



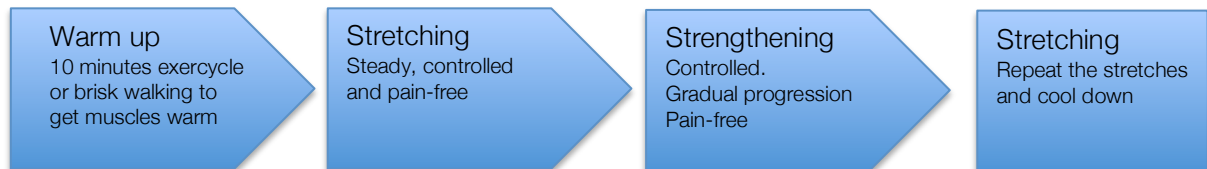
KNEE CONDITIONING PROGRAM

This knee conditioning program is designed to help you rehabilitate from your knee injury. In some cases, the program is being used as pre-habilitation, that is strengthening you prior to going through surgery to speed your recovery.

This is a general conditioning program that provides a wide range of exercises. Some of them won't be suitable for you due to your injury; others you may initially find too difficult until you have gained strength with easier exercises

The conditioning program should be continued for a minimum of 4 to 6 weeks, unless otherwise specified. After your recovery, these exercises can be continued as a maintenance program for lifelong protection and health of your knees. Performing the exercises two to three days a week will maintain strength and range of motion in your knee.

Steps of each rehabilitation session:



Do not ignore pain: You should not feel pain during an exercise. There is no benefit in trying to push the knee beyond what is comfortable, either in stretching or strengthening exercises. You risk further injury and setting back your progress.

Conditioning program:

Below is a suggested framework for progressing through the exercises over a six week period. This may be modified to suit your injury and progress. Discuss your specific program with your physiotherapist or doctor.





KNEE STRETCHING EXERCISES: (AFTER WARMING UP)

Standing calf stretch (gastrocnemius):

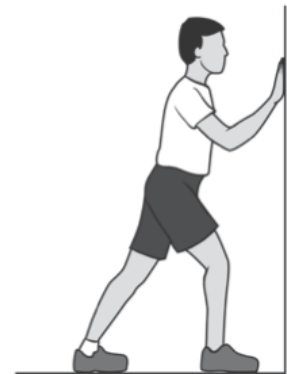
You should feel this stretch in the upper part of the calf

Stand facing a wall, with your unaffected leg forwards.

Your other leg is straight and behind you, with the heel pushed flat onto the floor and the toes pointed in slightly.

Keep both heels flat on the floor and push your hips and upper body towards the wall. Don't arch your back.

Hold for 30 seconds. Repeat on the other side. Repeat the entire sequence 3 times.



Standing calf stretch: (soleus)

You should feel this stretch in the lower part of your calf

Start in the same position as for the first calf stretch, but this time bend both knees, while keeping your heels pushed into the floor.

Move your upper body and hips towards the wall in the same motion as before.

Hold for 30 seconds. Repeat on the other side. Repeat the entire sequence 3 times.



Hamstrings:

You should feel this stretch in the back of your thigh.

Lie on the floor with bent knees. Bring one knee towards your chest and grasp it behind the thigh with both hands.



Straighten your leg and pull it gently towards your head. If you can't reach easily, use a towel around your leg.

Hold for 30-60 seconds and then release and do the other leg.

Repeat the entire sequence 4 times.

Standing quadriceps stretch:

You should feel this stretch in the front of your thigh

Hold the back of a chair or a wall for balance

Bend your knee and bring your heel up toward your buttock. Grasp your ankle and gently pull your heel closer to your body

Hold the position for 30-60 seconds and repeat with the opposite leg

Repeat the sequence 4 times.



Standing iliotibial band (ITB) stretch:

You should feel this stretch at the outside of your hip

Stand next to a wall for support.

Cross the leg closest to the wall behind the other one. Lean your hip towards the wall until you feel a stretch on the outside of your hip. Don't lean forward or twist at the waist, it is a sideways bending motion.

Hold for 30 seconds. Repeat on the other side. Repeat the entire sequence 4 times.





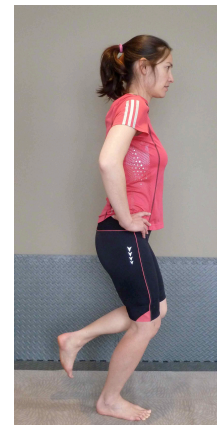
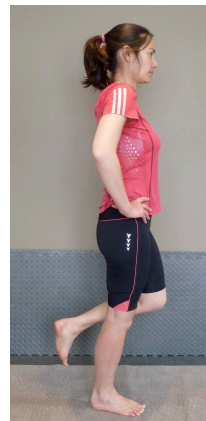
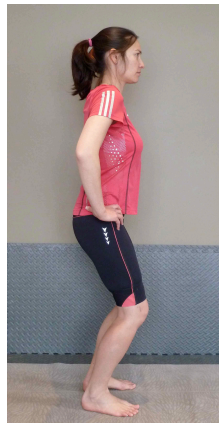
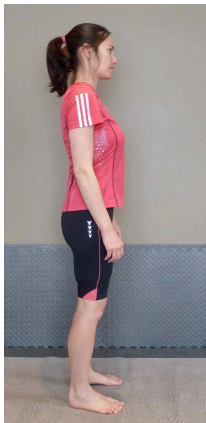
STRENGTHENING EXERCISES: QUADS PROGRESSION

1. Mini squats:

Stand with your feet shoulder width apart. Keeping your upper body upright, slowly lower yourself until your knees are about 45° bent. Keep your weight over your heels. Hold the squat for 5 seconds, then return to starting position.

Aim for 3 sets of 10 repetitions.

To progress this exercise, perform it on a single leg.



2. Wall squats

These can be done against the wall directly, or leaning against a swiss ball as shown here.

Start with your legs straight and back flat against the wall or swiss ball. Slide down the wall until your knees are flexed to 90°. Hold the posture as long as possible, then return to the starting position. Repeat 3 times.

To progress this exercise, perform it on a single leg.



3. Split squats

This is a static version of a lunge. Place one foot about 2 feet in front of the other, move forward and down by flexing your front hip and knee, while keeping your trunk upright. Hold for 5 seconds, then return to the starting position.

3 sets of 10 repetitions on each side.



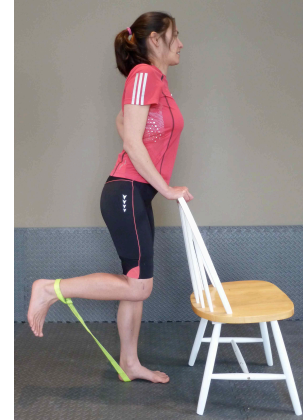
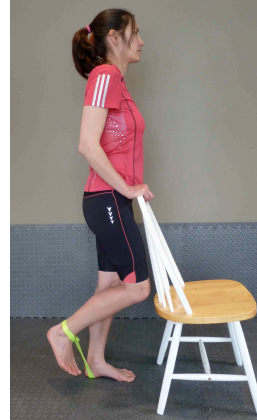


STRENGTHENING EXERCISES: HAMSTRING PROGRESSION

1. Hamstring curls:

Standing, using a chair or wall for balance. Have a resistance band secured at ground level and looped around your ankle. Slowly flex your knee to bring the foot as close to the buttock as possible. Slowly lower back to the starting position.

Do 3 sets of 10 repetitions



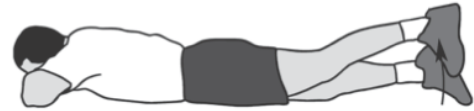
2. Prone leg raises:

Lying face down, resting your head on your arms. Tighten your buttock and hamstring muscles to lift your leg towards the ceiling as high as you can.

Hold for 5 seconds, then lower and rest for 2 seconds.

Do 3 sets of 10 repetitions.

Once you are doing 3 sets of 10 easily, progress this exercise by using ankle weights to increase the resistance.



3. Bridging: Part 1

Lie on your back on the floor. Bend knees to 90° with your arms at the side.

Lift pelvis off the floor, hold for 10 seconds, then slowly lower to the floor.

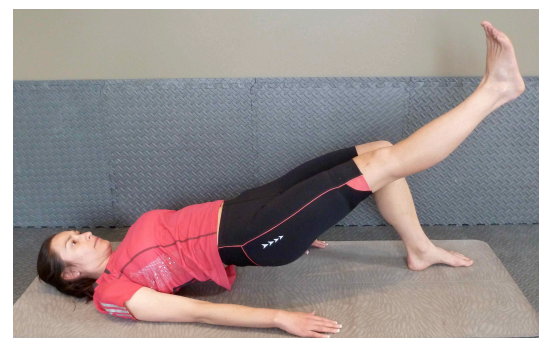
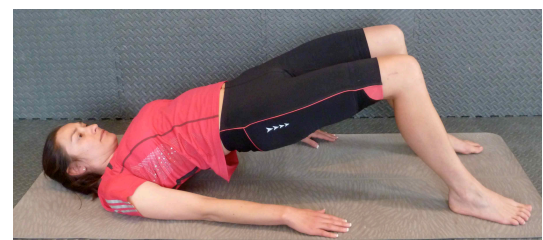
Repeat 5 times. Aim for 3 sets.



4. Bridging: Part 2

Raise your pelvis off the ground as in part 1, then while maintaining this position, straighten one knee, so that your foot comes off floor. Once your leg is fully straight, hold for 5-10 sec, slowly lower foot, then repeat for the other side.

Aim for 3 sets of 5 repetitions.





CALF PROGRESSION

1. Double leg calf raise

Start with your legs in full extension (straight knees).

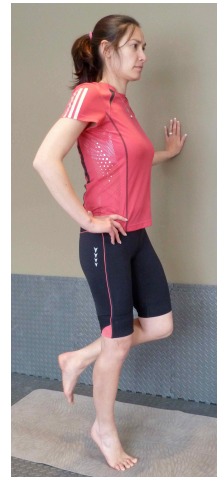
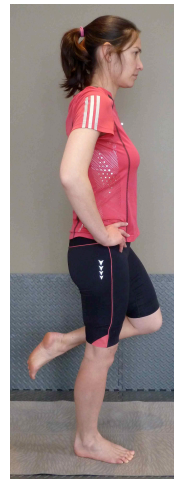
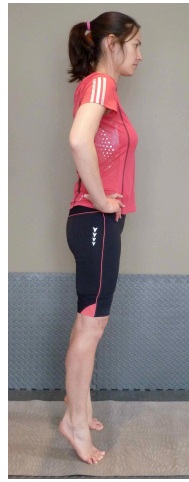
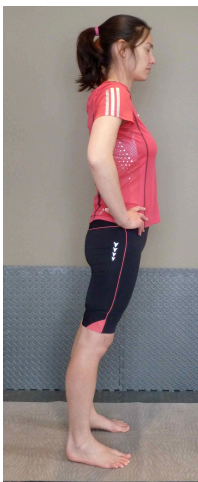
Rise up onto tip toes and then return back to the ground. Slow controlled movement up and down.

Aim for 3 sets of 20 repetitions

2. Single leg calf raise

Once comfortably performing double leg unsupported, progress to single leg raises. You can use a wall or table to steady yourself if required.

Again aim for 3 sets of 20 repetitions.



CABLE EXERCISES

Attach a cable machine around your ankle to provide resistance. The cable pull should be directly in the line of the movement to provide resistance to the motion and have enough resistance to make the last few reps in each set hard work.

Start in the position shown on the left to perform adduction movements, then turn 90° for flexion. Turn another 90° for abduction, then another 90° for extension to complete the set. Aim for 3 sets of 10 repetitions in each movement.

Nb: If you don't have access to a cable machine, theraband or sportscord works well.





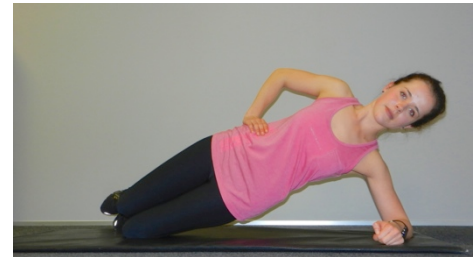
BRIDGING (PLANKING) EXERCISE PROGRESSION – LATERAL

1. Modified (easy) side planking

Lie on your side with your knees bent.

Prop your upper body up on your left forearm with your elbow under your shoulder. Brace your core and raise your hips until your body forms a straight line from your ankles to your shoulders. Your head should stay in line with your body. *Hold this position for as long as possible while maintaining good posture.*

Swap sides and repeat. 3 repetitions on each side.



2. Side plank

Lie on your side with your knees straight.

Prop your upper body up on your left forearm with your elbow under your shoulder. Brace your core and raise your hips until your body forms a straight line from your ankles to your shoulders. Your head should stay in line with your body. *Hold this position for as long as possible while maintaining good posture.*

Swap sides and repeat. 3 repetitions on each side.



3. Single leg side plank

Start in the raised position of the side plank. Maintaining this position, without letting your hips sag, slowly lift your top leg as high as you can, hold briefly and then return to the starting position. Repeat 10 times.

Swap sides and repeat. 3 set of 10 repetitions on each side.

