

Waiting For a Hip or Knee Replacement? Here are Some Tips to

Waiting For a Hip or Knee Replacement? Here are Some Tips to Control Pain and Stay Active

In some countries with universal or nationalized health care, a joint replacement is considered an *elective* procedure. That means it's not an emergency procedure. So despite pain and loss of motion or function, that individual must wait in a *queue* (line) that can take weeks to months. In the meantime, they are advised to stay active. What's the best way to do that? Should patients exercise or not? That's what the researchers involved in this study wanted to find out.

Physical Therapists from *down under* (Australia) compared patients with hip or knee osteoarthritis exercising either on land (land-based) or in a pool (pool-based) while waiting for surgery. The patients were *randomized* (randomly placed) into one group or the other. They were

Both groups engaged in their respective exercise (land-based or pool-based) twice a week for six weeks. The sessions were supervised by a Physical Therapist. Each exercise session cost \$6.00 per patient. They were also asked to continue exercising at home at least three times a week in any form: riding a bike, walking, or doing land-based exercises similar to what they did in class.

In addition to the exercise program, patients in both groups were given instruction (education) about their condition (arthritis) and how to exercise safely. An occupational therapist visited their homes and helped them modify the environment for safety. Each patient was also asked how long they exercised at home throughout the follow-up period (15 weeks).

Results of exercise was measured using the *Western Ontario and McMaster Universities Osteoarthritis Index* (WOMAC), a 36-item self-report questionnaire that includes a walk test, and a Chair Stand Test. Mental health was assessed using the *Short Form-36* score. Pain intensity was recorded at baseline and the next day.

The study was geared to look for differences between these two exercise forms when combined with education and home modifications. They wanted to see if land-based exercise or pool-based exercise worked better for reducing pain and improving function. Was one type of exercise easier than the other? Did the patients tolerate one type of exercise easier than the other?

They found that either form of exercise had equal results. Land-based exercise was less expensive than trying to maintain a pool. Pools designed for therapy with water warm enough for arthritic patients aren't always easy to find. Some patients were unable to attend due to complications in either group.

The pool-group reported less pain right after exercise and into the next day. That may be a major advantage of pool-based exercise. People with advanced osteoarthritis don't exercise. Most of the individuals in this study were obese, so pool-based exercise with its associated costs and pain after exercise.

When they took a look at the participants daily diaries, they found a large percentage were *compliant* meaning they did exercise. The sessions were usually 30 to 45 minutes long. The average person completed exercising at home three to four times a week during the study and slightly to two to three times per week during the extended follow-up period. Reasons given for not exercising included lack of time and other commitments.

The results of this study provided evidence that there are ways to manage arthritis pain for patients waiting to have joint replacement surgery. Exercise, disease condition, exercising, and modifying the home environment are three steps everyone can take to reduce pain and improve quality of life. The study helps patients facing a long wait for their joint replacement surgery. But the study results also show that anyone with arthritis can improve quality of life.

Stephen D. Gill, BPhy, et al. Land-Based Versus Pool-Based Exercise for People Awaiting Joint Replacement Surgery: A Randomized Controlled Trial. In *Archives of Physical Medicine and Rehabilitation*. March 2009. Vol. 90. No. 3. Pp. 388-394.