

After the ISKD surgery, the patient is required to limit the amount of weight placed on the leg to be lengthened. Because this tends to also limit normal movement of that leg, both strength and flexibility often decrease over time. In order to assure the best recovery, it is important to build strength and flexibility before the surgery, and maintain flexibility after the surgery.

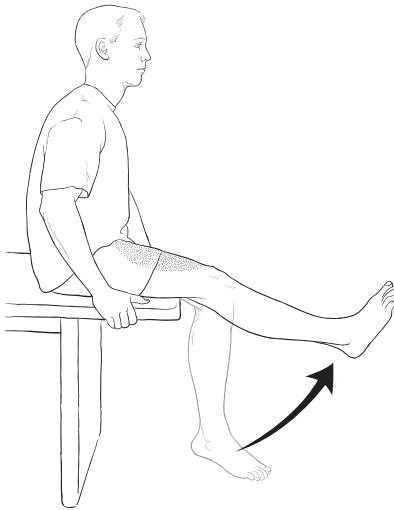
These strengthening and stretching exercises are provided as a general guideline for ISKD patients. The ISKD surgeon will direct specific exercises or therapies as necessary for individual specific needs.

STRENGTHENING EXERCISES BEFORE SURGERY

To increase the strength of certain muscle groups the following exercises can be performed. Each exercise can be done by slowly moving the leg against gravity or with light weights, as shown. The amount of weight and number of repetitions is dependent on the patients initial capabilities.

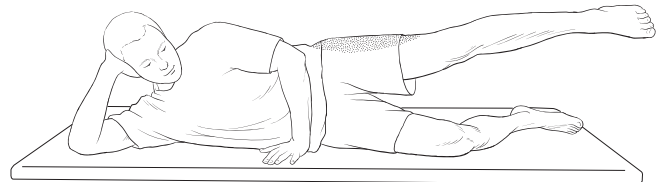
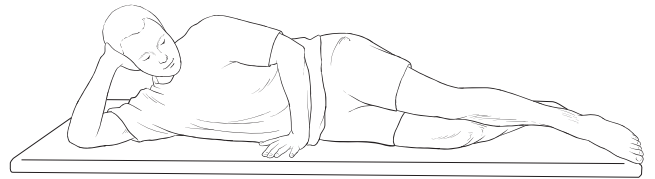
Leg Extensions

This exercise will strengthen the muscles on the front part of the thigh. Sit at the edge of a table or chair, with the back straight and knees bent. Raise the foot of the affected leg so the leg is straight out. Hold this position for a count of one, then relax. Build up to three sets of 15 repetitions. Add light weight if necessary.



Hip Abduction

This exercise will strengthen the muscles on the outside of the thigh. Lay on a side on a table with the affected leg on top. The bottom leg is bent out of the way. Keeping the affected leg straight, lift it up off the table and hold for a count of one. Try not to bend at the hip or roll toward the stomach or back. Bring the foot back down to the table. Build up to three sets of 15 repetitions. Add light weight if necessary.



Ankle Flexion

This exercise will strengthen the muscles on the front of the lower leg used to raise the foot. Sit at the edge of a table or chair, with the knees bent. Keeping the lower leg hanging down, raise the front of the foot of the affected leg up, bending only at the ankle, and hold for a count of one. Relax the ankle and let the foot drop down. Build up to three sets of 15 repetitions. Add light weight as necessary.

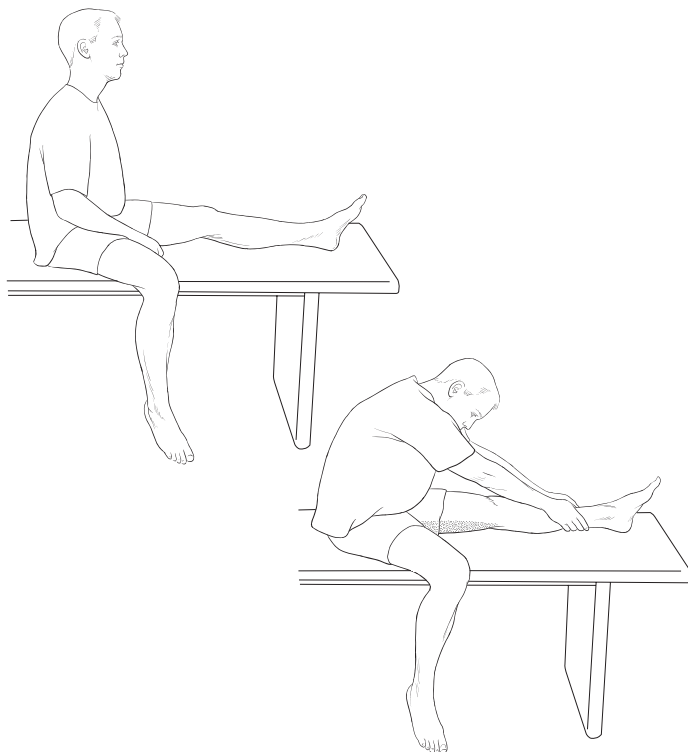


STRETCHING EXERCISES BEFORE AND AFTER SURGERY

Both before and after the ISKD surgery, flexibility of the muscles in the affected leg is important. The following stretching exercises should be performed in a relaxed manner without forcing the stretch position. When done after surgery, it may be advisable to take pain medication as advised by the surgeon and/or soak in a warm bath to relax the muscles prior to stretching.

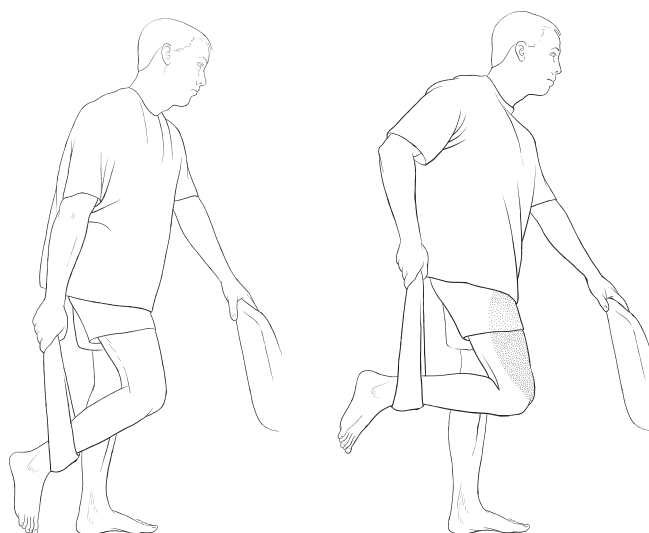
Hamstring stretch

Place the affected leg up on a table or bed and the other leg on the floor, and let the table or bed support the body weight. Lean forward over the affected leg until a stretch is felt behind the leg. If you feel a stretching behind the knee, relax the stretch slightly. Hold this position for a count of 30 and repeat 3-5 times.



Quadriceps stretch

Stand on the unaffected leg and balance by holding onto a stable chair or wall. Remember to limit the weight on the affected leg if stretching after surgery. With the free hand, grasp the ankle of the affected leg and pull the heel up and behind the buttocks. Use a towel if necessary so that the leg does not have to extend as far. If a stretch is felt at the hip or knee joint, relax the stretch slightly. Hold this position for a count of 30 and repeat 3-5 times.



Calf stretch

Stand about 2 feet away from a wall and lean into the wall with the hands supporting the weight. If done after surgery, be sure to limit the weight on the affected leg. Lean in toward the wall by bending the elbows until a stretch is felt at the back of the calves. Keep the knees straight and the hips forward. Be sure not to bend at the waist.

An alternative stretch for certain patients after surgery will be to simply place the toes of the affected leg on the ground and press the heel down until a stretch is felt behind the calf.

If a stretch is felt behind the knee, relax the stretch slightly. Hold this position for a count of 30 and repeat 3-5 times.

