

# return to health

integrating pilates into a rehab program is often the missing piece of the puzzle

BY KATY KOONTZ

About 18 years ago, as a newly minted physical therapist, Brent Anderson was growing frustrated. “I would spend so much time with patients, focusing on their injuries,” he says. “And then other patients would do Pilates with a trainer who was clueless about the intricacies of a shoulder girdle. But they’d have better results than my patients would.”

So Anderson, with a PhD in sociology, started looking into Pilates. Today he’s also the president of Polestar Education, a Pilates-based rehabilitation, fitness and training institute in Miami.

“When I first started, dancers used Pilates for rehab,” says Anderson. “I never thought I’d use it for hip-replacement patients. But in 1990 I started noticing that it worked well for other people too. By 1992 I was teaching Pilates to physical therapists [PTs] in hospitals. I realized that when you treat the whole body and you look at things

like the quality of movement, integration and coordination as Pilates does, rather than just addressing the strength of this muscle or the mobility of that joint, you are more likely to have a successful outcome.”

Using Pilates for rehabilitation is certainly not new. Joseph Pilates designed his exercises and equipment during World War I to help bedridden English soldiers regain movement. When he set up his first studio, in New York, some of his early clients were dancers from the New York City Ballet.

And while dancers and athletes have been successfully using Pilates for rehab for decades, mainstream physical therapy is finally catching on to the idea that Pilates can be an effective tool for just about any kind of physical rehabilitation.

## a holistic view

“Pilates goes a step beyond traditional physical therapy since it reeducates clients about their entire body and how it should move and react to everyday stresses,” says Howard Sichel, DC,



Special thanks to Tom Gesimondo and John Degenstein of True Pilates New York (East).

PHOTOGRAPHED BY ARTHUR COHEN AT TRUE PILATES EAST (TRUEPILATESNYCOM)



Instructor Matt McCullough helps Lori Leshner recover from recent hip-replacement surgery.

president of New York-based Power Pilates. "Pilates rebalances the whole body by strengthening from the core out," he explains. "The stronger you are in your core, the more balanced you are and the less stress you put on your joints. That means you can recuperate faster."

A knowledgeable instructor can

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also track down the source of bad postural habits, which can contribute to weaknesses and lead to injury. A hip problem, for example, might be exacerbated by the stress from a lower-back problem, which might in turn be affected by a foot or an ankle problem, and so on. By learning how your body feels and how it moves when it's properly aligned, you stop putting unnatural stress on your joints, so they all work together in a more fluid, more efficient and less painful manner.

Pilates' whole-body focus is vital, notes orthopedic surgeon James G. Garrick, MD, director of the Center for Sports Medicine at Saint Francis Memorial Hospital in San Francisco. Garrick is one of the first doctors in the country to use Pilates for rehab, starting around 1984.

"All too often we concentrate on strengthening the muscles that control the knee or the hip, and therapy stops there," says Garrick, who is also a medical adviser to the National Football League, the U.S. Olympic Figure Skating Team and the San Francisco Ballet. "But we are learning that if you have been limping for a month because your knee hurts, you'll

have developed other changes to compensate. Physicians are becoming more concerned with parts of the body other than just the joint that brings the patient in."

"Pilates employs the exact opposite philosophy of physical therapy," adds Juliet Harvey, owner of Beacon Pilates in upstate NY, and a certified

Pilates instructor. "If you have a shoulder injury, a physical therapist will focus on your shoulder. But with Pilates, if your shoulder is weak, then you work on everything else so that all the other healthy areas of your body can get stronger and support your shoulder. Once you start moving, your shoulder starts feeling better. Joe Pilates was revolutionary in his thinking."

Brent Anderson estimates that 15 to 20 percent of physical ther-

apists currently incorporate some part of Pilates in their practice. "A good 75 percent of them have at least heard of it," he says. "In our centers, a PT might see a patient for two to four visits. Then they start working with a trainer in a post-rehab center for a couple of months. Then they go into a wellness program with group classes, and eventually they move to more advanced movement. It's not just a therapy. It's a lifestyle change."

That's what happened to Beth Kaplanek of Long Island, NY. In 1999 Kaplanek's physician told her that she had hip dysplasia and would need to have her right hip replaced. She'd probably need to have the left hip done down the road, he added.

"I thought someone had signed my death sentence," the 54-year-old remembers. In addition to being a registered nurse, Kaplanek was a fitness instructor, teaching five to eight classes a week. She was also a competitive equestrian. "To think that I might not be able to do so many of the things I loved anymore was heart-wrenching," she says.

After undergoing the surgery, she had traditional physical therapy in the hospital, and then a





physical therapist went to her home twice—“just to make sure I was doing things correctly,” she says. That was the extent of it. Looking for a safe, low-impact way to exercise, Kaplanek found a Pilates mat class at her gym and soon was taking regular mat and apparatus classes.

Six months after starting Pilates, she went to see her surgeon for a follow-up. “He was impressed because I didn’t have pain in my left hip anymore. Then he took an X-ray and said, ‘Your replacement looks perfect, and your left hip looks better. Keep up what you’re doing and maybe you won’t need the other replacement.’”

Kaplanek was so wowed, she became a Pilates instructor herself and is currently writing a teaching manual for Pilates instructors, physical therapists and doctors who work with knee and hip problems. “I still don’t have any pain in my left hip,” she says today, “and my range of motion is much better.”

### preventive measures

Currently no published studies exist on the use of Pilates in rehab, says Brett Levine, MD, of Midwest Orthopedic Center in Peoria, IL, but several are in the works. “It’s early research, but it’s promising,” he adds.

“Pilates is an excellent form of post-operative rehabilitation.”

Levine and William Jaffe, MD, chief of surgery for the NYU Hospital for Joint Diseases, cowrote a research paper on their clinical observations using Pilates both pre- and post-operatively in total joint replacements. The as-yet-unpublished article notes that the doctors’ personal experience using Pilates for rehab has been successful.

More interesting, however, is their finding that doing Pilates *before* surgery is valuable for speeding post-surgery recuperation, since it can build up strength and mobility. “Knee replacements, for example, tend to throw people off balance,” says Levine. “But Pilates can give patients a sense of balance and inner strength that will help them after surgery. Having that good base of core strength is an excellent way to start.”

Just ask Monica Blake of Pasadena, CA. Now 55, Blake had been told at age 24 that her rheumatoid arthritis would eventually land her in a wheelchair. In 1986, when she was in her 30s, she had her left knee replaced and underwent rehab. “It took me six to eight weeks of rehab to feel as though the surgery had been worth it,” she notes.

In 1995, on the recommendation of a chiropractor, she began doing Pilates. Then in 2001 her replacement had reached the end of its useful life and had to be redone—plus her right knee needed replacing. She had both surgeries in the same year, a daunting undertaking. But because of the strength and balance she had acquired from six years of Pilates, her recovery was different this time.

“I went into those surgeries with a changed body,” she says. “I was in the best condition of my life, so my rehab was unbelievable. I was up and off my

crutches and cane within a week—and I was 15 years older! The doctor was so amazed, he called the surgical team into the office to observe and said, ‘I’m going to recommend Pilates to all my patients.’”

Blake still needed physical therapy but was able to resume movement sooner than she was the first time. “I went back to Pilates within two weeks,” she says, “doing gentle, customized exercises that allowed me to build up to my regular routine gradually.”

The Pilates conditioning had strengthened the muscles that supported her knee joints and made the joint itself more flexible. “My new joint had a strong and flexible muscle



[system] to be housed in,” she says, “so it worked much better than if it had been placed in the more weakened, atrophied muscle [system] that replacement patients typically have. Because their joints hurt, they don’t move them as much. And because my core was strong, my ability to lift and use my arms and legs was greatly improved.”

### the role of equipment

One of the reasons Pilates can come in on specific types of rehab is the wide adaptability of Pilates apparatus.

Anderson notes that a therapist can use at least a thousand different exercise variations on the many diverse pieces of equipment.

Elizabeth Larkam, director of Pilates & Beyond in San Francisco, agrees. “The Pilates apparatus provides a creative environment,” says Larkam, who focused on training and injury treatment and prevention for 15 years as a Pilates dance medicine specialist at the Center for Sports Medicine at Saint Francis Memorial Hospital. “A skilled practitioner can easily configure the equipment to

making it easier for users to get on them. Wunda Chairs often have split pedals so that they can be adjusted for each foot or leg.

When Larkam worked with a dancer for the San Francisco Ballet who had a stress fracture in her ankle, the dancer couldn't put any weight on her right foot while it healed. “But we could work around the injury,” says Larkam. “She could still do work lying on her back, on her front, toning arms, abdominals and her whole left side. And we could use a



equipment so precisely that clients can get moving again without putting stress on anything that hurts. When they perceive that they are moving again but without pain, it changes the movement-equals-pain paradigm for them. And the positive mental attitude that results can shorten the healing process.”

### positive, pain-free therapy

The idea that clients are training themselves to move their bodies in a pain-free way rather than coming in for treatment gives them a tremendous psychological boost. It puts them in control of their bodies.

Kathy Schneider, 47, of Brunswick, NY, had been taking private Pilates lessons twice a week when she received a breast cancer diagnosis. In addition to having a lumpectomy, radiation and chemotherapy, Schneider had the lymph nodes under her right arm removed. She had a total five surgeries, underwent physical therapy and eventually returned to Pilates. But her busy life as the mother of three small boys intervened, and she stopped going to the studio.

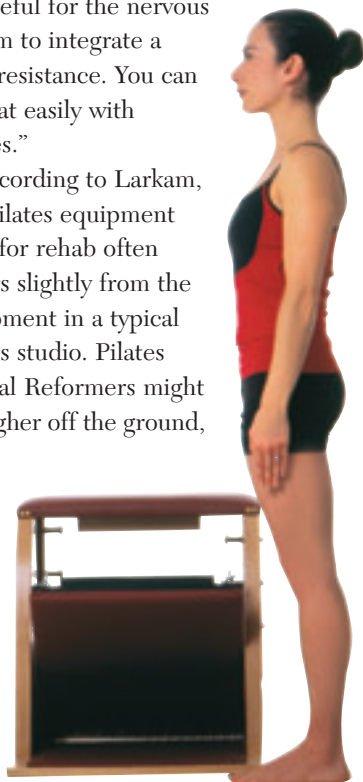
“My chest was tender, and although I wasn't aware of it at the time, I favored my whole right side,” she recalls. “I didn't want to use my arm or even to lift it.” A year later she was left with a frozen shoulder, a condition that causes stiffness and severe restriction of movement and pain.

Her doctor recommended physical therapy, and Schneider resumed her twice-weekly Pilates sessions with Nuhar Jaleel, who owns the Pilates Principle in Latham, NY, and is a licensed physical therapist. Eager to

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give just the right resistance for all different stages of rehab,” she says. “As the body mends, for instance, it's useful for the nervous system to integrate a light resistance. You can do that easily with Pilates.”

According to Larkam, the Pilates equipment used for rehab often differs slightly from the equipment in a typical fitness studio. Pilates clinical Reformers might be higher off the ground,



Velcro cuff around her thigh above her right knee, connecting a cord or spring to the cuff on both the Reformer and the Cadillac so she could still activate her right hip joint and thigh, moving her right side without bearing any weight on her right leg. That way she could stay in shape while she recovered.”

Larkam explains that Pilates can address rehab for injuries to bones, ligaments and muscles—and with specialized Pilates equipment, the resistance and settings are easily adjusted to address individual needs. “When a ligament is torn, the body lays down scar tissue as it heals,” she explains. “Precise movement is the key to guiding the scar tissue on how to form. Exactly the right alignment with the right resistance can help it heal appropriately. Otherwise you won't be able to move smoothly.”

There's another surprising benefit to using Pilates equipment. As Anderson says, “We can adjust the

help Schneider, Jaleel called Schneider's PT, who was in favor of his client going to Pilates, and asked how she could help. Jaleel integrated the PT's plan into Schneider's Pilates program, and after three months she was no longer in pain and had improved her range of motion.

"I worked with Kathy on pectoral stretching, passive and active range-of-motion exercises, as well as weight-bearing exercises," Jaleel says. "One reason Pilates was so effective for her is that every exercise involves a tremendous amount of co-contraction of muscle groups. This working together of several muscle groups parallels normal movement patterns, so Kathy was able to become more functional in daily activities." Today Schneider has been cancer-free for two years and takes advanced Pilates classes.

### how to find a pilates pt

To incorporate Pilates into a rehab program, first ask your doctor or a PT clinic to recommend a therapist with Pilates training. Whatever you do, don't just pop in a Pilates DVD or take a quickie class at the Y. "They might not be prepared to work with people who are getting over injuries," says Garrick. The Pilates instructor should work with you one-on-one and stay in touch with your doctor or physical therapist to ensure that the exercises you do are appropriate for you at each stage of your recovery.

"Pilates provides a way for people to get more out of their physical therapy," says Anderson. "It maximizes the benefits. And we're finally starting to see a shift in the public's perception. In another 10 years, Pilates will be in 25 percent of the clinics around the country. That's huge."

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*Katy Koontz writes about wellness issues from her home in Tennessee.*

## getting to the source of your pain

"Until you inquire into where an injury is really coming from, it will stay with you," says Rudy Gehrman, DC, clinic director of the Heights Chiropractic & Rehabilitation Center in Brooklyn. "You could have surgery or cortisone shots and you might feel better for a while, but it will come back if you don't get to the root of the problem."

Gehrman gives the example of a 52-year-old patient who had begun fitness walking. A week into it, she started feeling pain in her lower back and numbness in her left leg. This was the third time in the past five years that she'd attempted to start a walking program, only to have to stop each time because of the same problem.

Watching her walk across the room, Gehrman noticed something her previous doctors had missed: Her left foot was hyperpronating—in effect, she had a flat foot. Her right foot, however, seemed normal. This told Gehrman that the patient's lower-back problem and leg numbness stemmed from muscle instability in her foot and ankle. Her injury kept recurring because she was assuming the problem was in her back, so the true source of her problem had never been treated.

Here's what had happened: The weakness in the woman's foot and ankle muscles caused

her inner foot to flatten or pronate, which in turn caused her leg to internally rotate as well. This affected her gait and caused tiny injuries, what Gehrman calls repetitive micro-traumas. They were so minor that they weren't painful, and the woman remained unaware of their presence.

As long as she maintained her normal daily activities, she didn't feel pain. But when she



started stressing her body with a walking program, her body started talking back with pain—but not in the area where the problem began.

"Pain is the last signal your body sends to you," Gehrman says. But it isn't always the source of the problem. "If you look only at what is hurting [in this case the patient's back] and not at the root of the injury [her foot and ankle], your rehab is only a patch. Sooner or later, the acute injury turns into a chronic one." —K.K.