



YOUR GUIDE TO

# SACRO ILIAC JOINT PAIN

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## Introduction

**Please take note of the following before starting any of the exercises in this guide:**

- The information contained in this guide is intended to assist in managing your recovery.
- This guide is based on the latest medical research in the field and contains the best advice available to the best of our knowledge.
- This guide is complimentary to other medical services and is not intended as a substitute for a health care provider's consultation. Never disregard medical advice or delay in seeking advice because of something you have read in this guide.

● Many people have found quick and lasting relief from their knee pain by acting upon the information provided, but everyone decides for themselves what to do with this information. Should you doubt a particular exercise in your situation, please consult your health professional.

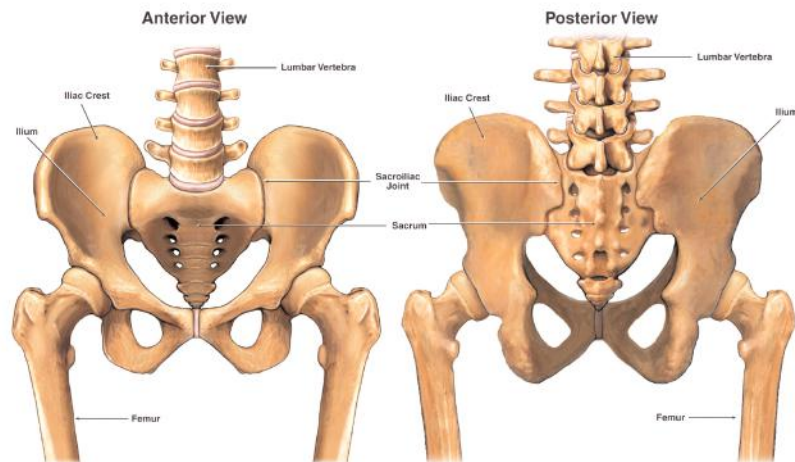
**When consulting your health professional, it is wise to take this guide with you to show them.**

## What is the Sacroiliac joint?

The Sacroiliac joints are small, firm joints that are located at the bottom of the back, forming the link between the spine and pelvis, and pelvis to the entire lower half of the skeleton. There are two sacroiliac joints (SIJ) in your pelvis that connect the sacrum (tailbone) and the ilium (large pelvic bone).

The sacroiliac joints do not move much, but are critical in transferring the load of your upper body to your lower body. There are torsional or twisting forces applied to the pelvic girdle when the lower limbs are moved. The limbs act like long levers and without the sacroiliac joints and

pubic symphysis (at the front of the pelvis joining the two pelvic (innominate) bones together) which allow limited movement, the pelvis would very likely be subject to a fracture. It is however common for the SIJ to become stiff or in some cases glide forwards or backwards, which is often referred to as a twisted pelvis. Muscles and ligaments surround and attach to both the front and back of the SI joint. Much of the integrity of the joint depends on its ligamentous structure, which makes it very stable. These structures can however all become a source of pain and inflammation if the SI joint is dysfunctional.



## What Causes a Sacroiliac joint pain?

- **Injury** is one of the most common causes. The injury can come from a direct fall on the buttocks, a motor accident or even a blow to the side of your pelvis. The force of these injuries can injure the ligaments around the joint. Ligaments are the tough bands of connective tissue that hold the joints together. Injury to the ligaments can lead to excessive movement in the joint and result in wear and tear as well as pain from the degenerative changes. Injuries can also occur directly to the articular cartilage that serves to protect the joint, by preventing bone on bone contact and providing shock absorption. Injury to the articular cartilage will also, over time, lead to degenerative arthritic changes in the joint.

- **Child Birth.** Women are at risk for developing SI joint problems later in life due to childbirth. During pregnancy, female hormones are released that allow the connective tissues in the body to relax. The stretching during the process of birth results in changes to the SI joints, making them "hypermobile". Over a number of years, these changes can eventually lead to wear-and-tear in the joint (osteoarthritic changes).

- **Overuse:** Softening and lengthening of these ligaments may also occur with prolonged bending or lifting. In most cases the mechanism of injury involves the act of straightening up from a stooped position.

- **Differential diagnosis:** Pain that is caused by trigger points in the piriformis, gluteus maximus, or quadratus lumborum muscles can result in pain being referred into the SIJ. Trigger points are specific, hyperirritable areas that are located in the muscle that produce pain both locally and in a referral pattern, and often accompany chronic injuries. Consulting with an allied health professional regarding your SIJ pain, will ensure that you are given a full assessment, during which differential causes for your pain such as trigger points can be identified and effectively treated.

### SYMPTOMS

SI joint problems have numerous symptoms with the following being the most common:

- Back pain - particularly low back pain
- Buttock pain
- Thigh pain
- Sciatic-like pain - pain that travels from the sciatic nerve in the lumbar region into your buttocks, back of the thighs, and sometimes calf and foot. The pain is typically caused by irritation of the nerve roots that join outside the spine to make up the sciatic nerve. You might feel numbness, tingling, or burning sensations.
- Difficulty sitting in one place for too long due to pain

# What treatment can I expect?

Sacroiliac joint inflammation tends to respond well to conservative therapy. The primary step in treatment is to avoid the activities that cause the symptoms.

● **Physical Examination:** Your health care provider will want to ask you some questions regarding previous injury, type of pain, the pain distribution, whether the pain disturbs your sleep patterns etc. Following the detailed history a full examination, including specific tests will be done to determine a diagnosis.

● **X-ray:** An x-ray may be recommended if your clinician is unsure of whether SIJ dysfunction is the cause of your pain. An x-ray will not be able to show any movement in the joint, but will be able to rule out any other possible causes for your pain

● **Medical interventions:** Often, oral medications can be quite effective in the acute phase. Non-steroidal anti-inflammatory drugs (NSAIDs) are often used in this phase with good results. In the first 24-72 hours, a muscle relaxant can be quite effective if a myofascial (muscular) component to the pain is present. In some cases a fluoroscopic injection into the joint is suggested if the diagnosis is not confirmed. In this procedure, a

numbing medication (like Novocaine) is injected into the SI joint. If the injection alleviates the symptoms, then the test is positive for the sacroiliac joint as a source of the problem.

● **Physical therapy:** This focuses on pain control in the acute phase. Modalities such as ultrasound therapy, as well as hot and cold treatments can help in reducing pain. Deep tissue massage, myofascial release and muscle stretching techniques can also help. Mobilizing the sacro iliac joints will also aid in correcting the biomechanics of the joint, reducing the pressure on ligaments and thus reducing the pain. A rehabilitation programme will also be given and is essential in regaining stability in the pelvic region.

● **A Brace called a sacroiliac belt:** This can help with stabilization. The belt wraps around the hips to squeeze the SI joints together. This supports and stabilizes the pelvis and SI joints. These belts are however only used to aid the rehabilitation process and should not be considered a cure for the problem. It is essential to combine wearing the brace with a good strengthening and stability programme.

● **Surgical intervention:**

Surgical intervention is rarely used for non-traumatic SIJ pain. Surgery is considered only in patients with chronic pain that has lasted for years, has not been effectively treated by other means, and has led to an extremely poor quality of life. The procedure is a fusion across the joint; however, although the surgery has been reported to be beneficial in selected cases or small case series, no randomized controlled study has shown reliable pain reduction with SIJ fusion.

● **Other treatments:** these can include cortisone injections, manipulation and acupuncture.

**RECOVERY AND MAINTENANCE:**

Often, SIJ injury leaves patients with significant de-conditioning and muscle imbalances. These functional muscular deficits are often present before the injury and may have predisposed the patient to injury.

Physiotherapists will aim to provide you with the appropriate tools that will help to improve the stability of the sacroiliac joint. This is accomplished by vigorous exercise programmes starting with correcting mechanical or leg length asymmetries if they are present, stretching the tight lumbar-pelvic muscles as well as muscle strengthening and pelvic stabilization exercises.

Strengthening of the core muscles which surround the spine can be achieved in various ways. Recently, Pilates training has become very popular for this purpose, but it is important that you go to classes that are run by a professionally trained instructor.

After the pain resolves and you have regained sufficient strength, therapy should be transitioned from the therapy office to the gym or home gym. The therapist would guide you through a home or gym programme which you should follow at least 3 times per week to prevent recurrences.

# What exercises should I do?

It is important that you are aware that this is a general exercise programme for a Sacro iliac Joint pain, which can

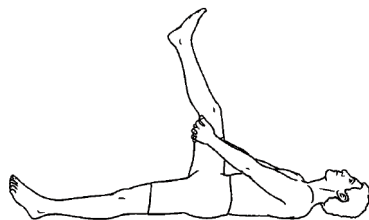
be adjusted depending on advice that you have been given by your health professional on assessment.

## Exercises phase 1

- Keep all exercises in your pain free limits. **Trying to work in painful ranges will only prolong your recovery.**
- If you experience pain during any of the exercises, decrease the intensity of the exercises by:
  - decreasing the number of sets
  - decreasing the number of repetitions
  - decreasing the range of movement
  - decreasing the resistance
- Do all exercises slowly and breathe normally.
- Progress gradually according to your own level of comfort.
- Following exercise, stiffness or fatigue may result but should not last longer than 24 hrs. The symptoms of your injury should not be aggravated.

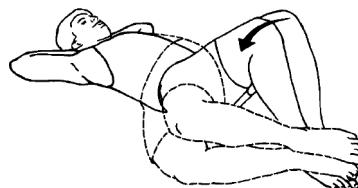
### STRETCHES

- Repeat each of these stretches **3 times** (on both sides if necessary).
- Hold each stretch for at least **30 seconds**.
- Hold a steady stretch, **do not bounce**.



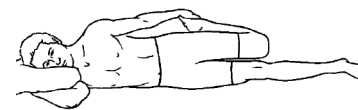
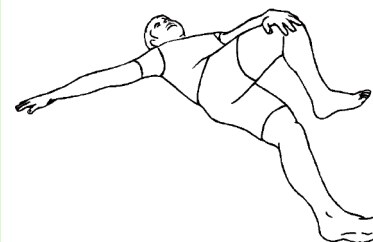
#### HAMSTRING STRETCH

Lying on your back, one leg straight and one knee bent. Raise the bent leg up towards your chest until your knee is in line with your hip. Now straighten the knee. You should feel a stretch at the back of your leg. You can use a towel if necessary to aid you in lifting your leg for the stretch.



#### SPINAL TWIST

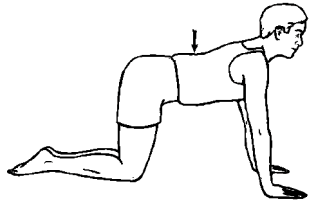
Lying down on your back, your arms outstretched and your knees bent. Gently roll your legs over to one side while turning your head to the opposite side. Hold for 20-30 seconds and then roll over to the other side. If you cannot feel the stretch along your spine, bring your legs up closer to your body. This can be progressed in phase 2 by raising one leg up and over the other one, placing your opposite hand on the top of your knee. Gently press it to the floor as you keep your shoulder on the floor with arm outstretched. Look in the direction of the outstretched arm.



#### QUADRICEPS

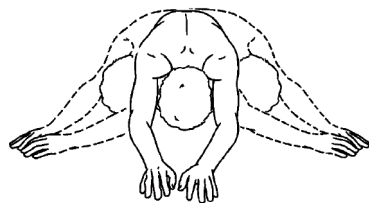
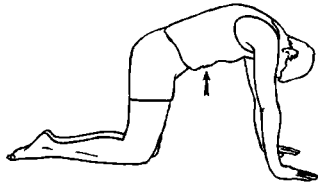
Lying on your right side, your right arm extended up to cushion your head, use your left hand to grasp your left ankle as you bend your left knee backwards. You should feel the stretch along the front of your thigh. It is important to keep the other leg bent at both the hip and the knee, so as not to hyperextend your back. A towel can be used to aid you in this stretch if you are unable to reach your ankle or bend your knee too far.

## Exercises phase 1 (continued)



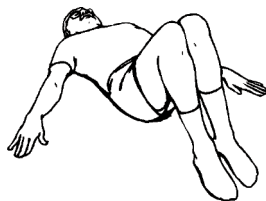
### CAT CURL

On all fours, with hands under shoulders and knees under hips. Start in a table position with hip bones facing the floor. Breathe in as you let your spine curve inwards i.e. move your belly towards the floor, pull your shoulder blades together and lift head up. Breathe out as you tuck your chin in and curve your back upwards towards the ceiling. Don't hold each position and make sure that you go slowly up and down your spine one vertebrae at a time. Repeat 5-10 times in each direction.



### MID BACK STRETCH

Sitting back on your heels, push your chest towards the floor, reaching forward as far as you can. Now move your hands to the left and hold, then around to the right and hold.



### LUMBAR MOBILITY ROTATION

Slowly move knees from side to side in a small, pain free range of motion. Allow low back to rotate slightly.

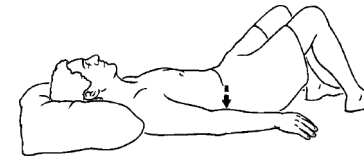


## STRENGTHENING EXERCISES

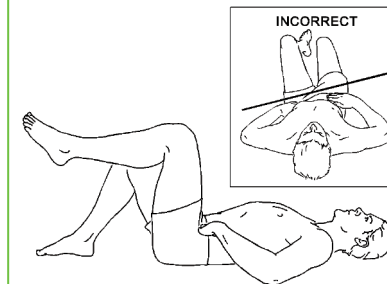
- Do each exercise within your pain free zone.
- Follow hold and repetition instructions within each exercise

### NEUTRAL AND TA/PELVIC FLOOR STABILITY EXERCISES

Lying on your back with your knees bent. Find your neutral pelvic position, which is mid way between

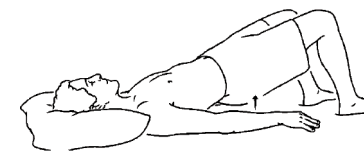


your back being completely flat on the floor, and completely arched. In neutral your hips should be facing the ceiling. Now pull your belly button towards your spine (i.e. contract your Transverse Abdominus muscle or TA), without changing your pelvic position. You should be able to continue to breathe throughout the contraction. Hold for 10 sec. Repeat 10 times



### SINGLE LEG LIFT

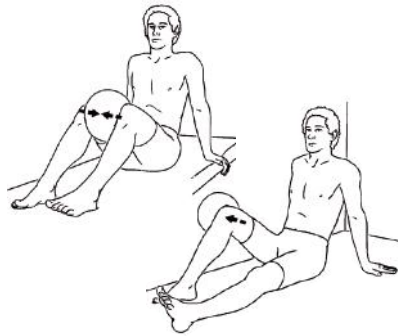
In the above position i.e. with your pelvis in neutral and TA contracted, slowly lift one foot 20cm off the floor. Make sure that you keep the spine in neutral and pelvis stable throughout the movement. Repeat with the other leg. Alternate legs 5 times per side.



### BRIDGING

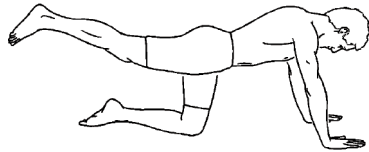
With your pelvis in neutral and TA contracted (pull belly button to spine), slowly raise buttocks from floor, keeping your pelvis stable and body in a straight line. Hold this position for 10 seconds and repeat 10 times.

## Exercises phase 1 (continued)



### BALL SQUEEZING AND PUSHING

Lying on your back, both legs bent, feet flat on the floor. Place the ball (or pillow) between your legs and squeeze. Hold for 10 seconds and repeat 10 times. Now place the ball (or pillow) between your left leg and a wall. Press out against the ball, holding the position for 10 seconds. Repeat 10 times.



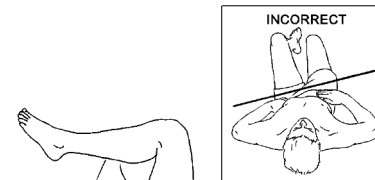
### SUPERMAN

Keep back flat with knees under hips and hands under shoulders. Pull your belly button towards your spine, without moving your back, and slowly raise one leg out behind you. Do not arch your neck or lower back as you raise your leg. Hold for 10 seconds and repeat 5 times each side.

## Exercises phase 2

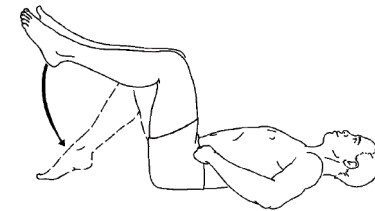
### STRENGTHENING

- Follow the recommended sets and reps within each exercise. If you are unable to do as many as recommended to start, then reduce to what you can do and build up slowly.
- Do each exercise within your pain free zone.
- Perform each exercise on both sides



### LOWER ABDOMINAL STRENGTH AND STABILITY EXERCISE

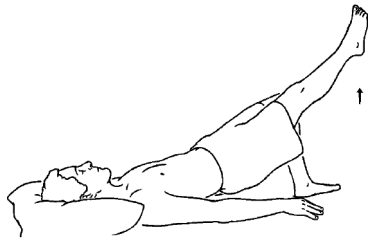
Lying on your back with your knees bent. Pull the pelvic floor muscles up (i.e. contract the T.A.) whilst keeping the spine in neutral. Now lift one foot off the floor and rise to hip height. Keep it here while you raise the other leg to the same position. Now return one leg at a time to the floor. Each movement should take 5 sec.



If you manage to maintain a neutral position with the above, try and lift both your feet off the floor at the same time to hip height and hold this position for 5 seconds. Lower the feet slowly, keeping the T.A. tight and pelvis in neutral throughout the movements. Repeat 5-10 times.



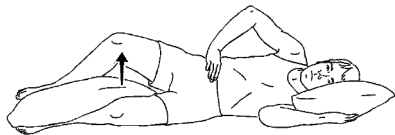
## Exercises phase 2 (continued)



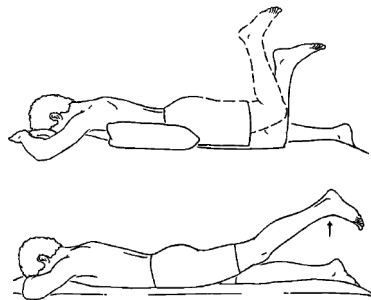
### BRIDGING WITH ONE LEG EXTENDED

Lying on your back, bend both knees to 90° with your feet flat on the floor. Tighten T.A. and lift your pelvis and lower back off the floor. Now lift one foot off the floor, hold for 10 sec, put it back down, repeat with the other foot, and then relax completely. Begin again. Keep the T.A. and Glutes tight throughout the movement to keep the pelvis stable and without dropping to the one side. Repeat 5 times per leg.

**GLUTES WITH THERABAND:**  
Assume a side lying position with the knees bent and a black theraband tied around both knees.

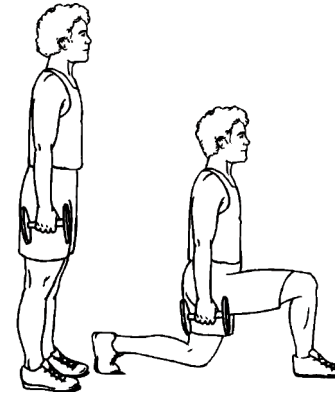


Keeping the feet together, lift the top knee up against the band as high as possible without the hips rolling backwards i.e. hips stay square and forward. Hold for 5-10 seconds. Repeat 10 times on each side. This can be done without a band if you cannot get one from your physiotherapist or local sports store.



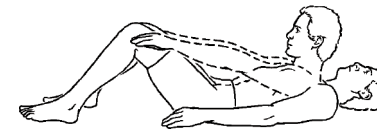
### PRONE HIP EXTENSIONS

Lie face down with abdominals tight. Bend your knee to a right angle and lift your foot towards the ceiling squeezing the glutes (buttocks). Hold for 5-10 sec. Repeat 10 times per leg. Now try the same exercise with a straight knee, just repeating 2 sets of 10 reps on each side.



### LUNGES

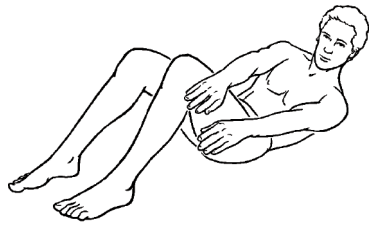
Start in a neutral body position (i.e. be aware of your pelvic position, ensuring your hips are facing forwards). Step forward onto your leg, keep back heel off the ground and bend both knees to 90°. Ensure that your T.A. is tight and that your hips are level. Return to the starting position. Repeat 10 times starting with the one leg and then 10 times starting with the other. Progress this to walking lunges.



### ABDOMINAL CURLS

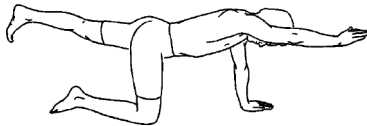
Lie on your back with your knees bent and your arms out in front of you, resting on your thighs. Pull your belly button towards your spine and lift your head and shoulders off the floor, moving your hands towards your knees. Repeat 10 times. Gradually progress this by rising further off the floor towards your knees

## Exercises phase 2 (continued)



### DIAGONAL CURL-UP

With arms at sides, find a neutral position in your pelvis. Raise head and shoulders, rotating to one side as shoulder blades clear floor i.e. right shoulder towards left knee and vice versa. Make sure you keep your neck stable with your chin tucked in i.e. not poking forwards. Repeat 10 times to each side. Gradually progress this by rising further off the floor towards your knees.



### SUPERMAN

Keep back flat with knees under hips and hands under shoulders. Pull your belly button towards your spine, without moving your back, and slowly raise one leg out behind you. Now try and raise the opposite arm at the same time. Do not arch your neck. Hold for 10 seconds and repeat 5 times each side.

## Contact us

This guide is designed to assist you in the self-management of your injury/condition.

We are here to assist your recovery in the shortest but safest possible time. If you have any uncertainties or queries regarding the information, please do not hesitate to contact us on:

Phone 017890400999 / 07870166861

[www.mdphysiotherapy.co.uk](http://www.mdphysiotherapy.co.uk)