'Prehabilitation' prepares patients for hip and knee surgery
22 October 2013, by Bryan Alary

In less than 10 years, osteoarthritis has claimed both of Barbara Carson's knees and one of her hip joints. Yet it wasn't until the most recent surgery on her right knee that Carson heard the term "prehabilitation," let alone understood how it could affect her recovery.

Prehabilitation involves enhancing physical capacity before a total hip or knee joint replacement surgery, using education and patient-tailored exercise programs that often include stretching, pool exercises and dry-land training.

"Prehabilitation helped me enormously," said Carson, 70. "The personal attention kept me on track, so I felt far more prepared for surgery on my right knee than I was for the first one. The exercises made my knee stronger; my mind and body felt stronger."

Prehabilitation is not a common therapy for hip and knee replacements, although that could change depending on the experience of people like Carson and results of research from the University of Alberta.

Allyson Jones and Lauren Beaupre, both associate professors in the Faculty of Rehabilitation Medicine, are investigating the effects of prehabilitation in patients with the greatest pain and lowest function. Their latest study on the subject has shown mixed results in terms of restoring function; however, experiences like Carson's are more common and point to benefits in patient preparation and management.

"People really appreciated having that consistent person being able to help them understand what to expect, what exercises to do, how to interpret pain and how they might feel after surgery," said Jones, the study's lead author.

This could be particularly useful for patients with chronic conditions who otherwise would have difficulty coping at home. During an eight-week period, therapists were in the homes of patients, going over exercises, talking about pain management and ensuring their homes did not pose mobility obstacles.

Jones and Beaupre will share some of their preliminary findings Oct. 24 at the Wood Forum on Hip and Knee Osteoarthritis in Corbett Hall. An initiative of the McCaig Institute for Bone and Joint Health and supported by the Wood Foundation and a Canadian Institutes of Health Research grant, this free event gives the public direct access to talk to osteoarthritis researchers and clinicians about hip and knee issues, including the causes, consequences and prevention of joint injuries.

Though more research is needed on whether prehabilitation can help restore function, it is an experience Carson says should be available to anyone undergoing hip or knee surgery—including herself, as she's about to undergo another hip surgery.
"I am the kind of person that needs all the help I can get when it comes to exercises, so any extra motivation and one-on-one advice really does help," she said. "It would be fantastic to see the program extended post-surgery as well."

Provided by University of Alberta