

# Kelowna Bone and Joint Health

## Avoiding Stiffness After Your Knee Replacement

One of the most common causes of disappointing results after knee replacement surgery is stiffness. Certain patients may be more prone to stiffness than others. Genetics may be at play, with some individuals forming large amounts of scar tissue in response to surgery. Risk factors for post-operative knee stiffness include pre-existing stiffness, multiple previous operations on the same knee, severe bleeding/swelling after surgery, poor pain control, and inadequate stretching/physiotherapy. Almost all knees fully bend and straighten at the end of the surgery, but stiffness can develop rapidly if the joint is not regularly put through a range of motion. It is exceptionally rare that knee stiffness is caused by errors made during installation of the prosthesis. The following strategies should be considered by all patients to avoid stiffness:

- 1.) Start bending and straightening of the knee Day 1 post-op and do aggressive range of motion stretches at least 5 times a day thereafter. Many patients are afraid to move the knee but there is nothing to fear. Follow the exercises in the teaching booklet given to you before surgery but pay special attention to forcing the movement.
- 2.) Ensure that your pain control is optimized so you can participate more vigorously with your stretching. Patients with uncontrolled pain cannot usually move their knee enough. Take pain medications 30-60 minutes before stretching/exercising. If pain remains a problem, call your surgeon or family doctor for advice. You may also refer to the pain control teaching handout given to you at discharge.
- 3.) Icing the knee before and after can be helpful.
- 4.) Hang your leg over the side of the bed and use the other leg to bend it, the goal is to get beyond 90 degrees of knee flexion as soon as possible. Full flexion and extension of the knee is possible in many cases with some hard work and perseverance.
- 5.) Ask caregivers or family to help bend and extend the knee at home.
- 6.) Attend your hospital outpatient physiotherapy classes. If you have the means or other insurance coverage for additional private physiotherapy, that is recommended.
- 7.) You will not harm or damage your knee, or the incision, by stretching in most cases. If you see your wound opening, then call your surgeon's office immediately.

In certain cases, a minority of patients will encounter severe stiffness which may not be able to be solved despite their best efforts. If adequate range of motion is not achieved by 3 months post-op, your surgeon may consider a manipulation at the hospital under anesthetic (forceful bending to break down scar tissue). Even manipulations are not always successful and patients requiring manipulations are at risk for disappointing final outcomes.