

Spinal Exercises

Information for patients



Clinical Support
Services –
Physiotherapy

Exercise has been shown to help with low back pain however it often takes time to take effect. It is important to be patient and persevere with the exercises. They have been selected to help to improve your core stability, spinal control and flexibility. This will also help to manage your symptoms in the longer term and therefore you should always continue with them even when your physiotherapy is completed.

These exercises have been selected for you by your physiotherapist. Only perform the exercises that have been ticked as they have been selected specifically for you.

You may find that your exercises will be changed as you progress. If this happens your old exercise will be crossed out and a new one will be ticked.

When starting any new exercise it is not unusual to experience some discomfort. This is normal, however the exercises should not be very painful or cause your symptoms to worsen. If this happens, firstly perform the exercises more gently. Secondly reduce the number of exercises. If the pain continues to worsen, stop and let your physiotherapist know at your next appointment.

You should also attempt to perform some cardiovascular exercise 2 – 3 times per week. This could be as simple as walking or gentle swimming. Some people will also benefit from more advanced exercise such as attending the gym, cycling, keep fit or pilates classes. Your therapist will advise you which are the most suitable activities to try.

You may find that your symptoms increase from time to time. If this happens you should reduce or rest from your exercises for 1 – 2 days then restart the exercises gently at first then gradually increase them as you start to feel better.

If you are struggling with any of the exercises, forget how to perform them or are having difficulty finding time or a location to do the exercises please speak to your therapist. This is one of the most important aspects of your treatment and we are here to help you.

The basics

Neutral Spine

Neutral spine position is the natural inward curve of the lower spine.

This should be a gentle shallow curve. You should attempt to maintain this position during some of your exercises and during activities such as sitting and lifting. Your physiotherapist should have taught you how to find your neutral spine position.

Transversus abdominis (Trans abs)

Trans abs is one of your stomach muscles which helps to provide core stability. Core stability is the action of certain muscles which helps to provide support for your spine.

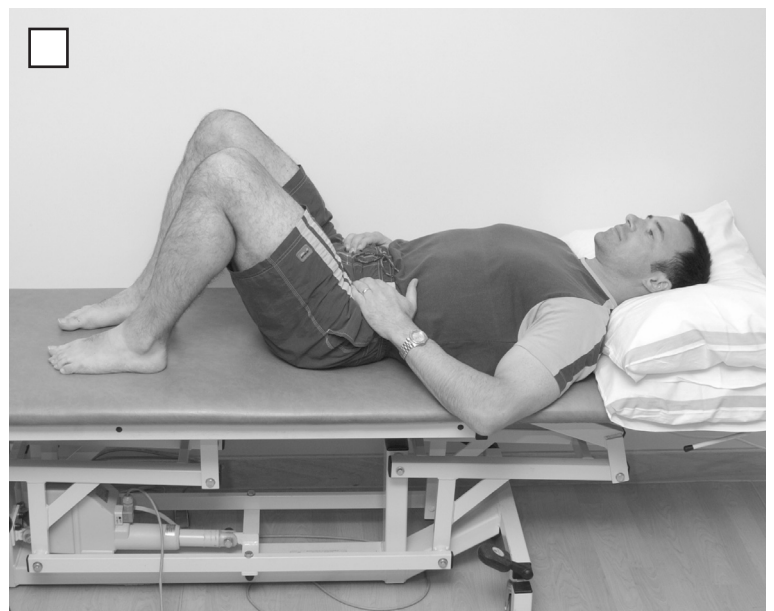
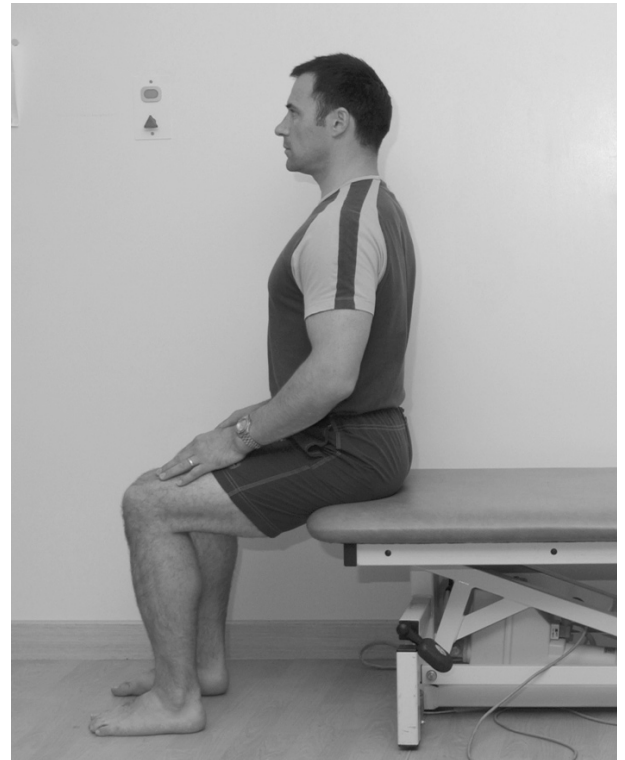
Core stability is important to help you move around but it is also very important for your posture and when you are static.

Trans abs muscle is located in the lower part of your stomach.

Trans abs exercise

Lie on your back with your knees bent. Press your fingers into the lower part of your stomach (on the right and left side) Gently draw in the lower stomach wall (think of pulling our stomach down off your fingers or alternatively pulling your stomach backwards towards your spine) You should feel the muscle gently push up against your fingers.

Hold for 10 seconds. Ensure that you continue to breathe normally. Repeat 10 times.



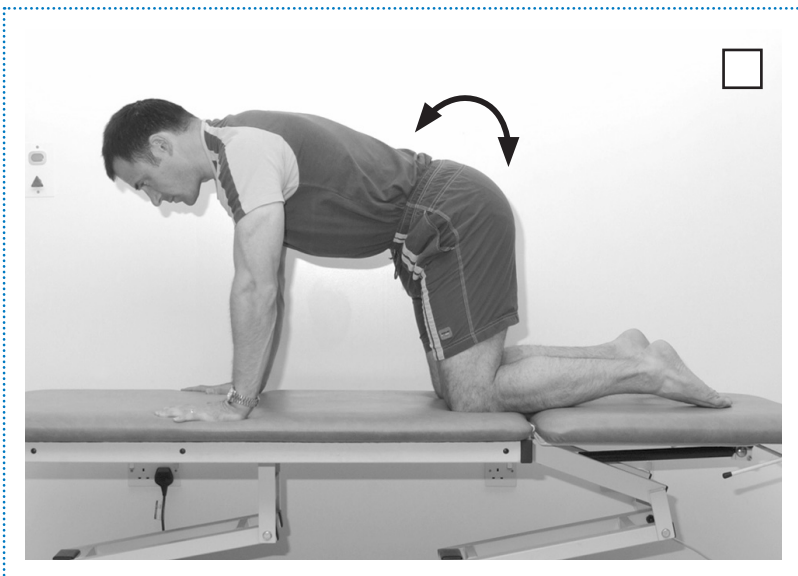


Pelvic Tilt in Crook Lying

Lie on your back with your knees bent. Tilt your pelvis backwards so that your back flattens onto the floor. Then tilt your pelvis forwards by pushing your tail bone into the floor to arch your back. Repeat 10 times.

Sitting

Start in sitting with your back straight. Roll your pelvis backwards to flatten your lower back. Then tilt your pelvis forwards to hollow the lower back. Repeat 10 times.



Four point kneeling

Kneeling with your hands on the floor. Tilt your pelvis slowly backwards to flatten your back. Then tilt your pelvis forwards to hollow your lower back. Try to prevent your chest from moving throughout the exercise. Repeat 10 times.

Pelvic tilts

Exercise 1

Lie on your back with your knees bent. Tilt your pelvis backwards so that your back flattens onto the floor. Then tilt your pelvis forwards by pushing your tail bone into the floor to arch your back.

Then allow your lower back to flatten slightly so that you are in the **Neutral Spine** position.

Repeat 10 times.

Exercise 2

Lie on your back with your knees bent. Tilt your pelvis backwards so that your back flattens onto the floor. Then tilt your pelvis forwards by pushing your tail bone into the floor to arch your back. Then allow your lower back to flatten slightly so that you are in the **Neutral Spine** position.

Now activate your trans abs muscle by drawing in your lower stomach. Hold for 10 seconds. Ensure that you continue to breathe normally.

Repeat 10 times.

Exercise 3

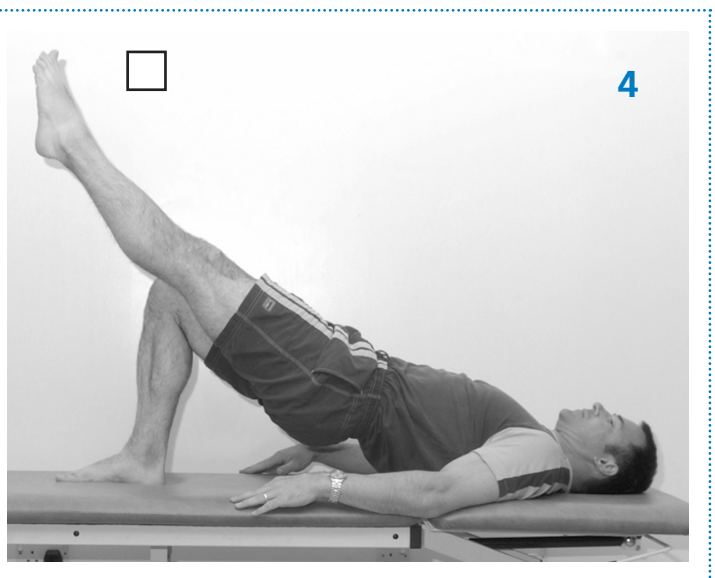
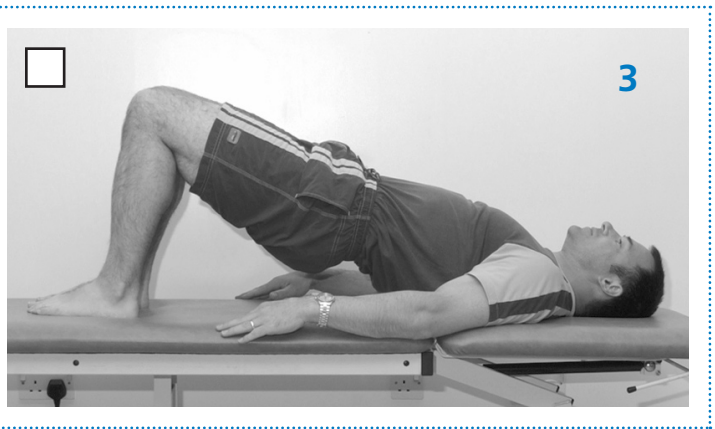
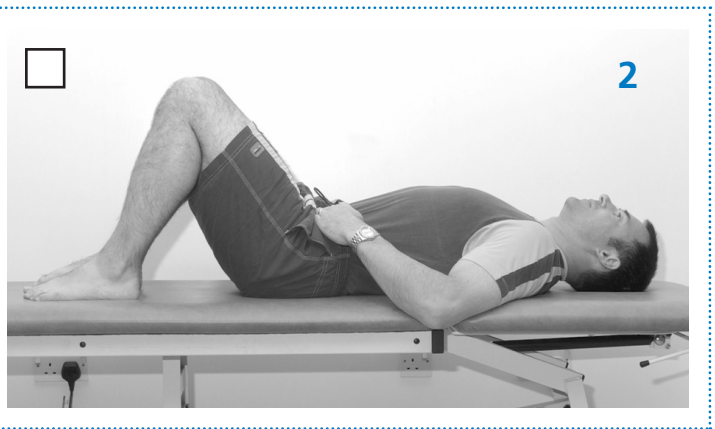
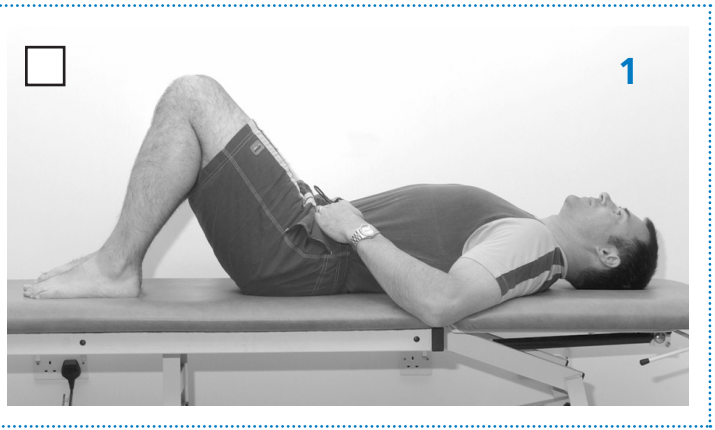
Perform the pelvic tilt with neutral spine. Now activate trans abs. Push through your knees and lift your pelvis off the floor. Ensure you maintain neutral spine and trans abs contraction throughout. Hold 5-10secs, repeat 10 times.

Exercise 4

Perform the pelvic tilt with neutral spine. Now activate trans abs. Push through your knees and lift your pelvis off the floor. Ensure you maintain neutral spine and trans abs contraction throughout. Now raise your right leg without allowing your body to twist.

Hold for 5-10 seconds.

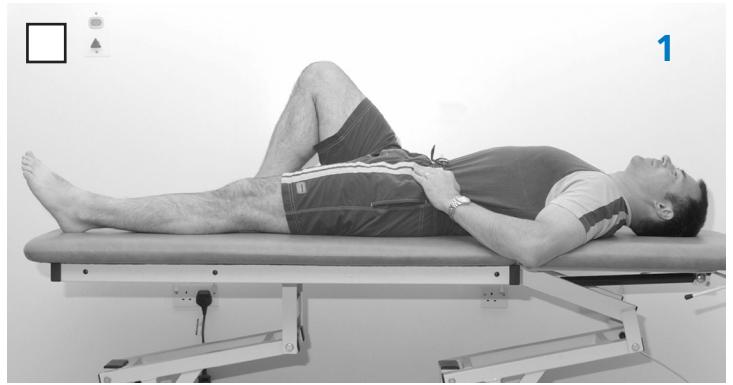
Repeat 5 times each leg.



Rotation dissociation

Exercise 1

Lie on your back with your hands on your pelvis. Bend your right knee. Your hip should dip down on the right side. Now try to level your pelvis by rotating it. Hold for 5-10 secs. Repeat 10 times on each leg.



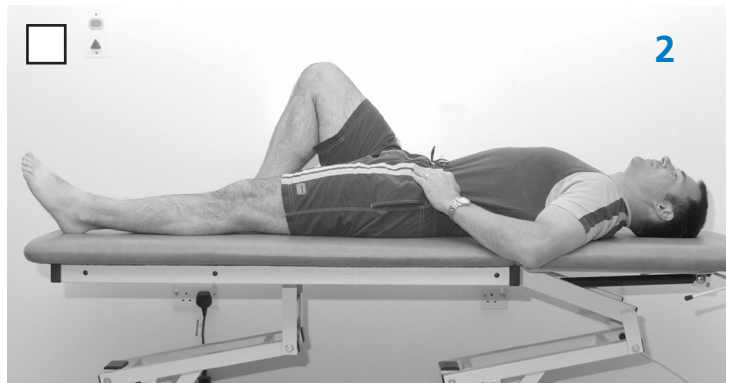
Exercise 2

Lie on your back with your hands on your pelvis. Bend your right knee. Allow the bent knee to roll out to the side.

Try to keep your pelvis level.

Hold for 10 seconds. Ensure that you continue to breathe normally.

Repeat 10 times on each leg.



Exercise 3

Lie on your side with both knees bent.

Your back should be in neutral spine position. Now activate your trans abs muscle by drawing in your lower stomach. Keep your feet together and slowly raise your knee. Ensure that your hip does not roll backwards.

Hold for 10 seconds.

Repeat 10 times on each leg.



Exercise 4

Lie on your back with your knees bent.

Tilt your pelvis slowly backwards and forwards then stop in neutral spine position. Now activate your trans abs muscle by drawing in your lower stomach. Push through your legs to raise your bottom and back off the floor.

Now raise your right leg without allowing your body to twist.

Hold for 10 seconds.

Repeat 5 times each leg.



Dead Bug

Exercise 1

Lie on your back with both knees bent, neutral spine position. Now activate your trans abs muscle.

Slowly raise one knee whilst maintaining trans abs and neutral spine position (try not to allow your pelvis to rotate).

Hold for 10 seconds.

Repeat with the opposite leg.

Perform 10 times with each leg.



Exercise 2

Perform exercise 1 then raise your opposite leg (with knee bent) so that both legs are off the floor.

Hold for 10 seconds.

Then replace one leg on the floor followed by the other.

Perform 10 times.

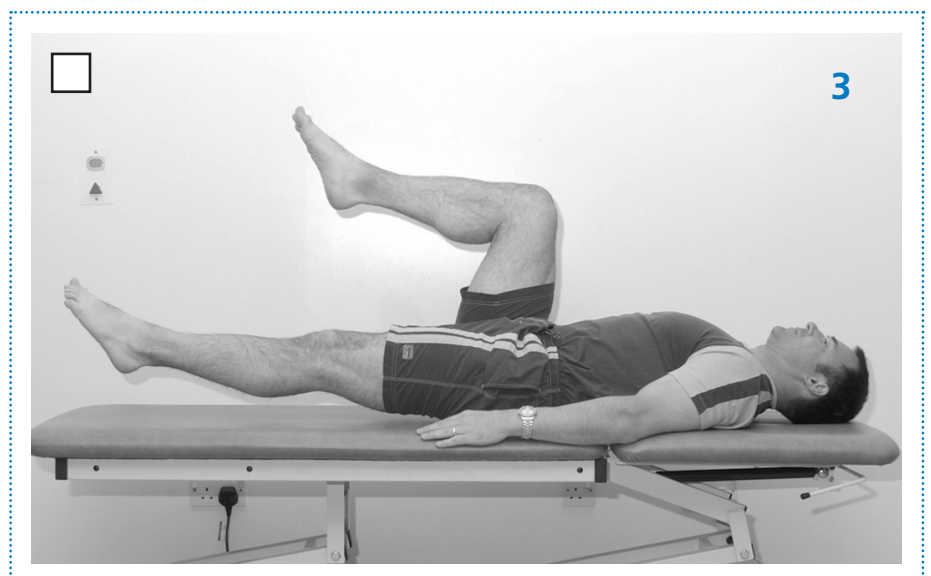


Exercise 3

Perform exercise 2 then slowly straighten one leg then return the leg to exercise 2 position.

Repeat with the opposite leg.

Repeat this 5 times each leg.



Prone

Exercise 1

Lie on your stomach with your back in neutral spine position. Now activate your trans abs muscle by drawing in your lower stomach.

Hold for 10 seconds. Ensure that you continue to breathe normally.

Repeat 10 times.



Exercise 2

Perform exercise 1 then raise one arm forwards and hold for 5 seconds. Maintain trans abs and neutral spine.

Repeat 10 times each arm.

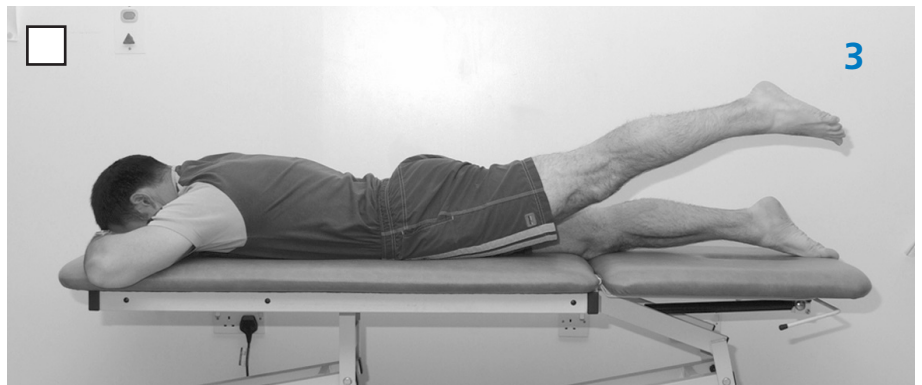


Exercise 3

Perform exercise 1 then raise one leg keeping the knee straight. Maintain neutral spine position and trans abs.

Hold for 5 seconds.

Repeat 10 times each leg.



Exercise 4

Combine exercise 2 and 3 together, ensuring opposite arm and leg are raised. Maintain neutral spine position and trans abs.

Hold for 5 seconds.

Repeat 10 times each leg.



4 Point Kneeling

Exercise 1

Kneeling with your hands on the floor. Tilt your pelvis slowly backwards and forwards. Find neutral spine position and activate your trans abs muscle.

Hold for 10 seconds.

Ensure that you continue to breathe normally.

Repeat 10 times.

Exercise 2

Perform exercise 1 then slowly straighten one leg behind you. Try to prevent your spine from twisting.

Hold for 10 seconds.

Repeat 10 times on each leg.

Exercise 3

Perform exercise 1 then slowly raise one arm and hold for 10 seconds. Try to prevent your spine from twisting.

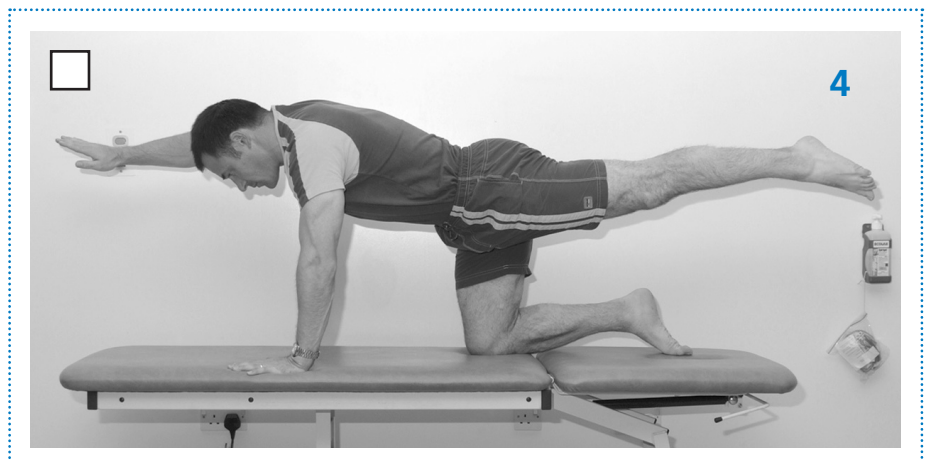
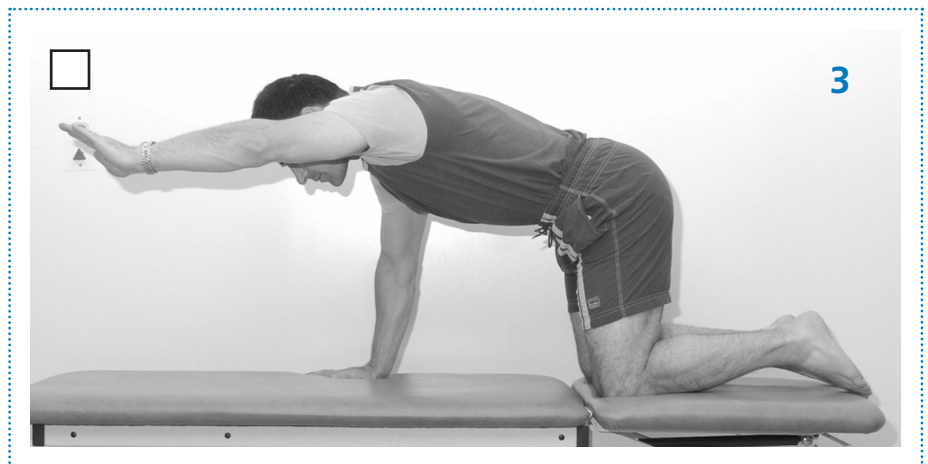
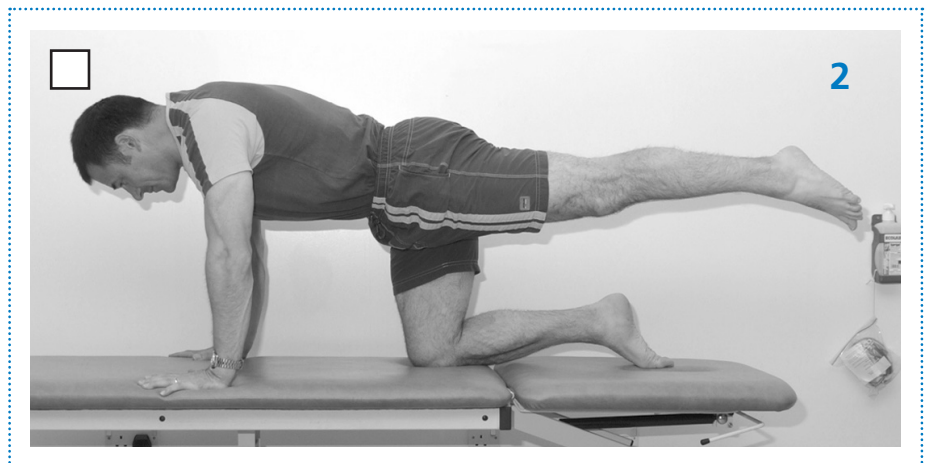
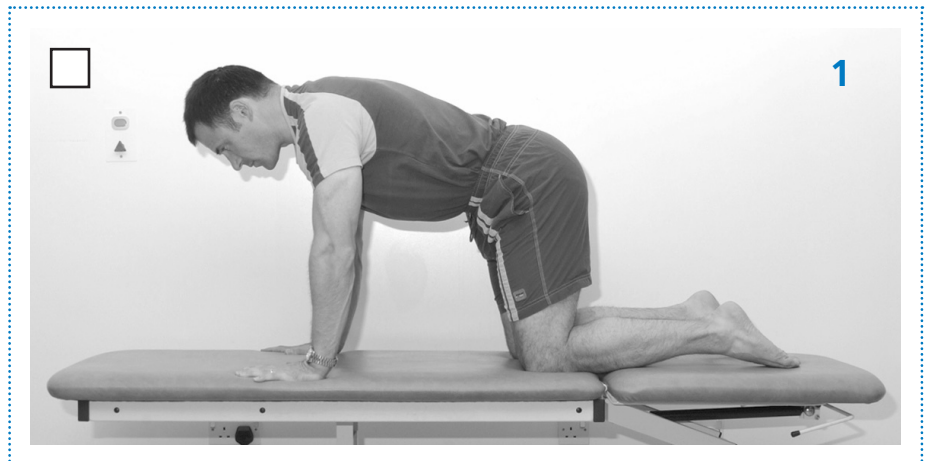
Repeat with the opposite arm.

Repeat 10 times each arm.

Exercise 4

Combine exercise 2 and 3 ensuring you raise opposite arm and leg. Try to prevent the spine from twisting. Hold for 10 seconds.

Repeat 10 times.



Miscellaneous

Prone Lying

Lie face down on a firm flat surface. Ensure that your back and leg muscles are completely relaxed.

Hold for 1 minute.

Repeattimes per day



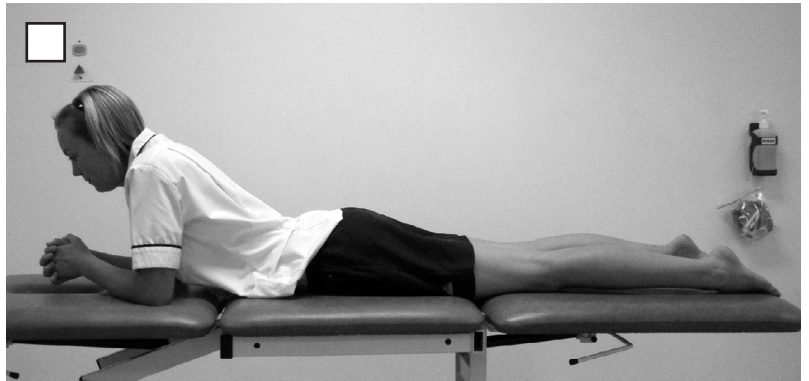
Prone on Elbows

Lie face down on a firm flat surface. Rest on your forearms, allowing your back to arch. Ensure your back and leg muscles are relaxed.

Hold for 5 seconds

Repeat 10 times

Perform times per day



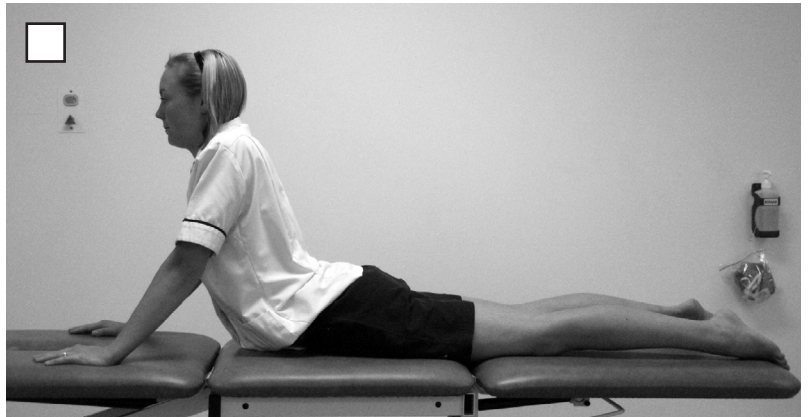
Extension in Lying

Lie face down on a firm flat surface. Place your hands under your shoulders and slowly straighten your elbows allowing your back to arch. Keep your back and leg muscles relaxed.

Hold for 5 seconds

Repeat 10 times

Perform times per day

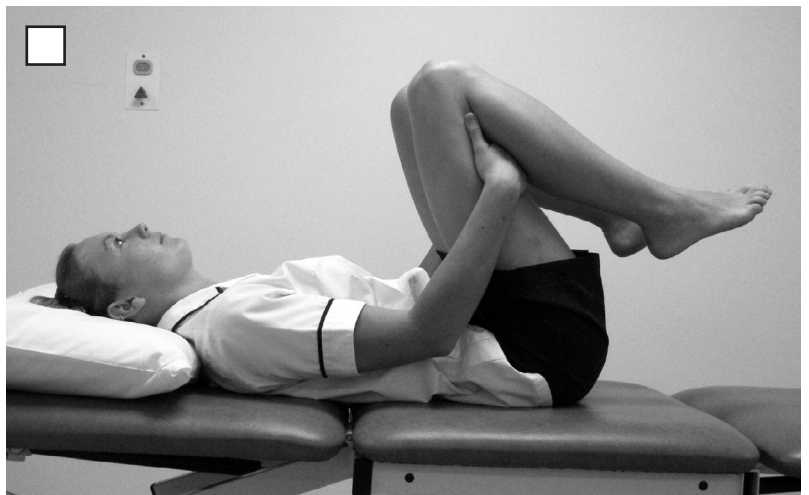


Flexion in Lying

Lie on your back on a firm flat surface. Take hold of your right knee and gently pull it towards your chest. Then do the same with your left leg until you feel a slight stretch in your lower back. Slowly lower your legs one at a time.

Repeat 10 times

Perform times per day

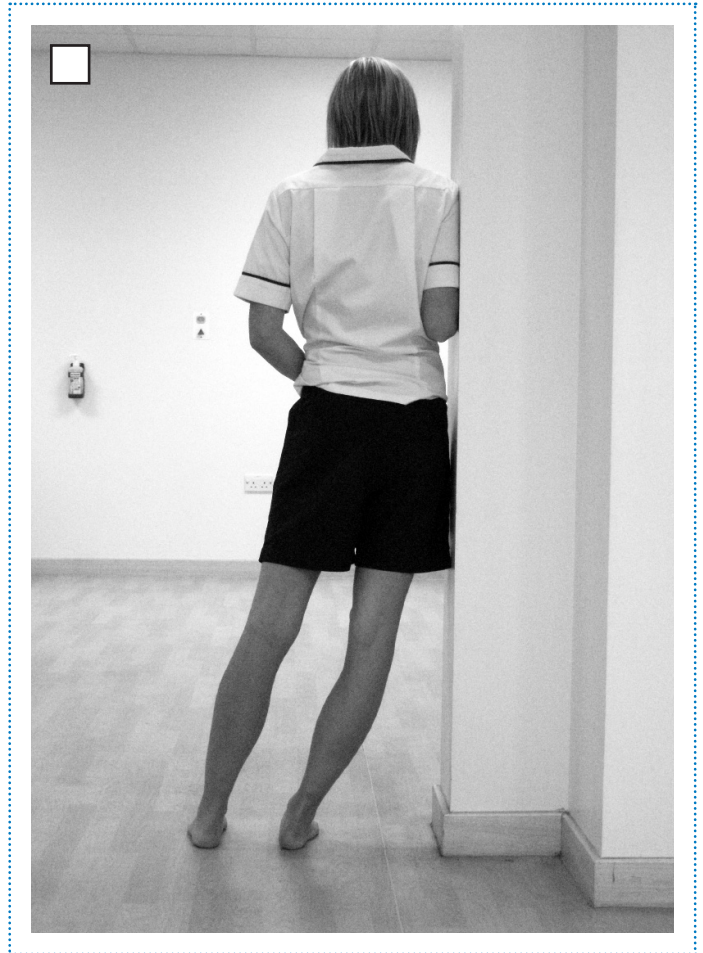
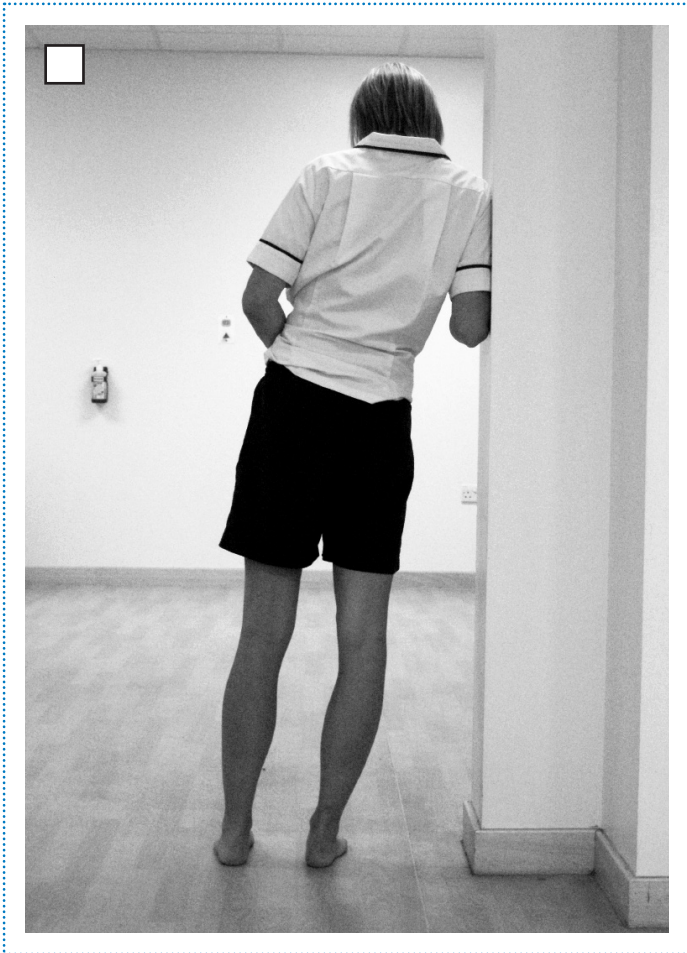


Slide Glides

Stand side on about 1 foot away from a wall. Place your shoulder and arm against the wall. Then slowly glide your hips towards the wall, pause, and then slowly move your hips back to the start position.

Repeat 10 times

Perform times per day

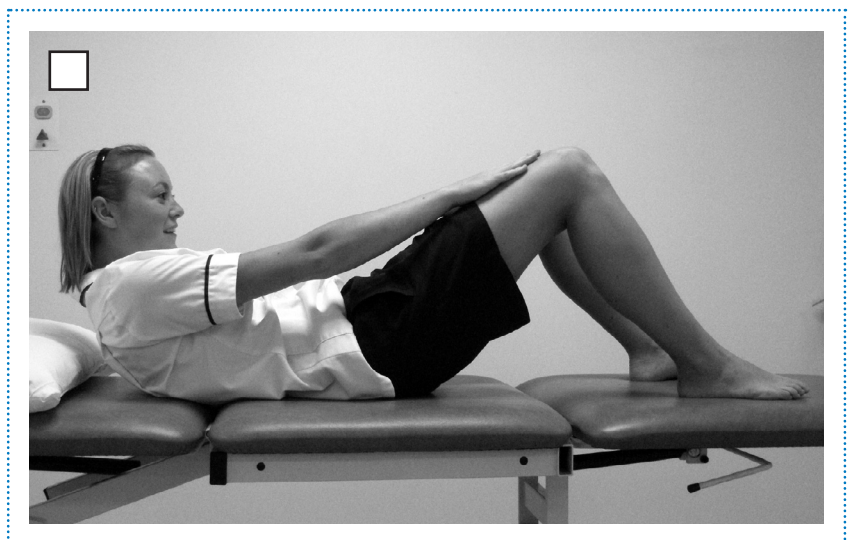


Mini Sit Ups

Lie on your back with your knees bent. Place your hands on your thighs and slowly slide your hands towards your knees so that your shoulders lift slightly off the floor/ bed.

Repeat 10 times

Perform.....times daily



Stretches

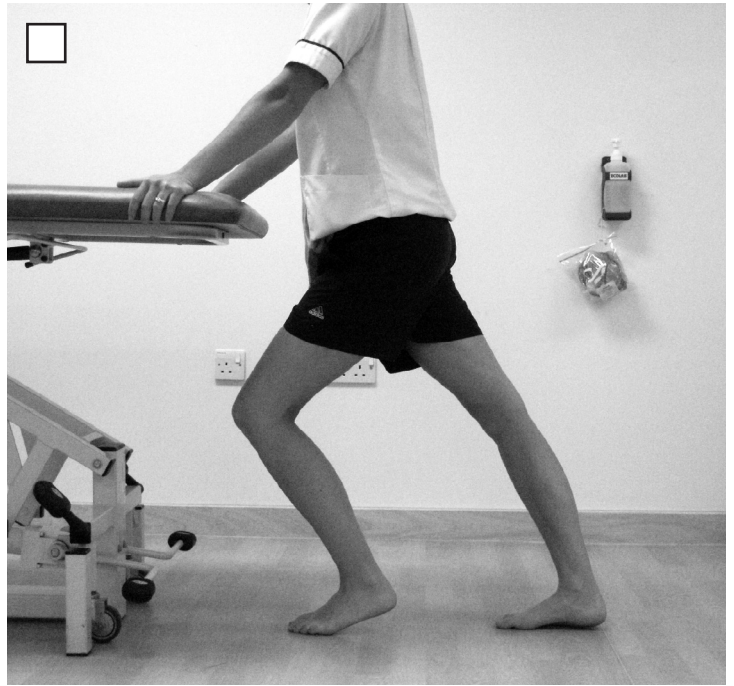
Calf Stretch

Stand with your hands against a table or wall. Step your right foot behind you with the heel on the floor and the toes pointing forwards. Lunge forwards bending your left knee. Keep your right heel on the floor.

Hold for 30 seconds

Repeat with the left leg

Perform 5 times per leg, 2 times daily



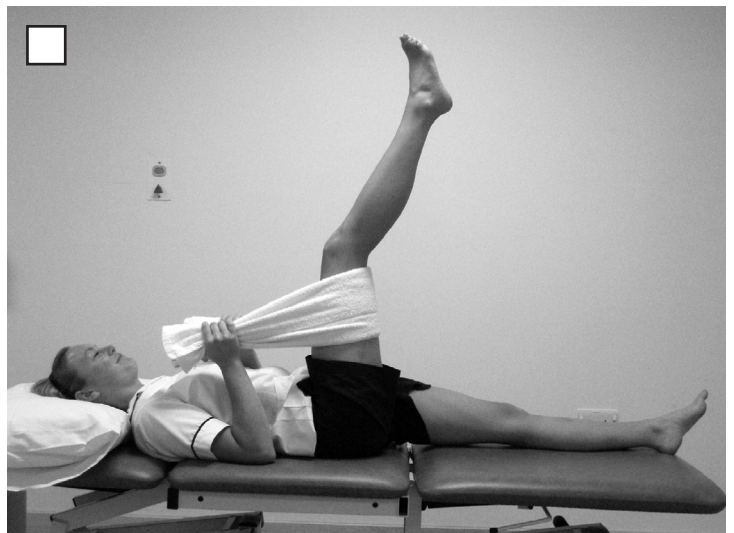
Hamstring Stretch

Lie flat on your back. Bend your right hip to a right angle. Place a towel behind the thigh then try to straighten your right knee keeping your foot relaxed.

Hold for 30 seconds.

Repeat with the left leg

Perform 5 times per leg, 2 times daily



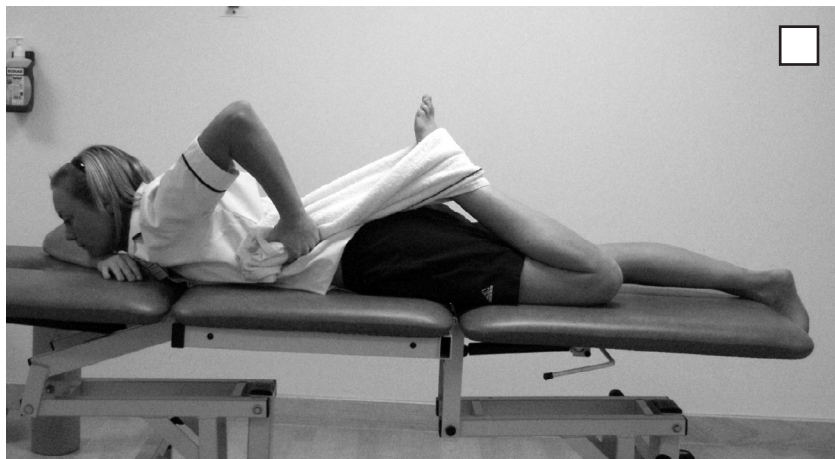
Quads Stretch (standing)

Stand with your hands against a table or wall. Bend your right knee behind you, take hold of your right ankle with your right hand (use a towel if you are unable to reach). Pull your heel towards the back of your thigh. Try to maintain neutral spine position.

Hold for 30 seconds

Repeat with the left leg

Perform 5 times per leg, 2 times daily



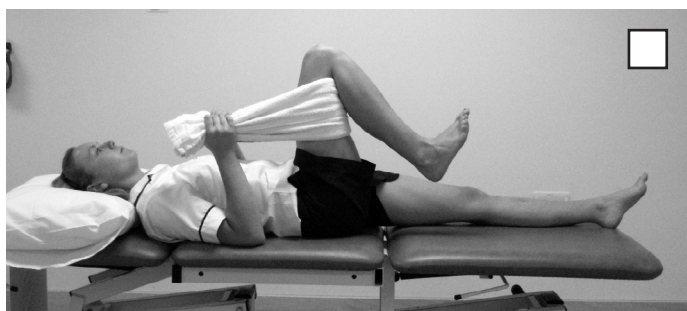
Quads Stretch (prone)

Lie face down. Bend your right knee and take hold of your right ankle with your right hand (use a towel if you are unable to reach). Pull your heel towards the back of your thigh. Try to maintain neutral spine position.

Hold for 30 seconds.

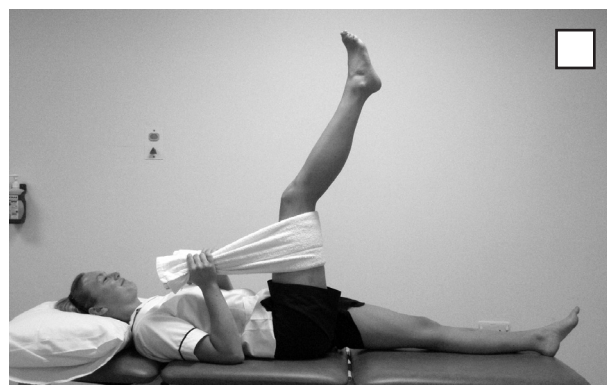
Repeat on the left leg.

Perform 2 times daily.



Sciatic Nerve Sliders

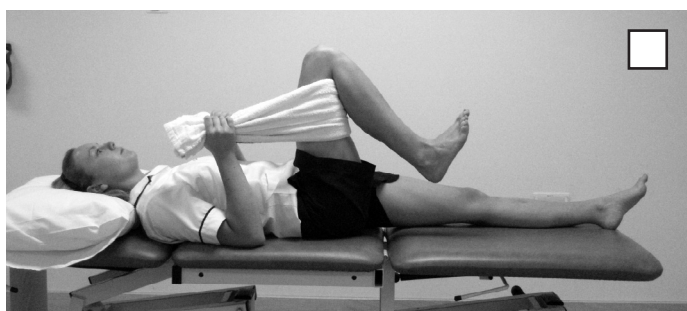
Lie on your back with your hip bent to a right angle. Start with your knee bent and your ankle pulled up towards you. Slowly straighten your knee. At the same time slowly point your foot away from you.



Stop before you feel any pain or stretching.

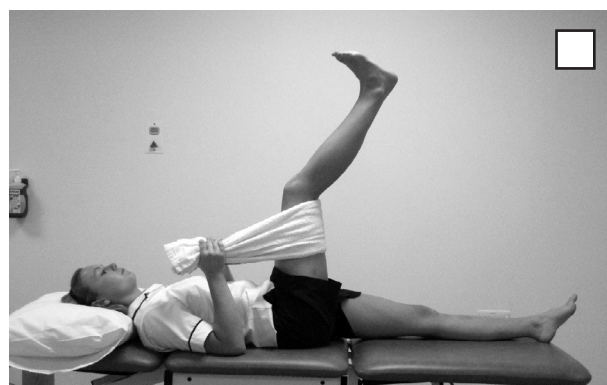
Repeattimes each leg

Performtimes daily



Sciatic Nerve Stretches

Lie flat on your back. Bend your hip to a right angle. Hold the back of your thigh (use a towel if you cannot reach). Pull your ankle and toes up and slowly attempt to straighten your knee. Stop when you feel a gentle stretch.



Hold forseconds

Repeattimes each leg

Performtimes per day

Author: Rehabilitation, Physiotherapy Department