

# **SCIATICA**

**SYT Paper  
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## Case studies

### a - initial intake

#### **Jenny H**

Late 20's. She is about 5'4" and has a full figure, not fat. She has broad shoulders and chest. She has full, curvy figure I guess she is about 120lbs.

She is a construction project consultant and has a long commute and a long workday. This will cause a vata imbalance for which she should get plenty of sleep, however, she tends to sleep only for 4 or 5hrs per night. Drinks high caffeine energy drinks, thus increasing pitta. These imbalances will lengthen the times required for SYT to have positive effects.

Suffered from sciatica for 8 years. At worst she rates it at 8 out of 10. Has to spend the day in bed and take painkillers. Jenny's brother died 8 years ago. She does not believe there is a connection. She does not feel she has to still grieve or come to terms with it. She feels that she has dealt with it and she is fine now. I would like her to look at that, and talk to some one close to her or a therapist. It would be interesting to see if doing so would have a positive affect on her sciatica symptoms. I have not been able to discuss this further because she has become distant. Since our last meeting she gradually stopped attending my classes and I have not noticed her at the studio attending other classes. I have emailed her on occasion but have received no reply. Possibly I was getting to close!

She has been married for a few years and I feel that she is happy in her marriage except for the amount of time her husband is away from home. I get the feeling that she would prefer him to have a schedule that had some regularity to it and gave him more time at home.

She feels the sciatica it predominately in the right buttock but sometimes in the right sacrum and thigh.

She has found that sitting, driving, running, playing tennis, surfing and bar tending (leaning forward from the waist) increase the symptoms.

Initial readings show a slightly raised right hip and a slight left lumbar curve. SI joint appeared to be static.

### B – physical assessment notable changes are in **bold**

<b>September ROM</b>	<b>Lt/Rt</b>	<b>Strengthen</b>	<b>Stretch</b>	<b>Dec. ROM</b>	<b>Lt/Rt</b>
<b>Supine</b>					
Hip			Hip		
Flexion, bent	<b>115/130</b>		√ left	Flexion, bent	<b>122/132</b>
Flexion, straight	<b>70/85</b>		√ left + righ	Flexion, straight	<b>82/82</b>
Flexors test length of Psoas & rectus femoris	*		√ left + righ	Flexors	#
External rotation	70/69			External rotation	73/67
Internal rotation	<b>28/24</b>		√ left + righ	Internal rotation	<b>38/36</b>
<b>Prone</b>					
Knee flexion	<b>142/150</b>			Knee flexion	<b>150/150</b>
Hip ext. rotation	<b>52/40</b>			Hip ext. rotation	<b>52/54</b>
Hip Int. rotation	25/24		√ left + righ	Hip Int. rotation	28/24

September MT	Lt/Rt	Strengthen	Stretch	December MT	Lt/Rt
<b>Supine</b>					
Hip			Hip		
Flexion	3/2	√ left + right		Flexion	4/3
Sartorius	3/4	√ left		Sartorius	5/4
Flexors with ab. rectus	2	√		Flexors	3.5
External rotation	4/5	√		External rotation	5/4
Internal rotation	4/5	√ left		Internal rotation	4.5/4
<b>Prone</b>					
Knee			Knee		
Flexion	3.5/4	√ left		Flexion	3**/4
Hip			Hip		
Extension	4/4			Extension	5/5
Gluteus maximus	3/3	√ left + right		Gluteus maximus	4/4
External rotators	3/3	√ left + right		External rotators	4/4
Internal rotators	4/2	√ right		Internal rotators	4/3

\* quads are tight, foot moves approx 2 inches

# quads tight on right side, foot moves approx 2 inches

**C - Summary of Findings**

Strengthen	Stretch
Iliopsoas	quadriceps
rectus femoris	right external hip rotators
abdominus rectus	internal hip rotators
gluteus maximus	
hamstrings	
internal and external rotators	

Spinal extension showed the spinal erectors to be very strong. From this I concluded that the spinal disks were unlikely to be causing the sciatic pain.

**D - Recommendations**

SI joint freeing exercise x12 reps to free up the SI joint and improve internal hip rotation

JFS exercise #5 x6 reps to increase internal hip rotation ROM and strengthen internal and external rotators.

Rolling bridge x12 reps to strengthen hamstrings, gluteus maximus

Locust x 5 to strengthen the gluteus maximus and the hamstrings and the frog pose holding heels in towards buttocks to stretch the quadriceps.

Gomukhasana to strengthen psoas, improve the internal rotation by releasing the external rotators. Supine external rotation ROM is great, however due to Jenny feeling the most pain in the

buttock; sitting and driving aggravating the sciatica and the positive feed back from the piriformis massage (see appendix) I feel it is valid to try to release the deep external rotators.

Drink 1/2 gallon of water per day

Reduce time sitting, tilt seat, use a wedge, sit in hero pose. When surfing to sit in hero pose on the board.

Relax, reduce stress. Lay in Savasana for 10 to 15 minutes when she gets in from work

Massage piriformis, see appendix pg 16

Avoid straight leg forward bends, bend knees. Standing forward bends would be better than seated.

### **3 months later**

Internal hip rotation improved

Hamstrings lengthened

Most of the weak muscles have strengthened.

Exercises

Prone SI/ hip movement/ groin stretch to work the gluteus maximus and free up the SI joint. See appendix pg 16

JFS #5 focus on internal rotation and hip flexion for psoas strength

Upward stretched legs walking with bend at knee to strengthen the psoas and abdominus rectus

Psoas strengthening exercise. See appendix pg 17

Locust.

Gomukhasana

### **E – Summary of results of recommendations**

Drinking more water and less energy drinks

Finding time to relax more, sleeping in during weekends. Finding that the practice has enabled her to relax, let go

Believes the exercises have helped a great deal. Played in a weekend tennis competition and was amazed she could walk afterwards! Appears to have a more positive attitude towards her condition. She never seemed to be especially negative or depressed by her sciatica but the improvements are exciting for her.

Understanding what to do and what not to do has helped increase awareness, to be more conscious, has reduced avidya!

Having said that, she still does not wish to consider that the death of her brother may be related to her sciatica.

<b>Strengthen</b>	<b>Stretch</b>
Iliopsoas no notable change	Quadriceps released
rectus femoris stronger	right ext. hip rotators released
abdominus rectus no notable change	internal hip rotators released
gluteus maximus stronger	
Hamstrings stronger	
Int. & ext. rotators stronger	

## Case study #2

**Jenni S.**

### **a – initial intake**

Mid 30's. She is about 5'8" and has a full hour glass figure. I would guess she is 150lbs. Jenni is a project manager, she works long hours, spends long periods of time sitting and drinks coffee.

Suffered with sciatica for 8 years. Once after an airline flight she could not walk and went to hospital. Work is stressful, and she feels that her lifestyle is quite hectic.

Experiences the pain predominantly in her buttock, sometimes in her thigh. Nearly always on the right side but occasionally changes sides after a chiropractic adjustment. The level of pain is sometimes acute and she is forced to take prescription painkillers in order to be able to walk. She also suffers bouts of colitis. This is quite often related to sciatica. Causes may be irregular diet, excess travel or suppressed fear.

She believes that sitting at work makes the sciatica worse and she finds it difficult to relax although final relaxation at the end of yoga class she feels is a benefit and she feels she does then let go.

Jenni has been attending my classes for some time and as a result I have gotten to know her. She is not married and does not have a partner, her family live out of state. She travels to see her family quite often. I feel she would like to have a close connection with someone, a partner who lives close by. I feel that this is missing from her life. She does have good friends close to hand. Initial readings show the right hip is high and rotated forward and the right foot is also forward. There is a slight left lumbar curve. SI joint moves down especially on the right.

### **b- physical assessment**

<b>September ROM</b>	<b>Lt/Rt</b>	<b>Strengthen</b>	<b>stretch</b>	<b>December ROM</b>	<b>Lt/Rt</b>
<b>Supine</b>					
Knee			Knee		
Flexion	<b>140/100</b>		√ right	Flexion	<b>130/140</b>
Hip			Hip		
Flexion, bent	<b>115/105</b>		√ left + right	Flexion, bent	<b>112/110</b>
Flexors test length of Psoas & rectus femoris	*		√ left + right	Flexors	#

External rotation	45/30	√ right	External rotation	48/38
Internal rotation	28/24	√ left + right	Internal rotation	29/30

<b>Prone</b>				
Knee flexion	120/130	√ left	Knee flexion	130/135
Hip ext. rotation	47/25	√ right	Hip ext. rotation	40/33
Hip Int. rotation	30/40	√ left	Hip Int. rotation	38/38

September MT	Lt/Rt	Strengthen	stretch	December MT	Lt/Rt
<b>Supine</b>					
Hip			Hip		
Flexion	4/4			Flexion	4/5
Psoas	**	√ left + right		Psoas	3/4
<b>Side</b>					
Hip			Hip		
Abductors	3/4	√ left		Abductors	4/4
Adductors	5/5			Adductors	3##/5
<b>Prone</b>					
Hip			Hip		
Hip ext. rotation	shakes	√ left + right			shakes
Hip int. rotation	3/4	√ left		Internal rotation	4/4.5
Knee			Knee		
Extension	5/5			Extension	4/4
Hip Extension	4/5			Hip Extension	5/4
Gluteus maximus	3/2***	√ left + right		Gluteus maximus	3.5/3

- \* tight quads, foot moved approx 3 inches
- # tight quads, foot moved approx 2 inches
- \*\* test incomplete pain/soreness experienced in the muscle, inner thigh during test indicates a weakness
- ## had a strain in the adductors at time of testing
- \*\*\*Right side difficult to test due to restricted external hip rotation

**c - Summary of Findings**

Strengthen	Stretch
psoas	psoas
quadriceps	right quadriceps
abdominus rectus	right external hip rotators
gluteus maximus	internal hip rotators
hip abductors	
internal and external rotators	

Spinal extension showed the spinal erectors to be very strong. From this I concluded that the spinal disks were unlikely to be causing the sciatic pain.

During internal and external hip rotation ROM and muscle testing her hamstring, gluteus area would shake. Giving support both physical and verbal and allowing the shake to work its way out would cause her to be tired but very relaxed and the ROM of the hips was greatly improved.

## **D - Recommendations**

SI joint freeing exercise x12 to free up the SI joint and hips

JFS exercise #5 x6 focusing on improving her external rotation and strengthening the hip abductors

Walking upward stretched legs. Can have a bend in the knee so as not to stretch the hamstrings and aggravate the sciatica. Strengthen the abdominus rectus, and the psoas.

Locust x8 to strengthen the gluteus maximus.

Reclined hero for 12 breaths to release the psoas and improve knee flexion

Groin stretch for 30 to 60 seconds to release the psoas and internal rotators

Gomukhasana to release the external rotators

Drink less coffee, switch to decaf.

Drink more water.

Try to sit less, use a wedge, tilt seat, try to sit in hero pose if possible rather than cross leg positions.

Jenni attends yoga classes about 4 times per week. I advised her to avoid or at least reduce forward bends, bend knee and be standing rather than sitting.

### **After 3 months**

SI joint has improved, it is now stationary as opposed to moving down.

Drinking more water and less coffee.

Changed jobs, now more travel, less pressure

JFS #5 but now with leg lifted slightly to build more strength in internal and external rotators, psoas and quadriceps.

Rolling bridge focusing on strength in abdominals, gluteus maximus. In poses involving hip flexion Jenni feels a pinch in the hip crease. Rolling bridge may help to open that area and improve flow of lymph.

Tailor pose (baddha konasana) to improve hip abduction and external rotation. Jenni used a strap to help her hold the pose for longer more comfortably.

Prone SI/ hip movement/ groin stretch See appendix pg 16. To improve the external rotation, and strength of the gluteus maximus. She felt the SI movement did not suit her, it did not feel natural. Elevating on blankets helped to some degree. I encouraged her to work on this prone exercise, tailor pose and the joint freeing exercise. These would improve her ability to do the SI movement and in time the SI movement did become one of her preferred exercises, all be it whilst watching the TV!

Acupuncture on right hip. Jenni tried acupuncture on the hip to free it up. She felt it did help but that allowing the leg to shake while being held in prone internal and external hip rotation brought about a greater release.

**E- Summary of results of recommendations**

The ROM and MT show an increase in the right knee flexion, and an increase in the left and right internal hip rotation. A strengthening of the internal hip rotators and the hip extensors. Greater mobility in the SI joint. However, what is much more significant is the differences that Jenni feels. An increase in strength and relief from the sciatica. A more nurturing attitude towards herself and a deeper calmness.

<b>Strengthen</b>	<b>Stretch</b>
Psoas stronger	Psoas cannot determine
Quadriceps weaker!	right quadriceps released
abdominus rectus unchanged	right ext. hip rotators released
gluteus maximus stronger	Left Int. hip rotators released
hip abductors stronger	
internal rotators stronger	

The following are Jenni’s responses to questions I have asked with regard to her sciatica and the work we have been doing.

o Prior: Symptoms are pain in right glut, often shooting down leg. Sometimes would travel to left, but not often. Pain was severe enough at times to require anti-inflammatory and pain medication. On a scale of 1 - 10, pain was often a 7. At times, could barely walk. I believe that sciatica is often an indication that my Ulcerative Colitis is in the process of flaring up. *During the intervening weeks Jenni’s doctor has told her that there is a connection between the ulcerative colitis and her SI/ sciatica. The colitis is an inflammation problem which may affect other areas of the body. In Jenni’s case she feels it in her SI joint and as sciatic pain. On occasion she would take pain medication to get relief, however her doctor has switched her to sulfur based pain medication because ibuprofen type pain medication will cause the colitis to flare up.*

o After: After about 6 weeks of working with you, the sciatica symptoms started to subside. Symptoms have not returned. Yoga therapy helped me to not only gain strength in my back/legs and mobility in my hips, but it helped me regain focus on my practice and overall health. I started to again attend classes more regularly, drank more water, less coffee (you’d be so proud) and sleep better. In addition to Yoga therapy, I believe the steroid (Prednisone) I am taking for Ulcerative Colitis and regular chiropractic visits have also positively contributed. *Steroids are not focused as to what part of the body they affect. A steroid injection for a shoulder injury can be administered in the buttock! It makes perfect sense that Jenni’s steroid treatment provides relief from her sciatica since steroids are given for inflammation conditions.*

What helped most/least: What helped most? Your consistent reminders to stay focused, do my home exercises, to drink more water and less coffee. Plus, the sacroiliac mobilization exercises which I more than quadrupled. They’re easy to do when watching TV, which helps. I didn’t omit anything on a regular basis. If I had limited time, I mostly left out the exercises I liked the least/the ones that were most uncomfortable. Gomukhasana and joint freeing exercise.



Shaking: I feel the shaking is in the back of the thigh half way between the hip and the knee. I hadn't noticed the shaking prior to our mobility testing. That's not to say that it wasn't there. I do believe it's still partially related either to the steroid I take or possibly to an uncreative colitis flare up. It's quite possible that it is caused by the added stress of both of these things, as well.

o Describe: the shaking is uncontrollable. When I shake, my first reaction is to try and make it stop as I hate the feeling of being out of control, as you well know. Shaking happens mostly when I am on my stomach and when my legs are either bent at the knee or raised in the air. Also when in seated forward bend.

o What helped most: putting pressure where shaking starts is most comforting. The warmth is calming and the pressure makes it feel a bit more under control

o After: After the session with Mukunda and our last session, I felt really relaxed, almost lethargic. Both times I actually drifted off, still hearing the noises around me but too tired to care. Can't pin-point any physical or emotional changes per say other than knowing that it's OK to let it shake and that it's actually a means of relieving stress. Plus, it's comforting to know that you have other clients who are experiencing the same thing. *Getting to a state of relaxation is bringing vata back into balance*

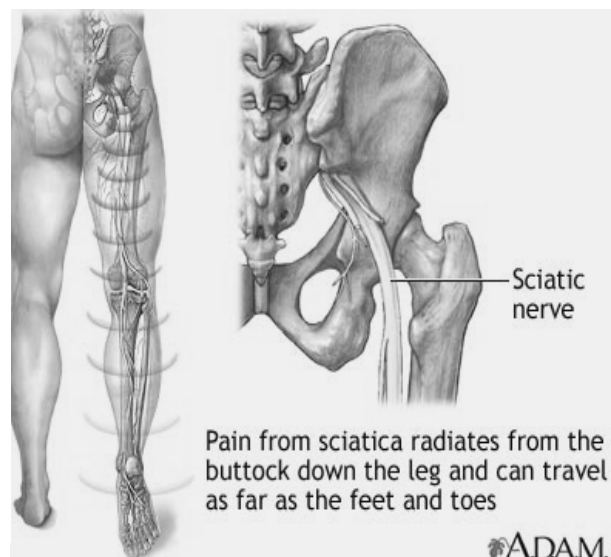
I think it is interesting to note that it was not exclusively the exercises that made a difference. Allowing Jenni to get to a place where she felt comfortable and able to relax and not worry about being in control. She said "I hate the feeling of being out of control!" To allow her self to let go, allow the shaking to work it's self out. This was huge. Sciatica sufferers tend to be highly strung, stressed out people. I now that discovering what will bring about relaxation and release is very important.

## 2 a) name and description of condition.

Sciatica is a condition where pain, numbness and/or weakness is felt anywhere from the buttock to the foot but most commonly in the buttock and back of the thigh.

The sciatic nerve is the largest in the body and exits the spine at L4, L5, S1, S2 and S3. The nerve emerges from the pelvis sometimes through the piriformis muscle or between the piriformis and the gemellus superior and runs down the back of the thigh on the adductor magnus. Slightly superior to the back of the knee the sciatic nerve divides into the tibial branch, which runs down the back of the lower leg and the peroneal branch (also known as the external popliteal or common fibular nerve) which goes to the front of the lower leg.

The condition is known as sciatica since it results from pressure on or restriction of the sciatic nerve.



## **b) gross and subtle body: common symptoms**

Sciatica sufferers may experience anything from a dull pain to an excruciating pain. The pain can be felt in both legs but in the majority of cases it will be felt on one side only. In the majority of cases no permanent damage occurs and symptoms only last a few days. Sciatica is classified depending on how far down the leg the pain extends.

Pain in the buttock = 1  
thigh = 2  
calf = 3  
foot = 4



Sciatic nerve and piriformis muscle

The irritation to the sciatic nerve can result from many things; Vertebral disk bulge may be placing pressure on the nerve, the nerve can get pinched between vertebrae, or it's passageways can become narrowed by arthritis or swelling of a sprained ligament. Tight or spasm in the muscles in the thigh or buttock such as the piriformis can put pressure on the nerve. Other causes include injury, infection, blood clot, abscess and tumors. However, the 3 most common areas for compression of the nerve are:

- 1) the lower back
- 2) the area of the piriformis
- 3) the mid, back of the thigh where the hamstring muscle splits laterally and medially.

compression of the spinal discs  
acute students this will include stick pose.

For the second cause one needs to release the piriformis, as contrasted with stretching it and the adjacent external hip rotators, which will aggravate the condition. For this case, cross legged sitting or spinal twists are likely to cause an increase in symptoms. If the face of light pose (gomukhasana) can be done with a resulting stretch in the iliotibial band or the lateral gluteus medius, this can be of great relief.

In the third scenario, stretches of the hamstrings are contraindicated as they will compress the path of the sciatic in its mid thigh region. For preventing this situation bending of the knees is often helpful to provide a safe stretch for those students who are not currently having symptoms but have in the past quarter year." From Mukunda Stiles

## **c) related challenges**—lifestyle, diet, limitations on activity

Severe cases of sciatica can be quite debilitating since sitting, forward bending, running and even walking can be painful. Thus, activities such as sitting at work, traveling, playing tennis, cycling and even yoga may be difficult. In extreme cases walking may even be effected. Sufferers are nearly always dehydrated and the consumption of hot, spicy food often intensifies the sciatica.

## **3 Ayurvedic assessment** and Ayurvedic based yoga recommendations

Where pain is present there is excess vata. Sciatica is associated with inflammation, thus excess heat, therefore, and excess pitta. So, treatment needs to address both the excess vata and pitta. Sciatica sufferers should therefore establish a calming environment with stable routines. Plenty of rest, relaxation and sleep. Encourage the person to set aside a weekend to do nothing other than sleep and rest. A couple of days of good rest may greatly reduce the sciatica symptoms

Spicy foods, alcohol and caffeine should be avoided, cooling foods encouraged. Sciatica sufferers should increase their intake of water and foods with a high water content.

#### **4 Common body reading**

“A straight leg raising test is revealing of sciatica. If the pain extends the length of the leg upon full flexion sciatica is involved. To confirm, dorsiflex the ankle and that will produce sciatic pain. Without this reaction, tight hamstrings are more likely as the sensation will be only in the posterior thigh.” From Mukunda Stiles

The lumbar spine will often be rotated away from the side where pain is present. Turn out of the feet will often be different between the two legs. This may be observed either standing or supine. The turn out is sometimes less on the symptomatic side due to the direction of the twist in the pelvis. The twist resulting from hip adductors contracting to actively rotate the pelvis forward.

Additionally, one will frequently observe a slight lateral lumbar flexion.

Frequently, the hamstrings, gluteus maximus and the external hip rotators will be weak on the symptomatic side.

#### **5 Contraindicated yoga practices** and general activities to modify or eliminate

All forward bends (hamstring stretches) especially seated with legs straight. Yoga poses that should be avoided are many and include asanas such as Warrior 3, Happy Baby Pose, Down Dog and Boat Pose. Reduce seated, crossed leg poses. Any activities that involves prolonged sitting such as driving long distances, sitting at work, going to the movies. Depending on the severity of the sciatica almost all activities may prove to be a problem even walking, sneezing or coughing. Sitting on the toilet seat for extended periods, if they read whilst sitting on the toilet tell them not to! The weight of the body and the shape of the toilet seat can put considerable pressure on the sciatic nerve. Men who place a thick wallet on their back pocket may find great relief from their sciatica by simply removing the wallet.

#### **6 General recommendations**-- progressive through 3 phases –

##### **a -therapeutic/free of pain**

Find out what they are sitting on! Make sure it is not a wallet or toilet seat!

Check the SI joint is stable and moving correctly, if not give the SI joint freeing exercise.

Give exercise to strengthen the lower back and buttocks, such as rolling bridge and tilting the pelvis while in bridge pose, sunbird (JFS #7), locust and camel.

Give groin stretches, for example child's pose with knees and feet apart, lunge with the symptomatic leg back and groin stretch from SYT page 164.

Give exercise to release the external hip rotators such as Gomukhasana, and pigeon variations.

Advise them to avoid forward bends especially seated, reduce time spent sitting, and increase the amount of water they drink.

### **b-stabilize situation**

Check in with them frequently and remind them that there is often a long time lag with sciatica between starting the exercise/lifestyle changes and noticing results.

Sciatica sufferers tend to be somewhat hyper, encourage them to develop a routine with the exercise, to be calm and patient and stick with it. With time the repetitions or duration of holding poses can increase and variations can be given to deepen the effect of the pose.

Lifestyle changes may include reducing caffeine and spicy food intake and increasing water intake. Encourage calming practices such as meditation, short periods of Savasana, bath with relaxing salts but not too hot! Try to get more sleep. Reduce time sitting and use a wedge when sitting to raise hip and so reduce the stretch to the sciatic nerve. Stop wearing high heels.

### **c-maintenance**

Have piriformis and surrounding muscles massaged from time to time or roll on a small firm ball such as a tennis ball.

Make the individual aware that sciatica is often related to some emotional problem, current or past. They should be aware that working to improve the sciatica might well bring up some emotions. They should have the support they need for this in place. This support may come from family, friends or therapists.

## **7. Questions and answers** from [www.yogaforums.com](http://www.yogaforums.com)

Q #1- I have two **sciatica** clients, in Denver, who I have been helping with Yoga Therapy for 2 months. I am writing to ask for your advice. They both have gained benefit from the Joint Freeing Series, hydrotherapy and Ayurvedic advice. However they both have had painful relapses recently and I thought you would know what to tell them as to what to expect for recovery time. Neither of them has patience and this of course is part of the syndrome. The man is Pitta with vata provocations (type A pushing). The woman is Vata with Pitta provocations. She always gets emotional when she is touched by any healer and is confused about why. I feel like her psychotherapist and know she is on a brink. Suggestions?

Find someone who approaches her more slowly, someone she trusts

Question #2- I wonder if you know any great literature that you recommend for **sciatica** clients, or literature that I can find on the net on successful treatments and strategies?

Not that I know, other than Richard Miller's article on sciatica. [www.nondual.com](http://www.nondual.com)

Answer

This condition often takes long term management. In about half the cases there is a cure and no more symptoms but then there does the other half need to be changing their protocols roughly seasonal. As a vata displaced condition, it is quite common for there to be a need for profound relaxation and change in life direction to relieve the deeper pushing of vata. When vata is displaced it is a force that is trying to change your thoughts, emotions, prana (all the koshas) into a life nurturing direction. Until that is clear there is pain and discomfort. Psychotherapy is often needed to get behind the emotional and mental fog that arises from the imbalance of vata and Pitta which will manifest as vata's memory loss and/or loss of pitta's discernment quality. Spiritual

counseling and searching for the inner teacher is the deeper need however. Thus a psychotherapist doing sadhana can bring wonderful relief and support for the need of regular sadhana for these suffering clients.

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My question is: can **sciatica** be caused from a severe tilt of the pelvis, forward or backward? Or caused by anything other than a disc problem?

Also: I have pain located deep in the buttocks around the sit bones every time I do a standing forward bend, and most times in Triangle pose. I have had this pain for two years, so I bend my knees in a forward bend. The pain is in both the left and right buttock. Please help.

Answer

There are several causes of **sciatica** -- compression of the nerve roots in the sacral region (this can come from sacroiliac dysfunction in which the s/i does not symmetrically move upward upon hip flexion) or from chronic dehydration quite common for over 35 year olds; or from pinching of the nerve pathway anywhere from the gluteal region (especially the pathway through piriformis and gemellus superior), or between the hamstrings. The major recommendations I have given include not to stretch the nerve (hence no forward bends with knees straight); but rather tone of the hip extensors (hamstrings and gluteus maximus with locust); and stretches of the adductors at their upper range where they also function as hip flexors (such as groin stretch in my book or modified pigeon). For sure be certain you are consistently hydrated, minimum of 8 glasses of 8 ounces per day for 3 months to relieve dehydration then keep it up for life.

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Q - Have you helped anyone with **sciatica** during pregnancy? I have a friend who is in terrible pain. I'm a little familiar with therapy for **sciatica** in general, but in this case I'm confused. thank you! BP

A - This condition is nasty at any time but is especially so during last trimester of pregnancy. The general recommendations were covered in previous sends so i will not give but some summary here -- avoid prolonged sitting, move a lot: if you must drive distances then get out and walk frequently; avoid stretching the hamstrings instead stretch the front groin hip flexors and adductors; and strengthen the hamstrings with back bending such as locust, sunbird, dancer; and drink plenty (copious amounts) of water (not beverages), water. If these do not relieve it then bodywork, soft tissue manipulation, is helpful. There is a manipulation of the hip deep external rotators located in the lateral gluteals that works wonders. I have described it previously, can show if you catch me on my travels. namaste Mukunda

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Q - I need your advice. My right hip (**sciatica** pain) has really been hurting. My whole right side is not as flexible as my left, and now my right side lower back is starting to burn. It hurts most when I lay flat on back, no bent knees, like Savasana. Is that a disk problem? Which exercise would you recommend from your book? Thanks so very much. Look forward to hearing from you. Sincerely, TC

A - With **sciatica** that is irritated vata (stress). Major need is to relax, eat and sleep consistently. Most common need is to strengthen the external hip rotators you can look in my book for examples of what does that I find doing sunbird with leg turning outward is often best way to do this. Gentle backbends like cobra and locust, which focus on strength and not stretch, can help. Also avoid contraindicated motions, which are all forward bends. Especially do not stretch

hamstrings. For more chronic issues a colonic or enema may be helpful too. The seat of the problem is often colon issue -- diet irregularity, too much travel, or suppressed fear.

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Q - I have a student who has **sciatica** in her left hip. From closer observation, I notice that her left hip is considerably higher than her right hip and her right hip is twisted forward. Her spine is curved to compensate for hip height difference, and perhaps one disk is starting to think about bulging. (she does feel comfortable in child's pose). What do you recommend I do with her and is there anything/adjustments that I should do while teaching her in a general yoga class to help her condition? Many Thanks C

A - In general you want to do postures that improve her alignment in asana as this may help her **sciatica**. Also of course avoid contraindicated poses for **sciatica** – hamstring stretches and emphasize strength of the gluteal region (hip extensors more specifically) in poses such as locust and stretch of its antagonists, the hip flexors in poses such as the runner stretch or lunge. Giving extra relaxation exercises (such as child's pose) is also helpful as **sciatica** as a vata imbalance inhibits the ability to relax and sleep. Calming pranayama like the wave breath and concentrating on progressive relaxation is a must.

I will now address the answer to this more explicitly as you are in my Structural Yoga Therapy (SYT) certification course. At this point you have had only 2 of the 12 weekends required for certification, I think others will also benefit from hearing the full scope of this work. I want you to help you utilize my book and my skills more beneficially. Use me by all means, but overtime learn to use me to point to what you cannot get to from referring to my writings. I want you to utilize my response to see how you can utilize your powers of observation and discernment more acutely (being a Sherlock Holmes of body reading assessment) in making future assessments.

There are six levels of assessment information that can be utilized in making a thorough SYT set of recommendations for any given situation.

1 -You began this question well enough showing a closer observation thus utilizing bodyreading skills from chapter 12 of my book. By using this step alone you can create a helpful program of SYT. One solution to your question about what to do can be found in by using my book. It tell you what muscles are contracted making postural changes (see table 3 page 103), another chart shows therapeutic asanas for postural change (table 6, page 266). However this first level of SYT is not very precise.

2 - The second step in the progression to more accurate SYT recommendations is to take and evaluate this body reading in a kinesiological manner. So that is what I will do next I will say the postural imbalances you identified in kinesiological language. For new readers kinesiology is a second level of anatomy studies applied to understanding what muscles are contracting to create movements. Left hip is elevated (thus a contraction of left quadratus lumborum & possibly psoas), right hip is internally rotated (contracting gluteus medius anterior fibers and tensor fascia lata also some of the adductors which are internal rotators too); this implies that the left hip is externally rotated (contracting the gluteus maximus and deep 6 rotators anterior to it - among them is the piriformis infamous for causing **sciatica**). By considering the antagonists (opposing movers) of these contracted muscles you can discover what muscles are over stretched. A sample list of muscle antagonist pairs is located in table 4 page 122; and another chart shows what asanas strengthen and stretch what muscles (table 5 page 254-255). From this knowledge you can create a more precise set of recommendations that direct the student's awareness to feeling the stretch and strength where it is needed.

3 – The last three steps go beyond the scope of my book covering information only given in my certification training. A step you left out, because you are new to this training, is to do a range of motion (ROM) assessment of the client either following the joint freeing series (JFS) as it is given in chapter 16 – Anatomy and Mobility Assessment or through a detailed assessment by learning to use the goniometer (sold via my website bookstore) based on our SYT Examination Manual. This manual is available only to students in the training. This provides exact angles of ROM to be more precise than JFS assessment based on guessing the angles of motion. Either manner will tell you what muscles are tight. Then referring to the previously mentioned table 5 you can give yet more helpful recommendations.

4 - Later on you will learn to do a physical therapy based form of muscle testing (MT), also detailed in your SYT Examination Manual, to determine how much a muscle is weakened. With these four assessments - bodyreading, kinesiology understanding, ROM, and MT - then you can utilize your thinking more clearly in giving accurate Structural Yoga Therapy recommendations.

5 – You can also give recommendations based on an understanding of the condition; in this case **sciatica** or you could look up that topic ([www.yogaforums.com](http://www.yogaforums.com) for the archives of such questions). **Sciatica** can be a mixture of three factors that compress the sciatic nerve – from its roots at L4-S3 as a result of herniated or degenerated disc; a contraction of the nerve in the gluteals between the piriformis above and the obturator internus below; or tight hamstrings affecting the area where the nerve divides into its two components – peroneal and tibial nerves. For this precision, the student will need to comprehend the scope of the full 2-year program. A more informed set of recommendations would take into consideration all five factors. In this way by understanding the specific muscles that are imbalanced with her unique **sciatica** condition can create a more personally tailored program, more pertinent to this woman.

6 – An Ayurvedic assessment of the condition will also point out what of three approaches is best utilized in giving the above recommendations. This material is given out sparingly in this course until my book Ayurvedic Yoga Therapy is published (hopefully by the end of this year). A training in this method will be given May 16-21 in Zurich, Switzerland.

One also needs to keep in mind the guidelines from my first book, Yoga Sutras of Patanjali, as these guidelines help us to become clear on what is harmful and avoid all such movements that cause himsa (see YS II, 33-35), such as straight leg forward bends. These writings also reveal how we can guide ourselves and students through the progression of Classical Yoga training leading to freedom from all forms of pain and suffering.

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## **8 References**

### **Texts**

Anatomy of Hatha Yoga	Coulter
Gray's Anatomy	
Lower Back Pain Syndrome	Rene Cailliet, M.D.
Structural Yoga Therapy	Mukunda Stiles
Structural Yoga Therapy Manual	Mukunda Stiles
The Path to Holistic health	B.K.S. Iyengar
Stretch and Strengthen	Judy Alter
A Matter of Health	Dr. Krishna Raman.
Structural Kinesiology	Clem W. Thompson

## Web sites

Yogaforums.com	Question and answer forum, great amount of information on many topics. See section 7, pg 14
Mayoclinic.com	Good general education on Sciatica including symptoms, causes, risk factors, prevention, etc.
Postgradmed.com	Two articles called “patients notes” on sciatica. Go over symptoms, causes, who is likely to be effected, how to minimize symptoms, how it differs from back pain, how to avoid it.
Yogajournal.com	“coping with sciatica” gives advise on what poses to avoid and what poses to focus on
Spineonline.com Spine-health.com	Straight forward definition Has lots of information. Breaks down sciatica by it's causes and gives exercise specific for each cause. Each exercise diagram can be cut and pasted (if you are not concerned about copyright!) to put together a program for your client. ( <a href="http://www.spine-health.com/topics/conserv/sciaex/sciaex01.html">http://www.spine-health.com/topics/conserv/sciaex/sciaex01.html</a> )
Spineuniverse.com	Diagram of sciatic nerve

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## 9 Appendix

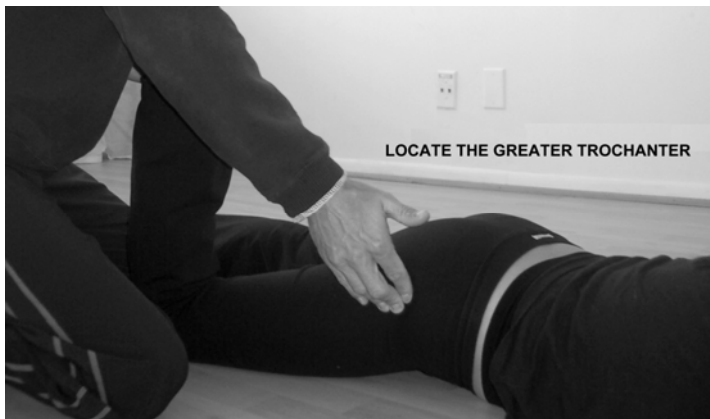
Since I started to work with the two Jen's I have learnt much about sciatica and I have become aware of many additional exercises. Many of the following I would have considered recommending to my two clients only I was unaware of them at the time. Having said that, I would like to point out that any of the exercises outlined here that were not given to either of my clients I have no direct personal experience of them. Therefore, I cannot personally recommend them, however, much of this information has come from Mukunda

Prone SI / hip movement / groin stretch. Client is lying in a prone position; chin/ head can be resting on the hands. One knee is brought out to the side, the knee rests on the floor and the foot lies against the medial side of the opposite leg in the vicinity of the knee. This position is very similar to that used for muscle testing the gluteus maximus. The client then tilts and thrusts the pelvis. The client should feel the movement in the hip socket, the gluteus maximus engaging during the thrust, the hip adductors lengthening and a feeling of trying to open the hip crease and lower it towards the floor. During the tilt the lower erector spinae will engage and the tail bone will lift away from the floor bringing more space between the floor and the inner thigh on the bent knee side. Repeat 12 times and change sides

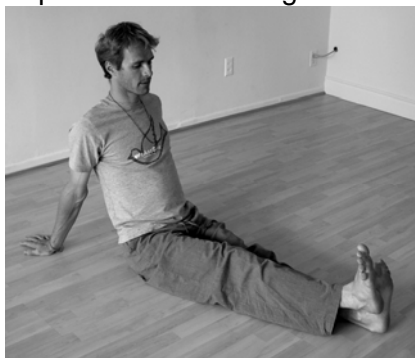




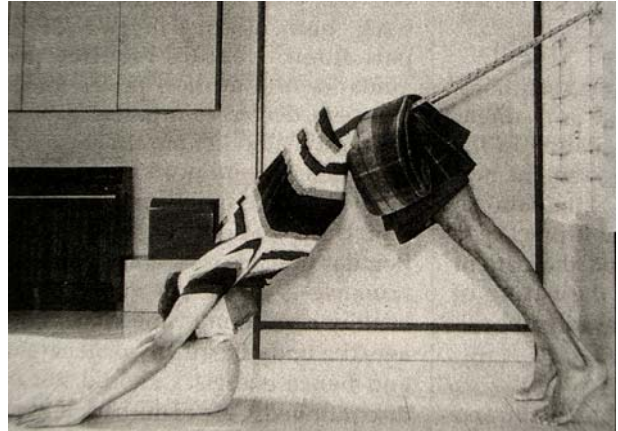
**Piriformis release.** Client is lying in a prone position with legs apart to 30 degrees of abduction. Bring the affected side knee into 90 degrees of flexion, while supporting their ankle to give you leverage to manipulate hip rotation. With your other hand find the head of the greater trochanter. Place the heel of your hand medially to the trochanter so the heel of your hand pushes into the hip external rotators. The hand can be repositioned with feed back from the client to help you locate the piriformis, while avoiding direct pressure on the nerve. Apply a mild pressure with the heel of your hand bring the foot out to the side laterally to move the hip into internal rotation as shown in the right photo. Then reverse the leg direction keeping the hip abducted as you gradually increase the pressure moving slowly to put the hip into a passive external hip rotation to release the nerve. Repeat into both internal and external rotation 6-12 times or until a release is experienced.



**Psoas strengthening exercise.** Sitting in stick pose (Dandasana) lean back supporting yourself with your shoulders in extension and maintain lumbar flexion. Lift one leg up approximately 18 inches at the same time turning it out approximately 18 inches; in flexion & external hip rotation). This movement should be a smooth 45 degree motion rather than one movement up and a second movement out. Exhale as the leg is lifted and inhale as it is lowered. The number of repetitions depends on the strength of the client; ideal is a range from at least 12 (vatas) or up to 20 (kaphas).



**Dog with ropes.** If the client is suffering from sciatica due to pressure on the nerve as it exits the spine, indicating disk compression then traction of the lower back should bring about relief. This can be achieved in Dog pose with use of a rope. The rope forms a loop which passes across the hip creases and is attached to the wall higher than the hips. Ideally, once the client is leaning into the loop of the rope, away from the wall, the rope will form a continuation of the straight line of the arms and spine. The pose is not trying to achieve a stretch in the legs but to lengthen the spine. The client may have the heels up the wall and a bend in the knees, the focus is on achieving the feeling of hanging from the rope, or that the rope is lifting the hips up and back. The head can be supported on a block, blanket etc. This will be especially useful if the client is stiff. It will improve the forward bend and prevent strain. The use of the rope should enable the client to maintain the pose for a prolonged length of time, one minute or more. If you do not have access to a rope wall then place a yoga strap across the clients hip creases, hold the strap in your hands, leaning back use your body weight to bring about the effect. Another alternative is to use a strap around a door handle. The client's legs are either side of the door



### **CAUTION**

Ensure the client remains active during the pose, engaging the hip flexors, the quadriceps and the gluts. If the client relaxes too much the head of the femur may get pulled back out of the socket.

Ensure there is no stretch of the hamstrings.  
A client may relax too much during the pose.  
In the case of sciatica, the client should feel strong during poses to increase kapha.

**Locust with hip abduction/adduction.** The client comes into a low locust pose and then brings the feet wide apart on the inhale, exhale as the legs are brought back together. Repeat 5 times and then lower the legs. If this proves to be too challenging the client can slide the along the floor as well as work on normal locust. Then, in time, they should find they have the strength to move the legs in and out while lifted. This exercise will strengthen the hamstrings and gluteus maximus and the other external hip rotators at the same time as bringing circulation to these muscles and the hips.

### **Joint Freeing Series for sciatica sufferers**

If person is in acute sciatic pain they should not be doing yoga

Do not stretch but focus on strengthening, especially the muscles below the pain, and release.

A release will increase ROM, stretch does not and pain reduces ROM.

Client should take plenty of time to do the series, slow down, breathe. When sciatica is present there is inflammation so pitta is elevated.

Do not sit in stick pose, lean back to reduce forward bend. Be cautious of plantar and dorsi flexion, eversion and inversion of the ankles.

Exercise #4: lean back and drag foot in and out, do not lift leg or extend though heel.

Exercise #5: lean back and have legs together in front of you. Inhale as the leg swings out to the side externally rotating, inhale as the leg is internally rotated and brought back in front.

Exercise #6: Move the hands and body forward in cat pose so that the pelvis is no longer above the knees but is in front of them to reduce the forward bend effect of the pose. Focus is spinal extension and not flexion.

Exercise #7: Move the hands and body forward in cat pose. Only perform the hip extension part of the exercise. Do not move into hip flexion.

Exercise #8: Move the hands and body forward in cat pose. As hips move to the side ensure they are not also moving back.

The remainder of the JFS can be completed kneeling or standing.

Exercise #16: this exercise may be removed, focus on the scapula and shoulder movement during exercise# 13. Bringing right hand to hold left posterior deltoid and left hand to hold right posterior deltoid, elbows stack in front of you, will abduct the scapula.

Exercise# 17: Lateral flexion can be done by bringing right hand to hold left posterior deltoid and left hand to hold right posterior deltoid, elbows stack in front of you whilst gently leaning to the side.

Exercise# 18: Spinal twist can be done by bringing right hand to hold left posterior deltoid and left hand to hold right posterior deltoid, elbows stack in front of you whilst gently turning upper thoracic to the side.