



# BACKSTRONG SPINE & REHAB

GET STRONG • BE STRONG • STAY STRONG  
backstrongchiropractic@yahoo.com

Patient name: .....

## BEGINNER OPEN CHAIN QUADRICEPS EXERCISES FOR PATELLOFEMORAL PAIN

*These exercises are aimed at increasing the strength and agility of the muscle on the front of your thigh, the quadriceps. They should provide you with relief if you suffer from pain around the kneecap.*

### QUAD CONTRACTION

#### Step 1

Sit or lie on a table with one leg straight and relaxed.



#### Step 2

Squeeze (contract) the muscles on the front of your thigh (quadriceps) as if you are straightening your leg. Hold for five seconds.



#### Step 3

Relax your leg muscles.

Repeat steps 2 to 3 ten times each side. You can perform up to four sets.

Did you know you can  
experience improvements  
in strength in as little as  
one training session?

## SHORT ARC QUAD

### Step 1

Sit or lie on a table with one leg straight and place a towel under your knee so that it is bent.



### Step 2

Squeeze (contract) the muscles on the front of your thigh (quadriceps) so that your leg straightens. Hold for five seconds.



### Step 3

Relax your leg muscles.

Repeat steps 2 and 3 ten times each side. You can perform up to four sets.

Position of rolled towel or mat:



Swelling and pain in the knee can reduce the neurological input into the quadriceps muscle, reducing its strength.

Retraining quadriceps strength is important to restore function following an injury.

This material is copyright © Neurogym®. Not for re-sale. Reproduction and distribution is only permitted under the practitioner subscription package terms as described at [www.neurogymfitness.com](http://www.neurogymfitness.com).

You should seek professional advice from a relevantly qualified person to discuss any personal circumstances which may affect your ability to undertake particular exercise. Neurogym® shall not be liable for any injury caused, whether due to negligence or otherwise arising from use of or reliance on this information.

## STRAIGHT LEG RAISE

### Step 1

Lie on your back with one leg bent and the other straight and relaxed.



### Step 3

Lift your leg up to 10cm off the table, keeping your knee straight. Hold for 5 seconds.



### Step 2

On the straight leg side, squeeze (contract) the muscles on the front of your thigh (quadriceps) so that your leg straightens further.

### Step 4

Slowly lower your leg to the step 1 position.

Repeat steps 2 to 4 ten times each side. You can perform up to four sets.

## LONG ARC QUAD

### Step 1

Sit upright on a chair with both feet flat on the floor.



### Step 3

Slowly straighten your leg until it is straight. Hold for 5 seconds.



When you exercise you're not just changing your body – you're also changing your nervous system!

### Step 2

Squeeze (contract) the muscles on the front of your thigh (quadriceps) .

### Step 4

Slowly lower your leg to the step 1 position.

Repeat steps 2 to 4 ten times each side. You can perform up to four sets.