Water Therapy Washes Rehab of Pain for Fibromyalgia Patients

Say you were injured playing your favorite sport and had to have surgery on your knee. Now think of the countless hours of painful rehabilitation you face just to get your knee working again. What if there was a way to rehabilitate your knee in less time and with less pain?

Or maybe you suffer from fibromyalgia or some other disorder that makes even the lightest touch painful. What if there was a way to get your muscles back in working order without all the pain? Well, there is. It's water therapy.

Using water to rehab injuries and ailments is both old and new. Greeks and Romans in ancient times used water to help them rehabilitate after sporting events, but it's only caught on recently in modern times. When NASA started doing research on weightlessness in water in the 1960s, people started realizing the scientific benefits of water therapy.

"Water can really help most patients," says Jan Pratt, physical therapist and owner of Aquatic Fitness Inc. in Creve Coeur and O'Fallon, Mo. "Using water is faster and better and offers less pain for the patient. For years physical therapists were referred to as physical terrorists or physical torturists. Water isn't that way -- it's fun. And it has a powerful effect."

Just ask Steve Rainey, 45, of O'Fallon, Mo. After his third, and most invasive, back surgery, his doctor recommended water therapy. "I just couldn't believe the difference it made," he says. "When I did regular land therapy it seemed like I hurt all the time." With water therapy, many patients are able to get back to movement earlier, and with less pain and without stressing the parts that are healing. You can start treatment one or two days after a sprain or strain and two to 10 days after surgery; compare this with five to seven days for a sprain or strain and two to four weeks after surgery for treatment on land, Pratt says. Of course, an open wound would prohibit immediate water therapy, though in some cases a special bandage can be used.

Water therapy with a different twist also worked for Susan Staat, 51, of Arnold, Mo. Staat has suffered from fibromyalgia for years. Fibromyalgia, an arthritis-related condition characterized by generalized muscular pain and fatigue, affects different people in different ways; for Staat, the feeling was similar to flu-like symptoms in her joints. "There were days I couldn't even put my feet on the floor, it hurt so bad."

She was in so much pain that the slightest touch affected her, and a traditional land massage, though beneficial, was extremely painful. Her husband read about a form of water therapy called Watsu. Watsu is a sort of Shiatsu massage in the water, a sequence of gentle movements and stretches as you are held in warm water that relaxes your body, resulting in greater flexibility and freedom. Staat thought she'd give it a try, so she called Kathleen Christ, who has performed close to 6,000 Watsu treatments at her St. Louis Aquatic Healing Arts Center in Creve Coeur, Mo.

"She puts me in a very relaxed state, and I'm just lifeless, and she gives me a deep, deep massage, the kind of massage I'm unable to do on a table," Staat says. "It would be just too painful. In the water, I don't feel the pressure." After four years of therapy, Staat says she's noticed a huge change. "I feel so good now. I was really in bad shape. I was in bed most of the time. Now, I'm very active. I cut the grass; I do a lot." In fact, she's been able to cut in half the number of pills she takes to control her fibromyalgia.

Watsu works for several reasons, she says. First, the warm water is hypnotic. "It's essential for anyone, especially a super Type A personality, because it gets the mind to relax. The body can heal itself when it's left to its own devices, but the mind gets in the way." The warm water then allows Christ to stretch
and move the body. “The greater freedom of movement it encourages creates a modality that can affect every level of our being,” she says.

Freeing the spine in a weightless environment is the cornerstone of a Watsu session. The therapist supports the client in water while gently rocking and stretching the back and limbs. The head stays above water in Watsu; for greater effect, patients can try Wassertanzen -- essentially the same thing, just with the head underwater.

During traditional water therapy and Watsu, the water is heated to body temperature. The warm water, says Christ, allows for a soothing of the mind as well as greater muscle movement. Water is an ideal rehabilitation tool for several reasons, Pratt says.

First is buoyancy. When you are immersed in water there is less gravity and less compression on the spine and other parts of the body. “Thus, someone just standing in water often has zero pain level without even having to move.”

Water's hydrostatic pressure is also a reason it's a great tool. The body feels compression from all sides. The physiological effects of this include a decrease in swelling.

Finally, the ability to add movement adds a new dimension. Water is 12 times denser than air, Pratt says, so the resistance (if you move swiftly enough) is great for rebuilding muscles. Plus, you can use more functional movements, working specific muscles in the water.


Treating the Pain of Fibromyalgia in Water by Lynda Huey, MS & Pattie O'Leary, PTA

For more than two years, Diane Schneier and her mother Joyce have been doing aquatic therapy three times a week, trying to alleviate the pain of fibromyalgia syndrome. Fibromyalgia is not fatal, disfiguring or crippling, and it doesn't get progressively worse. But it is often frustrating, because a person's pain, symptoms and energy levels can change every day. For Diane and Joyce, aquatic therapy relieves their condition and improves fitness and well being.

"The pool is the only place I can work out that doesn't hurt me," says Diane, a film producer who often spends 16 hours a day on her feet. "When I can get two or three months in a row of steady therapy sessions, I start to feel strong and physically capable again."

Fibromyalgia, the pain of fibrous tissue and muscles, isn't considered a disease, but rather a combination of symptoms that range from mild to severe. Up until 1990, this syndrome wasn't diagnosed directly. Instead, doctors ruled out other disorders that produced similar symptoms -- arthritis, lupus, rheumatism, connective-tissue disorders, thyroid disease or neurologic disorders.

In 1990, however, the American College of Rheumatology stated that fibromyalgia could be diagnosed by a history of widespread pain that occurred for more than three months in combination with pain in 11 of 18 specific, bilateral points in muscle tissue. If tender spots appear in all four quadrants of the body, a patient is diagnosed with fibromyalgia.

General symptoms include burning or stabbing pain deep in the muscles, sensitive skin, tingling or numbness of the hands and feet, headaches, bloating, dizziness and blurred vision. Approximately 15 percent to 20 percent of patients treated by rheumatologists have fibromyalgia.
Fibromyalgia patients are notoriously deconditioned; they often can't walk, use a bicycle or go to the gym without incurring more pain. The water, however, helps improve fitness while simultaneously treating aches and pains. Water's buoyancy virtually eliminates painful tissues and joints and provides an ease of movement not possible on land.

Water also provides a three-dimensional resistance to movement so that muscles develop strength equally in all directions. The water applies hydrostatic pressure to bodies immersed in it, and that reduces swelling and discomfort.

The following water protocol for fibromyalgia focuses on total body fitness, as well as stretching and strengthening specific areas of the body. All of these exercises are explained in detail, with photos, in The Complete Waterpower Workout Book by Lynda Huey and Robert Forster, P.T. (Random House, 1993).

Deep-water warm-up. By avoiding all impact, patients slowly perform general warm-up exercise with a sense of ease. Most patients have their heads above water, but people with severe neck pain do warm-ups submerged. This takes the weight of the head off the neck so they can exercise more comfortably. For safety, all patients are tethered to the side of the pool.

Deep-water interval training. An interval training session is created by combining the three skills -- deep water running, deep water walking and flies (hip and shoulder ab/adduction) -- in the deep water warm-up and varying the speed to create alternate periods of work and rest. Fibromyalgia patients should work at low to medium intensity levels to gain maximum aerobic benefits without crossing over into anaerobic work, which can cause undue fatigue. Pacing is important to help these patients make it through the entire session. Again, patients with neck pain are submerged.

Deep water-power exercises. The following nonweight-bearing exercises help strengthen the body gently and safely: sit kicks, heel lifts, bent-knee twists, quick scissors, v-kicks and deep back kicks.

Kick training. All of the following kicks target the muscles of the hips, thighs and buttocks: front and back flutter kick, bicycle kick, straight-leg deep kick and slap kick. Therefore, the lower extremities are reconditioned without any impact or undue fatigue. Patient's shoulders are protected by doing these exercises in a corner or on a step.

Stretching. The following stretches cover all the major muscle groups, but particular focus is on the shoulders and neck, where fibromyalgia patients report the most pain.

- Curl and stretch
- Hamstring stretch
- Cross-chest stretch
- Overhead triceps stretch
- Biceps stretch
- Clasp-hands-behind-back stretch
- Wall pec stretch
- Neck flexion
- Neck rotation

Upper extremity exercises. This series of range-of-motion exercises helps shoulders and arms gain strength, flexibility and function. On days when the pain level in the neck, shoulders and arms is minimal, we may ask a patient to use webbed gloves to create more resistance, thereby gaining strength. On days when pain is great, we may ask them to slowly perform the following pain-relieving exercises:
• Front/back pull
• Dig deep
• Up/down pull, front and back
• Biceps/triceps curl

Swimming or assisted swimming. If a patient swims, she can use the stroke that causes the least pain and aggravation. For people with back or neck pain, we often add face masks, snorkels, flotation belts for the hips and cervical collars for the neck. Most patients, however, do either a combined stroke (breaststroke with flutter kick) or a modified backstroke. The backstroke modifications apply the least amount of pressure on the neck, upper back and shoulders.

Watsu. This relaxation technique yields the greatest pain relief for fibromyalgia patients. The therapist cradles the patient in her arms, then gently rotates her own body from side to side, which causes the patient's limbs to sway. During a 15- to 20- minute treatment, the therapist moves from one side of the other side. During this motion, the patient floats with eyes closed and ears in the water, creating sensory deprivation, which relaxes and breaks the pain cycle. Watsu also has a cumulative effect on well being. For instance, if patients are pain-free for an hour or so after the first session, they may not have pain for up to four hours the next time.

Waterpower Workout exercises. These low-impact jumping exercises are optional and used only on days when a patient has little pain and feels strong and energetic. Exercises such as lunges, crossovers, squat jumps, side straddles, leg swings, front kicks, back kicks and frog jumps give patients a sense of athleticism they don't normally possess.

Besides the Schneiers, who helped inspire us to develop fibromyalgia protocols, dozens of other patients with fibromyalgia and rheumatoid arthritis have benefited from this program. On rare occasions, the symptoms of a few people increased, which made us shorten the first session of all fibromyalgia patients until we saw their reactions. We didn't want to overwork them and cause a flare-up. Other than that, we have no generalized contraindications for treating fibromyalgia patients in the pool. We simply let the patient's pain guide the program. If a specific exercise hurts, we skip it that day.

Our success with these patients has inspired rheumatologists to send other fibromyalgia patients to us. Insurers, workers' comp and private, are reimbursing steadily for treatment as well.

Several years ago, Fibromyalgia patients had few options, but with aquatic therapy, they have a valid treatment plan that provides what they need: pain relief and a fitness routine that won't exacerbate their condition.

Lynda Huey, MS, who pioneered the use of aquatic therapy with Olympic and professional athletes, is co-author of The Complete Waterpower Workout Book (Random House, 1993) and Heal Your Hips (John Wiley & Sons, 1999). Since 1994, Pattie O'Leary has worked with Lynda Huey in Southern California and Florida.