

Pool therapy to relieve osteoarthritis pain

Pool therapy for osteoarthritis

Anyone who has slipped into the comfort of a warm bath already has some appreciation for the benefits of pool therapy. For people suffering from osteoarthritis – arthritis of the bone – the pain relief felt in the hips, back and knees while in a warm bath is palpable. Yet, it is also true that exercising the joints is necessary to maintain flexibility, relieve pain and it is increasingly recognized that exercise retards the underlying disease process of osteoarthritis. This leaves osteoarthritis sufferers with a dilemma: how to engage in exercise and remain active while avoiding pain that results from activity?

One answer is pool therapy - also referred to as aqua therapy or water therapy. A pool or tank of warm water provides an ideal environment in which to exercise because its buoyancy counteracts gravity, thereby decreasing the weight placed on painful joints and the spine. In fact, when immersed to neck level, buoyancy supports 90 percent of the body's weight. In waist-depth water, buoyancy can still support 50 percent of body weight. Diminished weight bearing stress is one of many of the advantages of pool therapy for patients with osteoarthritis.

Practical Point

Some osteoarthritis patients refer to pool therapy as a form of "floating traction", allowing them to stretch their spine and loosen and flex joints in a way that would be impossible on a mat.

Benefits of water therapy

Patients with pain from osteoarthritis are often unable to perform many land-based exercises without exacerbating the pain. However, in a buoyant, gravity-reduced environment like water, gentle movements to improve strength, flexibility, and endurance are often possible. A primary goal of pool therapy is to teach participants new ways of moving, in fact retraining the musculoskeletal system to accommodate the effects of osteoarthritis.

People who have osteoarthritis of the spine, sometimes referred to as spinal arthritis, can benefit greatly from pool therapy. Spinal arthritis results when the cartilage between adjoining facet joints in the back portion of the spine has broken down, causing the joints to become inflamed and generate pain while sitting, standing or walking - any activity that places weight or friction on the spine. Consequently, the buoyancy of the warm water environment of pool therapy relieves the friction on the painful joints, which can be particularly pronounced in the lower back (lumbar spine) and the neck (cervical spine). In fact, some patients refer to pool therapy as a form of "floating traction" allowing them to stretch their spine and loosen and flex joints in a way that would be impossible if they weren't in water.

While the benefits of buoyancy upon arthritis are substantial, they are far from the only useful effects of aquatic exercise. Immersion also has an effect of decreasing pain that is independent of the joint offloading effects of buoyancy. Aquatic exercise also has very important effects upon the cardiovascular system, actually improving heart function during exercise and allowing improved circulation to the muscles and joints, facilitating recovery and strength-building.

Examples of pool therapy exercises

Many movements that are part of pool therapy for osteoarthritis patients look similar to stretching or resistance exercises conducted on land, with the exception that they use the gentle resistance of water rather than gravity to exercise muscles or joints. A few of the more popular exercises are:

- **Stretching**, including stretching the hamstrings and lower back by slowly raising knees to chest, or stretching the upper back and neck by standing away from the side of the pool and leaning forward with arms outstretched to grasp the pool edge
- **Strengthening**, including using foam barbells to complete bicep curls or lateral side raises that work against water resistance
- **Water aerobics**, including water walking, cross-country skiing movements or slow jogging in a shallow pool which loosens the lower back and hips
- **Ai Chi**, a hybrid form of Tai Chi developed specifically for aquatic exercise that develops strength, balance and joint flexibility through slow gentle movements while focusing upon relaxation and controlled breathing.

Hughston Orthopedic Hospital has the only pool with a hydraulic lift to assist patients in and out of the pool during therapy treatment. Ask your Hughston Spine Center physician about how you can benefit from pool therapy at Hughston Orthopedic Hospital.