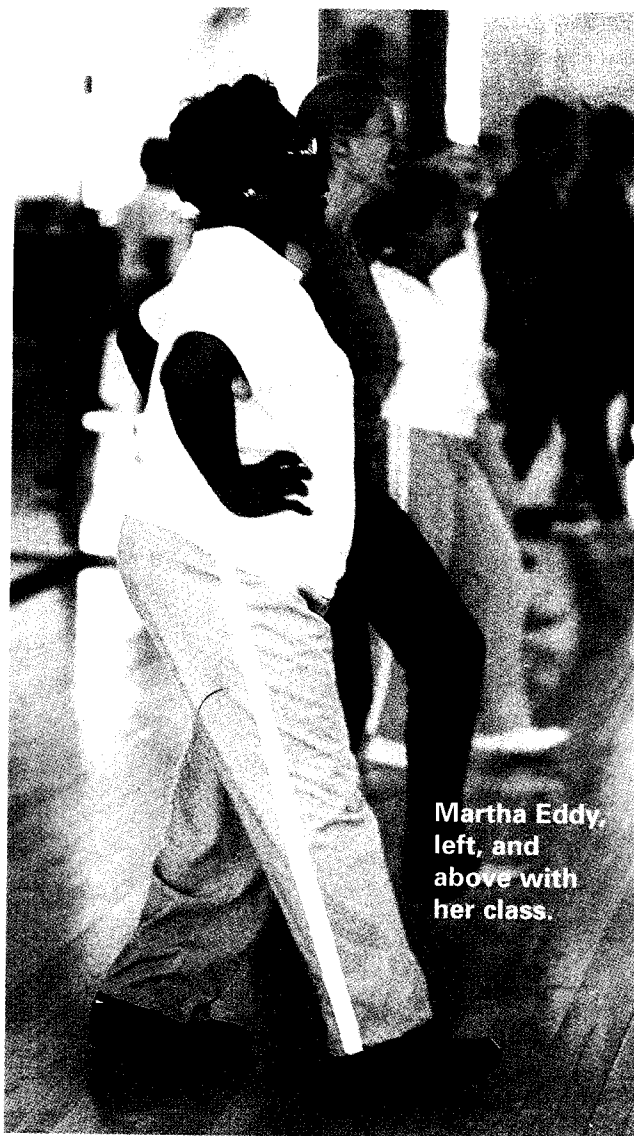
With proof that exercise aids physical and emotional well-being, conferring survival advantages to boot, a quiet revolution is under way. From aerobic dance and yoga to weight training and Pilates, gentle, restorative techniques now help survivors journey back to health. Below we profile four notable programs and techniques at the vanguard of the new movement in survivor fitness and health.

## MOVING ON AEROBICS: DANCE FOR SURVIVORS

### NEW YORK CITY

Following her surgery for breast cancer, New York psychologist Allison Rosen needed to get back to work, but fatigue and depression were getting the better of her. Spending her days on the couch, she found the only thing that could lift her energy or motivate her to move was music. So she did some investigating and found a large body of research connecting music and mood. Inspired, she spoke to friends, who ultimately helped her reach Martha Eddy, a Ph.D. movement scientist specializing in recovery from illness. Eddy had found there were no programs combining music and exercise for breast cancer patients and decided to design one of her own.

The result: the innovative dance exercise program called Moving On Aerobics, sponsored by St. Lukes Roosevelt, Beth Israel, and St. Vincent hospitals in New York City, with classes available at Gilda's Club and other venues as well. The gentle rehab program set to music by Eddy is designed to lift mood, strengthen the cardiovascular system, restore range of motion and energy, cleanse toxins and alleviate pain in joints. But the



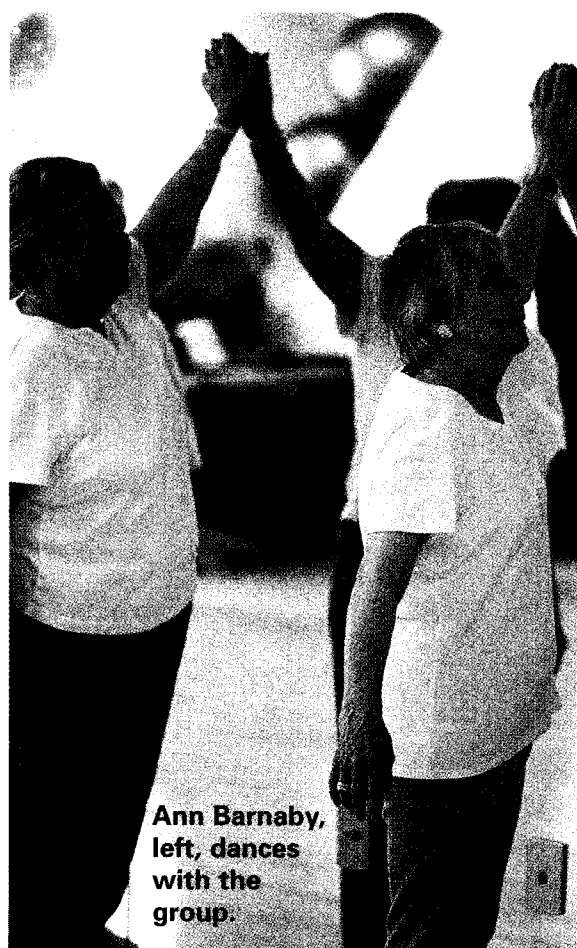
Martha Eddy, left, and above with her class.

**Ann Barnaby, 84, New York City, diagnosed with stage I breast cancer in 1990.**

**Treatment included lumpectomy and six weeks of radiation.**

**Exercise program: Moving On Aerobics in Manhattan.**

*The physical benefit of Moving On Aerobics exercise is great. It relieves the stiffness and pain caused by my lymph node removal. It also keeps us fit and healthy. Emotionally, meeting women who have been through the same ordeal is of great comfort—to be able to exchange our feelings about what we have all been through...being violated by cancer. I have made wonderful friends in the group.*



**Ann Barnaby, left, dances with the group.**

first step for patients is psychological: Eddy has them slow down and notice the way their breath moves in and out of their lungs and through their body so that they can get in touch with their physical selves. "I have them touch the rib cage so that they can feel where the breath is coming from. This promotes body awareness," Eddy says.

After patients acclimate, they learn a series of gentle movements that exercise key areas, including the arm, shoulder and rib cage, where range of motion has been limited by surgery or radiation. Using a variety of musical styles, from African and reggae to Motown and disco to country, Eddy leads patients through stretches and teaches them to swing, sway, arch and contract. She avoids damaging larger, overused muscles by working with smaller muscle groups first, generally through a series of three-dimensional movements, including spirals. For instance, patients will exercise rotator cuff muscles surrounding the upper arm bone before they exercise the larger, often-overworked trapezius, pectoralis and deltoid muscles. Even if these muscles are not affected by the incision, they are often taxed when women attempt to compensate for weaknesses caused by surgery, Eddy explains. "Using this technique," she says, "we help them recover more gradually, but in a more enduring way."

Every aspect of the workout has a purpose strategically planned by Eddy, based on the research she has done. During aerobic training Eddy incrementally increases the tempo of the music; soft and lilting rhythms might give way to rock as the patient becomes stronger and more fit. The workout stimulates the lymphatic system and helps prevent lymphedema by having patients contract their bodies as they inhale—a method that research shows gets the lymph fluid moving, Eddy says. Joint pain can be relieved through dance movements that include loose shaking-out. "We do that as an accent, one of the moves within the dance," she explains.

The music is especially effective in tapping the mind-body connection to improve mood. For instance, quiet warm-up music helps patients relax. Lifting the chest and breastbone to an upbeat rhythm can bring a sense of elation. "We need to be gentle," says Eddy, but one part of the workout involves "keeping patients rocking as long as it doesn't hurt."

**The advantage of aerobic dance:** The music is uplifting and enhances mood.

What breast cancer patients should seek in a dance aerobics class: An instructor who is expert in adapting movement to whatever degree of discomfort they may be going through.

## RESTORATIVE YOGA

### PALO ALTO, CALIFORNIA

The year before Holly Gautier, R.N., began directing supportive care at the Stanford Cancer Center in 2000, the hospital had offered a yoga class for breast cancer patients. Participants had to sign up in advance for the six scheduled sessions. But the patients, many still on chemotherapy or just out of surgery, had trouble getting to every class. And when they did, the techniques themselves were intimidating for beginners under so much physical and psychological stress. "It was a disaster," Gautier recalls.

After Stanford hired her, she investigated exercise programs for breast cancer patients, and found that one of the best was yoga, but a type of yoga different from what the hospital had offered. Restorative yoga, she learned, is the gentlest, least demanding form of the technique, yet still provides the exercise cancer patients need to control blood pressure, body temperature and heart rate while restoring cardiac health, flexibility and strength. Based on a series of yoga postures, breath work and meditation, the system is so gentle that it can be used with patients too sick and fatigued for ordinary yoga or other exercise techniques. The key is support for the patient's body at every juncture. Exercises are done on a mat or, with patients who have more advanced disease, using supportive props like bolsters or chairs.

Working with the gentle yoga positions and props, Gautier helps participants move the spine forward, backward and sideways. Twists are added until range of motion begins to come back. Strength is built when students, at rest in a particular position, contract and release various muscle groups like the triceps and biceps, each in turn.

An important part of the program, says Gautier, consists of relaxation through deep breathing and evocation of soothing images or ideas like the beach at sunset or a warm, luxurious bath. Not only does the training relieve pain and help patients rehab, it also allows them to connect with one another and make new friends. "We have a teapot outside the class, and

**Nancy Tammi, 48, Verona, New Jersey, diagnosed with stage II breast cancer in 2005.**

**Treatment included lumpectomy, chemotherapy and radiation.**

**Exercise program: Participates in Pink Ribbon Program in Fairfield, New Jersey, and rides a bicycle several times each week.**

*The Pilates program has actually been good because I'm regaining a full range of movement. I understand now that if I'm a little sore, it's because of the exercise, not because the cancer's back. In the beginning, you panic whenever you feel something. Now I'm starting to look at my body like a normal person again. You work out during the day and you feel something later, that's normal. I used to be like that, but then you have breast cancer come into your life, and for a while it really changes the way you look at even normal feelings. You start worrying. People absolutely panic when something hurts. Most of the time, it's nothing. In working out more but doing it with guidance, I found it's been good not just for my body but also for my confidence because I feel like I've rejoined the world of normal people. My brain isn't in the cancer world like it used to be.*

everyone talks. It's a place for them to help each other," Gautier says.

Because restorative yoga is appropriate for students at every level, patients may join at any time. Done largely from mats on the floor, the technique provides support for backs and arms during exercise.

Restorative yoga works so well for the patients, emphasizes Gautier, precisely because it's a nonathletic approach that uses gravity and relaxation to add strength. "The patients feel safe, even postsurgery" and are able to progress through the workout with relatively little pain or fear. Despite the gentleness, the system works the body's core muscles and starts to bring back range of motion and flexibility soon after patients begin.

The success of the Stanford program, now available through the Avalon Yoga Studio in Palo Alto, makes sense. Researchers at the University of Texas M.D. Anderson Cancer Center recently studied 61 breast

**Diane Miller, 54, New York City, diagnosed with stage II breast cancer in 2004.**

**Treatment included lymphectomy, mastectomy and reconstruction of the right breast.**

**Exercise program: regular sessions with personal trainer for fitness and weight lifting at the Integrative Medicine Service, Memorial Sloan-Kettering, in Manhattan.**

*Please make it clear that I'm not a weight lifter but just an ordinary woman who has always stayed in shape. I began looking for a way to work out right after my diagnosis and before I had any surgery: I wanted to be prepared. But no one knew what to tell me, and I found that exercise classes for survivors*

*were so mild, I was able to attain that level while I was still in the recovery phase shortly after treatment. For fitness I felt I needed more, but doctors warned against it. I ignored them. I knew other women with frozen shoulders and pain, and I certainly didn't want to be one of them. Then I found the Integrative Medicine Service at Sloan-Kettering. Now I see a personal trainer every two weeks to make sure the exercises I'm doing are*

*modified to my needs. I alternate days—yoga one day and weight lifting the next. I've built up over two years. I was lifting light weights in recovery, and today I can lift a 12- to 15-pound bar and put it back. What does this contribute to my quality of life? A sense of empowerment, a sense of progress, the knowledge that I am not at the mercy of this disease.*



cancer patients undergoing radiation. Some were placed in yoga class during the treatment and others were offered yoga only after treatment came to an end. After just a single week the patients involved in yoga during treatment had better physical function, including range of motion, and reported a better level of general health than those not given yoga until later on.

**The advantage of restorative yoga:** It is exquisitely gentle and works not just on physical rehabilitation but also relaxation.

**What breast cancer patients should seek in a yoga class:** A mat-based program with a focus on rehabilitation and a commitment to progressing slowly.

## **PINK RIBBON PROGRAM: PILATES AND THE POSTOPERATIVE WORKOUT**

### **FAIRFIELD, NEW JERSEY**

Think gentle exercise, and the system known as Pilates comes to mind. Based on stretching, flexing and focused breathing, the technique has long been popular among dancers and hit a wave as baby boomers sought gentler ways of working out. What could be more perfect for patients recovering from breast cancer than Pilates, the famous system known for letting people get in shape without even breaking a sweat? Yet even a method as gentle as Pilates had to be modified for patients following surgery and radiation.

Stepping up to the plate was Doreen Puglisi, a New Jersey exercise physiologist specializing in medical rehabilitation who happened to have breast cancer herself. When she left the hospital in June 2004, she was shocked to find that medical professionals involved in her care did not even suggest rehabilitation, despite the range of motion problems and general weakness the treatment had caused. Instead of rehab, Puglisi was offered a sheet of paper with three simple exercises and sent on her way. "I needed physical therapy and rehab after that, but nothing was in place for me," Puglisi says.

Tapping her own background, she realized that Pilates, if altered to accommodate the patients, would be ideal. Using only mats and a series of modified Pilates exercises that employed the body itself

**Doreen  
Puglisi**



for resistance, Puglisi created a gentle three-phase program: First patients would regain range of motion in the arm affected by surgery. Then they would work on improving movement and mobility throughout the body. Finally, picking up steam in the last phase of the program, they would regain their strength.

Each phase takes two to four weeks, so that three months out, patients are in far better shape, Puglisi says. Right after surgery, sessions last just 30 minutes, giving patients a chance to regain their strength before more extensive workouts, often involving the arms, legs and torso, are carried out. "Trying to get your range of motion back, even with this gentle approach, can be painful," Puglisi says. "We are very sensitive to each patient's unique needs."

In fact, altering the program for each individual is what makes the system a success. "Before starting, we do a full medical assessment. Has there been surgery, radiation, chemotherapy? What about reconstruction? Each situation requires we modify the program more." One woman, for instance, had TRAM flap reconstructive surgery using her abdominal muscle to replace the affected breast. "The stomach muscle was gone," says Puglisi, "so there were some things the woman could not do."

As far as Puglisi is concerned, "women must be proactive about their recovery. They must request a prescription for physical therapy and have an exercise program with a rehabilitation specialist lined up after that."

Puglisi's program is offered at her studio, the Pilates Center Ltd., in Fairfield, New Jersey, at Pilates on Fifth in Manhattan, and through 75 instructors

## **RULES OF ENGAGEMENT**

Before choosing an exercise class, make sure the instructor:

- Can adapt movement to whatever degree of discomfort patients may be experiencing.
- Has been well trained to recognize lymphedema.
- Makes medical monitoring part of the program (if the instructor does not take a detailed medical history before you hit the mat, the program isn't for you).
- Is committed to progressing slowly.
- Understands the importance of relaxation as well as rehabilitation.

As you prepare to join in and then embark upon a program, be sure to:

- Get a recommendation from a health care professional or another patient.
- Request evidence, in the form of a certificate or degree, that the instructor has been medically trained.
- Trust your feelings and sensations—if you seem to be pushing too hard, just pause and then progress at a more comfortable pace.
- Discuss concerns or questions with the instructor as soon as they arise.
- Remember that your level of training and fitness before breast cancer treatment will determine, in part, how quickly you regain movement and strength later. If you weren't fit before, just be patient—it may take more time for you than the runner on the mat next to you, but hang in there.
- Remember that a little exercise is far better than none. Do what you can.

nationwide who have certification in her Pink Ribbon Program technique.

**The advantage of Pilates:** A three-month program should help restore range of motion, functionality and strength.

**What breast cancer patients should seek in a Pilates program:** An instructor who has been trained to work with breast cancer patients and takes a detailed medical history before letting you hit the mat.

## PUMPING IRON

### PHILADELPHIA AND NEW YORK CITY

Of all the workout techniques for breast cancer, the one that has given surgeons the most pause is weight training. For years, postsurgery patients who had lifted a child or climbed to the attic to move boxes would develop extreme new pain in the shoulder or the swelling of lymphedema in an arm. Hoping to avoid such complications, surgeons told survivors they could lift no more than five pounds; then they raised the limit to eight pounds.

Imagine physicians' surprise, therefore, when exercise physiologist Kathryn Schmitz and colleagues at the University of Minnesota found that, with rare exceptions, breast cancer patients could be trained to lift as much weight as anyone else—and that the workouts improved their strength and quality of life.

To do her study, Schmitz recruited 85 breast cancer survivors (average age of 52) from Minneapolis-St. Paul and had half of them lift weights under the guidance of a personal trainer twice a week for six months. Other than this, both groups followed the same diet and exercise programs they'd used before. At the end of the study period, quality of life was somewhat improved for the weight lifters, but when it came to direct payoff in the form of strength, endurance and even weight loss, the advantages for weight lifters soared.

Schmitz's article, published in the *Journal of Clinical*

*Oncology* in May 2006, has set a new agenda because it relieves surgeons' major fear: risk of lymphedema. At the end of the six-month period, says Schmitz, who has since moved her lab to the University of Pennsylvania, only one woman had a worsening of lymphedema—and she was part of the control group that did no weight training at all.

The findings have encouraged fitness trainers nationwide. Schmitz, while working on a second, larger study, is training fitness experts at YMCAs throughout Philadelphia and south New Jersey. And in New York City, the Integrative Medicine Service of Memorial Sloan-Kettering Cancer Center has begun integrating weight lifting into ordinary exercise routines.

"We start the patients with one-pound weights, and they work up slowly, a pound at a time, over weeks," says Donna Wilson, R.N., fitness coordinator for Memorial Sloan-Kettering. Slowly, they gain strength. As for the dreaded risk of lymphedema, Wilson says she has found that pumping iron actually reduces it. "It helps to pump the fluid away, to where it should really flow."

Schmitz adds that careful medical monitoring, including consistent arm measurement, can give patients plenty of advance warning should weight training or any other exercise cause lymphedema to develop. The point is to add weight lifting to an exercise regimen slowly, under medical supervision. Says Schmitz, "Just like you wouldn't tell someone who had a heart attack to run the marathon, you wouldn't tell a woman right out of breast surgery to lift a hundred pounds, but in both cases there is a middle ground."



**The advantage of weight lifting:** Strength, endurance and weight loss; the return of normal abilities in areas from carrying groceries to playing with your kids.

**What breast cancer patients should seek in a weight-lifting program:** An instructor trained in recognizing lymphedema, and careful medical monitoring to start. ❄