

Exercising in Water Reduces Osteoarthritis Pain

For patients suffering from osteoarthritis of the hip or knee, doing aerobic and stretching exercises in warm water can bring some relief from the pain and could improve daily function, a new review has found.

Knee and hip osteoarthritis are widespread diseases seen in up to 6 percent of the population. The main goal of treatment is to improve pain control, according to a team of Danish reviewers, which included Bente Danneskiold-Samse, professor at The Parker Institute in Frederiksberg.

The aim of the systematic review was to determine the effectiveness of one form of such treatment aquatic exercise.

The review appears in the current issue of The Cochrane Library, a publication of The Cochrane Collaboration, an international organization that evaluates research in all aspects of healthcare. Systematic reviews draw evidence-based conclusions about medical practice after considering both the content and quality of existing trials on a topic.

The Cochrane reviewers write that osteoarthritis accounts for "more trouble in walking and climbing stairs than any other musculoskeletal disease."

Treating osteoarthritis typically includes a combination of medication, weight control, physical therapy and exercise. In aquatic exercise, also known as "pool therapy" or "hydrotherapy," patients perform tasks, such as aerobic activities or stretching and strengthening and range of motion exercises, in water heated to about 90 to 97 degrees Fahrenheit.

The Cochrane reviewers analyzed six trials that had 800 participants who all were living with osteoarthritis. Four studies included patients with osteoarthritis of either the knee or hip, one study followed patients with only hip arthritis and one included patients with only knee arthritis.

In the studies, some patients did aquatic exercises for different lengths of time and numbers of sessions per week, while other patients did no exercise or exercised on land. Most of the studies measured patients after three months of therapy.

Based on the studies' results, the reviewers said, "In people with osteoarthritis of the hip or knee, pain may decrease by one more point on a scale of 0 to 20 with aquatic exercise, and function may improve by 3 more points on a scale of 0 to 68."

"There is gold-level evidence that for osteoarthritis of the hip or knee, aquatic exercise probably slightly reduces pain and slightly improves function over three months," the reviewers wrote. "Based on this, one may consider using aquatic exercise as the first part of a longer exercise program for osteoarthritis patients."

The reviewers were unable to find evidence on whether aquatic exercise affected patients' walking ability or stiffness after treatment sessions.

Wanda Evans, a physical therapy resource specialist at Kaiser Permanente, said that her clinic

uses aquatic therapy to treat 80 percent to 90 percent of patients with hip and knee osteoarthritis and "100 percent" of them experience some improvement.

"Oftentimes, aquatics are the primary course of treatment if the patient is obese and 80 percent of our patients with this diagnosis are obese," Evans said. "Otherwise, it is considered an adjunct to the primary course of treatment, which is land-based exercises."

The reviewers concluded that more research could help determine long-term effects and to understand which types of aquatic exercise as well as for how often and how long might benefit osteoarthritis sufferers.

Evans said in her experience, whether the beneficial results of aquatic exercise are short- or long-term varies among patients.

"Because this condition is a degenerative process, no conservative treatment will ever give you complete long-term results," she said. "However, aquatic exercise will absolutely prolong the need for surgical intervention and, in some cases, can delay the need for surgery for years."

The Sacred Heart University Sports Medicine and Rehabilitation Center, a division of Integrated Rehabilitation Services provides Aquatic Physical Therapy utilizing a Swim-Ex exercise pool to treat patients with osteoarthritis. This aquatic rehabilitation is also ideal for patients with a variety of musculoskeletal and neurological problems. Aquatic rehabilitation has been found to be exceptionally beneficial for people with osteoarthritis and joint replacements, low back pain and injury as well as lumbar surgeries, and a host of other impairments.