

Preoperative Rehabilitation for the Osteoarthritic Knee

WHAT IS OSTEOARTHRITIS?

The arthritis society of Canada suggests that one in ten Canadians are affected by osteoarthritis- a condition that affects joints in the body. This disease is capable of affecting any joint, but is primarily seen in the hands and weight bearing joints such as the knees, hips and spine.

Osteoarthritis develops when the cartilage that covers the ends of bones wears down. Cartilage is a tough elastic material which acts as a shock absorber to protect your bones from rubbing against one another when weight is put through them. Over time, this cartilage may break down and become thin, resulting in friction between the ends of two bones. This friction causes severe pain, stiffness and lack of movement.

An individual who is affected by osteoarthritis of the knee may experience severe pain, a decrease in strength, flexibility and range of motion. Due to these factors, total knee arthroplasty may be required. Also known as a joint replacement, joint arthroplasty refers to replacing a painful, damaged or arthritic joint in the body with a new joint consisting of artificial material. This material is shaped like the knee joint and allows the knee to regain movement and function.

Rehabilitation after surgery is an integral part of recovery. However research also suggests that commencing a pre-operative exercise program is just as important.



PRE-OPERATIVE REHABILITATION

The term “**prehabilitation**” refers to conditioning the body, through exercise, before it undergoes some type of physical stress such as joint arthroplasty. Studies suggest that functional ability of the knee after surgery is strongly dependant on its functional ability before the surgery. A pre-operative exercise program would incorporate exercises to target four main areas including, strength, flexibility, proprioception and cardiovascular fitness.

Medical research supports pre-operative rehabilitation for improvement in the areas of:

- proprioceptive ability/position sense and balance
- strength
- functional capacity
- decreased need for inpatient rehabilitation
- shorter duration of hospital stay
- cardiovascular fitness
- weight loss/reduced strain on the knee joint

References:

- Brown K. et al, Journal of strength and conditioning research 2009; 23(2) 436-43
Jaggers JR. et al, Journal of strength and conditioning research 2007; 21(2) 632-634
Rooks DS. et al, Arthritis & rheumatism 2006; 21(2)700-8

Physiotherapy for osteoarthritis of the knee is covered by most extended health insurance plans.

For more information, please contact

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