Structural Yoga Therapy

Healing for Sacrum/Hip/Knee Pain

With complications from asthma

Structural Yoga Therapy Course

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RG <u>case study</u>

1 a – <u>Initial intake</u> – Background, symptoms, subjective pain level, self assessment and goals

RG is 55 and a half years old, and at the start of our program in March 2008, he weighed 250 pounds. He is 5 foot 8 inches tall. He is a full time yoga teacher, working in gym and health club settings.

RG worked for almost 30 years for a Wall Street firm tracking trades. He was laid off after his position was eliminated in 2001. RG became a yoga teacher in the spring of 2002 after doing a 500-hour training. He currently teaches 15 Yoga classes a week.

RG has high blood pressure and high cholesterol but is taking medication and both conditions are under control. He takes over-the-counter medications, Aleve or Excedrin, when he has knee pain. He has asthma but only takes medication when he has difficulty breathing.

Since early 2002, RG has felt hip pain, appearing and then disappearing irregularly but consistently, in a pattern than radiates outward from his sacrum to both outer hips. He says he sometimes feels extremely weak in his outer hips, to the point where if he is out and walking about, he has to sit down.

RG also had knee pain from a tear in his left meniscus as well as sacroiliac pain and tenderness in the hips

In his self assessment, RG describes himself as frequently feeling tired and weak, lacking in stamina. His will power is strong if he is dealing with a task that interests him, he says and I can see this is so. But his mind wanders easily if he is not motivated or mentally engaged. For example, he dozes or drifts off as we begin a meditation or Savasana; and, if he is spacing out, you sometimes have to ask him a question several times before he either seems to notice or he finds the energy to respond.

In early June, mid way through our program, he had minor knee surgery to repair a meniscus tear in his left knee. He recovered quickly.

RG's eating habits at the start of our program were not optimal. Breakfast, at the start of our program, was usually two sausage, egg, & cheese sandwiches with skim milk or tea, usually eaten around 10 am after teaching morning yoga classes.

RG habitually skipped lunch, often because he ate a late breakfast.

Dinner was usually sandwiches, ham, turkey, cheese on one of two half loaves of French bread.

Snacks were frequent, typically Hershey bars and/or cold cereal with milk.

RG has never consumed coffee or alcohol, even the occasional beer.

Until he began experiencing chronic outbursts of pain in his knees, sacrum and sometimes, hips, going back to about 2002 for his sacrum and hips, he would exercise every day. At the start of our program, however, he was not exercising, primarily because of knee and sacrum pain. He wasn't doing Yoga either, even though he teaches yoga. He would, when necessary, demonstrate a pose or, if in pain, recruit one of his more adept students to act as demonstrator.

At the start of our program, he was not doing any pranayama except alternate nostril breathing, usually in class.

He has never meditated because he "was never able to get the hang of it."

RG reads quite a bit, all or his reading choices are non-fictional, mostly political books. He also likes and spends much free time watching movies on television or on video tapes/DVD and he listens religiously to conservative radio talk shows. When he is with friends, he talks mostly politics and sports.

RG is not married and is not dating. He chats with women but shows no interest in pursuing a romantic relationship. He seems to like the orderliness of his life and the freedom from potential domestic squabbles which most of his men friends, all married or with a significant other, occasionally have to endure.

RG often reports feeling tired, lethargic, without energy or the desire to do anything in particular. He also reports often feeling tense, frustrated and depressed. He once said that he was "tired of having injuries and being sick." RG has a history of bronchitis and tries not to do anything that might cause it to reoccur.

He says he has lost interest in things he formerly enjoyed like aerobics, stretching and even Yoga.

He says he "misses being able to do the physical things that used to give me pleasure" like all of the above.

RG enjoys teaching yoga when students like his class and when they tell him that something he suggested was helpful.

But he says he also often feels frustrated because he worries that if his class sizes drop, he will lose the class and the income. Sometimes teaching makes him extremely tense when he feels tired or sick but still has to teach.

Pain Levels

RG characterized the pain in his sacral area as chronic and moderately severe, about a 6 or 7 on a scale of 1 to 10 with 10 being the highest; the pain in his hip as more fleeting and a bit less severe, about a 4 or 5 and his knee pain as acute at about an 8.

Goals

Following the assessments, we prioritized and addressed the following symptoms:

- Relieve sacrum pain and sacroiliac instability
- Relieve pain in left knee
- Relieve pain in both outer hips, which RG was able to localize as radiating from his sacrum out to the gluteus medius in both legs, outer hip pain.
- RG also has difficulty in breathing, attributable to his asthma and exasperated by tightness in his chest and rib areas where the movement of breath was virtually imperceptible. So we prioritized working with his inhales and exhales to extend them and make the breath flow in a more relaxed, less constricted way.

1 b – <u>Physical assessment</u> and posture body reading

- RG's left leg is longer than his right, slightly.
- He has a forward head.
- His low back over-arches.
- His left shoulder is higher than his right.
- His ankles turn out, especially the right leg.
- He has limited shoulder flexion and very little tone in his belly.
- Both sides of his pelvis dipped during the initial Sacroiliac Joint exam in March, indicating instability in the sacrum.
- His breath is shallow.
- His thighs are thick, making it difficult to estimate hamstring flexibility.

Common body reading

RG has a body pattern, fairly common in people with asthma. His head and shoulders round forward and his upper back posture tends toward the kyphotic while his low back seems hyper lordodic.

RG's chest is broad and barrel like but also somewhat lifeless. At the beginning of our practice, there was almost no visible mobility in his chest and ribs. He could flex his thoracic spine fairly well, but most likely because of his weight workouts, his pectoral muscles were tight and there was limited movement in his scapula.

As of late July, because of his consistency in doing pranayama, his ribs were becoming more mobile and there was more movement in his chest as well, especially during inhales.

Lower Body Range of Motion Assessments:
March 23, May 26 and July 14 2008

Joint Action	ROM	3/23/08	3/23/08	5/26/08	5/26/08	7/14/08	7/14/08
KNEE	Norm°	Left	Right	Left	Right	Left	Right
Extension	0°/180°	Hyperextension	hyperextension	Hyper	Hyper	Hyper	Hyper
Flexion (Supine)	150°	86	74	92	94	85	80
HIP	Norm°	Left	Right	Left	Right	Left	Right
Hip Flexion (Bent Knee)	135°	108	108	105	103	95	97
Hip Flexion (Straight-Leg Raise)	90°	76	73	80	78	76	73
Checking length of hip flexors:	NSS	Sartorius Ext rotation in opposite leg	Sartorius Ext rotation in opposite leg	hip lifted, psoas	Hip lifted, psoas	Sartorius Ext rotation	Sartorius Ext rotation
Hip External Rotation (Supine)	45°-60°	42	35	45	40	52	40
Hip Internal Rotation (Supine)	35°	28	35	19	27	25	22
Hip flexion (Prone)	135-150	94	117	95	115	95	95
External Rotation (Prone)	45°-60°	55	52	56	57	45	50
Internal Rotation (Prone)	35°	28	30	25	27	25	30

Muscle Testing Assessments

Scale:

0 indicates muscle is paralyzed, no palpable sign of contraction;
1 indicates muscle contracts but cannot move through ROM without pain;
2 means muscle moves through full ROM but trembles and lacks stability with resistance;
3 means muscle gives out moderate resistance or secondary movers take over and pull the motion into a new direction;
4 means a slight motion is created with full resistance, primary movers are not recruiting secondary movers;
5 means the joint is solid, immovable at any point along the full ROM with full resistance.

	3/23/08 Left, 1-5	3/23/08 Right 1-5	5/26/08 Left, 1-5	5/26/08 Right, 1-5	L7/14/08 Left, 1-5	7/14/08 Right, 1-5
Knee Extension (prone)	1.5	1.5	1.5	1.5	3	3
Knee Flexion (prone)	3	3	3	3	3.5	3.5
Hip Flexors - Bent Knee (Supine) single leg.	Can't do		1.25	1.25	3	3
Iliopsoas Isolation (Supine)	2.5 to 3	2.75 to 3.5	2	2	3	3
Sartorius Isolation (Supine)	2.5	Can't do Painful	Couldn't do	Could not do	4	4
Hip External rotators (side lying)	2	2	3.5	3.5	2.5	3
Hip Internal rotators (side lying)	2.5	2.5	2.5	2.5	2	2
External Hip Rotation (Prone)	2.5	2.5	3	3	2.5	2.5
Internal Hip Rotation (Prone)	0.5	0.5	0.5	0.5	1	1
Hip extensors (Prone)	2	2	2	2	1.5	1.5
Gluteus Maximus Isolation (Prone)	1	1	0.5	0.5	0.5	0.5

1 C Summary of findings

Ankles		
Weak	**Tight**	**Needing Release**
Quads	Hamstrings	Hamstrings
Sartorius	IT band	IT band
Psoas	Undetermined	Undetermined
Gluteus Maximus	Hip flexors	Hip flexors
Internal hip rotators	External hip rotators	External hip rotators

1D Recommendations

During the evaluation of RG's sacroiliac joint, there was a definite instability as we started the program. Both joints dropped as RG lifted his knees, one at a time, during the exam.

At the start of our sessions, in addition to recommending that RG practice the Sacroiliac Stabilizing Series daily which he has done regularly and consistently, I also recommended that RG do the first half of the Joint Freeing Series daily to increase range of motion for his ankle, knee and hip muscles.

The Joint Freeing Series (JFS) is a sequence of 21 poses that move all the muscles around each joint in the body gently and systematically through their full range of motion. In addition to helping diagnose joint suppleness and helping to identify weak and tight muscles, when a person does the series regularly, they can increase both muscle strength and muscle regularity. They can also heighten their bodily awareness, enhance joint mobility, and relieve joint pain and stiffness. Done in junction with coordinated breathing, the JFS frees the subtle energies hidden within the breath, often culminating in flashes of intuition and spiritual insights.

While a JFS evaluation, together with Goniometer measurements, will indicate whether a muscle has diminished mobility or is hyper mobile, muscle tests, done in a structured way, will help identify which muscles are weak and need strengthening and which are tight and need stretching or release.

The first and second muscle tests, done two months apart, revealed that RG's knee flexors, the hamstrings, were stronger than his knee extenders, the quads, averaging about 3 on a scale ranging from 0 to 5 with 5 being the strongest. His quads, the knee extensors, were weak, averaging 1.5 in muscle testing.

In our program, I followed the logic that strengthening and stretching the muscles right above and below the knees, at the hips and ankles, would ultimately also strengthen and make more mobile the muscles around RG's knee joints.

RG has particularly thick and heavy thighs which appear to limit his knee flexion range of motion. That did not change over the 4 months we worked together. Neither did his tendency to hyperextend his knees.

However RG, who, over the four months of the program, did the Sunbird Hip flexion/extension exercise regularly from a standing position, bent over a table or chair, did increase the strength of both his quads and his hamstrings.

To strengthen his hamstrings, gluteus maximus, psoas and sartorious, RG since April has been doing a sunbird modification with the extended leg abducted to the side and externally rotated.

In his article focused on asana therapy for knee conditions, "Know Your Knees, Mukunda Stiles notes that a total of "eleven muscles cross the knee joint; of these, seven originate above the hip joint—which is why a limitation to the hip will affect the knees. A lack of flexibility in the hip creates an increased demand for knee flexibility, often resulting in a strain to delicate connective tissues."

In the article, Mukunda notes that he "commonly sees clients with knee injuries who also have limited hip mobility."

As part of a Yoga-based therapeutic program, Mukunda recommends that people with knee injuries "systematically practice single-joint movements that develop the natural full range of motion."

A complete series of joint-freeing movements, he notes in the article, "isolates the movements of each joint, enhancing both stability and elasticity of the joints. Repeating the movements reveals and alleviates potential stress. More complex postures which affect both the hip and knee joints are likely to be stress-free if the joint freeing exercises are done first."

At the start and into the middle of our program, RG couldn't do side lying hip adduction (which would have tested the ROM and strength of his gracilis, adductor magnus and other hip adductors) and he couldn't do side lying hip abduction (which would have been another way to test Sartorius) because of his sacrum pain.

During his ROM measurements, RG demonstrated a higher degree of flexibility in external hip rotators in his left leg, 52 degrees during his most recent reading in the supine position on July 14, 2008 compared to 40 degrees in his right leg at the time of the same reading.

However his internal hip rotator range of motion (ROM) measurement in July showed diminished flexibility, 25 degrees in the left leg and 22 in the right compared to a normal range of 35 degrees compared to 28 degrees in the left leg and 35 in the right in March.

His prone readings for external rotation ROM, however, were closer to the normal range for men in July, 45 degrees in the left leg and 50 in the right compared to 55 and 52 respectively in March. However his prone readings for internal rotation in July remained relatively unchanged from the March measurements and still showed diminished mobility, averaging 25 in the left leg and 30 in the right versus a normal or standard ROM of 35.

Muscle tests in the prone position in March and May revealed that his internal hip rotators were weak averaging 0.5 on the 1 to 5 scale. His external hip rotators in the prone position were stronger then the internal hip rotators, but they were at the mid-range of strength, averaging between 2.5 and 3 on the 1 to 5 strength measurement scale. (O means extremely weak and 5 means very strong.)

The iliopsoas isolation tests in March and May indicated that RG's psoas was weak, averaging between a 2 and a 3, but his hip flexors were tight. I suspected his posas, while weak, still needed to be released. So to incorporate a release for the psoas into RG's program, I asked RG to do the Constructive Rest Position as described in Liz Koch's book, "The Psoas Book." This was simply to lie on his back, knees bent, feet and

knees inner hip distance apart. If it felt comfortable, I asked him to extend one leg slowly, keeping the knee and toes of that leg pointed straight up and slowly, as much as possible and without arching his low back, bringing the back of his thigh but not the back of his knee to the floor as he kept his other leg bent.

The Sartorius another hip flexor, as well as a knee flexor, was also weak, 2.5 in March, measured when the sacrum was stable enough for the sartorius isolation test to be administered.

RG found it very hard to do the gluteus maximus isolation test, indicating it was very weak. I formed the hypothesis, but could not confirm, that restrictions around his ankle joints may be contributing to problems of pain and instability up the length of his legs through knees, sacrum and hips and on into his rib cage, shoulders and neck.

At the beginning of our program, I thought it best to keep RG focused on his lower body first, the area of his original discomfit, and to work up to the upper body as he showed improvements in the lower body.

But, as we progressed through the series, I saw the need for pranayama and added that to address bouts of depression and breathing difficulties, to pacify Vata and replenish Kapha.

Eight weeks into the program, in early June, we added the wave breath to his program, focusing on the intercostal muscles that move his ribs. We used the pranayama to try to spread the inhale and exhale more evenly from his belly into his rib cage and chest.

At Mukunda's suggestion, I also asked RG to focus his inhales and exhales into the muscles that he was moving as he did the lower body movements of the Joint Freeing Series.

I also recommended he change his diet, reducing his intake of processed foods, fatty foods and sugars.

1E Results of your recommendations

RG changed his diet and eliminated sausage, cheese and egg sandwiches from his breakfast meals, replacing them with cereal and skim milk, tea and a banana.

Lunch and or dinner time is now often rotisserie chicken with rice and usually water. Sometimes he has fish or broiled or baked chicken. He still eats processed turkey and cheese sandwiches and Hershey bars. By mid July he has lost 5 pounds and was reporting days when his body felt "light and comfortable,"

However there were still days when he reported feeling sluggish, and/or occasionally dizzy.

RG did the joint movements of the JFS consistently for four months.
His ROM in supine knee flexion varied considerably over the four months, but two of the ROM readings indicated that RG's right leg knee flexion was more diminished than his left. The last reading measured 85 degrees of flexion in his left leg and 80 in his right, still significantly below the normal range of motion which is 150 degrees.

As of our last meeting, July 14, RG still had not strengthened hamstrings and released his quads enough to prevent his knees from hyper-extending.

However, I am confident that as he continues to do the JFS, his ROM and muscle strength will improve. In July, he reported more ease in working with his legs and the week of July 21, he began taking some gentle yoga classes with a teacher he trusts and he says he was "surprised I could do it and I enjoyed doing it."

The strength in his knee extensors, the quads, had increased from a 1.5 in March to 3 in both legs by July.

RG's ROM with bent leg hip flexion declined significantly over the four months, but that probably can be attributed to his knee surgery and to the fact that for a four week period, he stopped doing the JFS knee flexion/knee extension exercises.

His straight leg hip flexion ROM measurements did not change over the four months, and both legs remained in relatively equal balance, but with the left hip showing slightly more flexibility than his right.

In his final muscle test on July 14, RG demonstrated muscle strength in the Sartorius averaging 4, much improved over earlier measurements. In May he couldn't do the Sartorius muscle test with either leg, and in March, he couldn't do it with his right leg. The psoas also showed improvement, testing at a 3 in July versus a 2 during the prior test on May 26.

By the time of his last muscle test, July 14, the internal rotators on both legs, measured in the prone position, had increased in strength from 0.5 at the start and mid points of our sessions to a 1 in each leg.

RG's strength in external hip rotation measured in the prone position, however, while it had improved by the midpoint of our session in late May, increasing to a 3 from a 2.5 in March had dropped back down to a 2.5 in both legs by mid July.

Muscle strength in his gluteus maximus, however, declined from a 1 measurement in March to 0.5 in both legs during both the May and July tests. This correlated with a

similar decline in his ability to extend his hip. The muscle strength of his hip extensors dropped from a 1 in both legs in March to a 0.5 in both legs during both the May and July tests. The gluteus maximus and the hamstrings are the major hip extension muscles.

2 a – Name and description of the condition

Knee Pain/Hip Pain/Sacrum Pain and instability

RG hyperextended his knees and had diminished knee extension, indicating tight hamstrings, (semitendinosus, semimembranosus and the biceps femoris).

RG has had sacrum instability since Dec 2001 when he believes he over-stretched his sacrum in a Yoga class.

The pain shifts, starting first on the left side, moves to the middle and then to the right side. The right side pain is the worst.

RG went to rehab two years ago, but it didn't help.

RG also had a tear in his left meniscus.

2b – Gross and subtle body common symptoms

According to Medicinenet.com, a meniscal tear is frequently associated with "locking or an unstable sensation in the knee joint." RG thinks it's possible he suffered or exacerbated a tear early this year as he bent down to do something to a friend's car and felt a sharp pain in his knee as he twisted his body.

That would correlate with a description of the possible causes of menisus tears published on the Medicinenet.com web site. In an article about knee pain, "Know Your Knees," Mukunda Stiles, founder of Structural Yoga Therapy and author of, among other books "Structural Yoga Therapy: Adopting to the Individual" observes that in students with hyperextended knees, "the hamstring tendons may move around the joint and avoid being stretched. So, while hyperextended knees appear to be the result of elongated hamstrings, they are in reality tight."

To correct for this problem, Mukunda recommends that yoga teachers working, either in class or working therapeutically one-on-one, to strengthen the knees give the instruction to "pull the kneecap upward" or "firm the muscles above the kneecap."

From the beginning, during our Sunday sessions, I worked therapeutically with RG, using my hands to lift his quads upwards toward his pelvis, to show him kinetically what he needs to do as he moves into an asana or as he finds himself simply standing around.

In another Article about the knees, "Giving Your Knees Support," Mukunda notes that "limited knee flexion is due to shortened, tight quadriceps muscles (on the front of the thighs.) "Since the quadriceps lack mobility and are creating discomfort, the opposite muscles, the hamstrings, are probably weak and lack the strength to fully stretch the quadriceps in normal knee mobility."

In our SYT training and in his articles and book, "Structural Yoga Therapy," Mukunda recommends the therapeutic approach of "strengthening the opposite muscles, the hamstrings, in this case, before stretching the tight muscles, in this case, the quads.

For diminished knee flexibility, therefore, he recommends that clients regularly do locust pose (Salabhasana) and bow (Dhanurasana). He recommends that the arms remain relatively passive so the attention can be on the legs.

2 c – <u>Related challenges</u> – lifestyle, diet, limitations on activities

RG had to adjust his lifestyle to eliminate heavy meals after 10 PM and his habit of only inconsistency taking meals earlier in the day, which he did.

He also changed his diet, cutting back on processed foods particularly packaged meats and breakfast sausages, and increased his intake of fruits, vegetables, chicken and fish. He also drank water more frequently and cut back somewhat on milk

Before his knee operation, he could not extend or flex his knee without discomfit and the instability surrounding his sacrum, forced him to do the sacrum stability exercises sitting in a chair as well as some of the JFS movements standing up, bending over a chair.

<u>Ayurvedic assessment</u>

Based on his body type and behavioral characteristics, RG seems to fall into the Ayurvedic Kapha/Pitta dosha classification as defined by Mukunda Stiles during our 2008 New York SYT training.

In his book, "Ayurvedic Yoga Therapy", Mukunda describes Yoga and Ayurveda as "sister sciences of the Indian Vedic tradition known as the Sanatana Dharma, paths to the Eternal Truth." (Page 2, "Ayurvedic Yoga Therapy")

In Ayurveda, Mukunda teaches, there are three subtle elements called doshas, which are fundamental elemental combinations of ether/air (Vata dosha); fire/water (Pitta dosha) and water/earth (Kapha dosha). The doshas correspond to similar qualities classified in Yoga as gunas (rajas (activity, assertiveness), tamas (inertia, passivity) and sattva (balanced, serene)) and described as "primal qualities that regulate subtler realms to control the direction of all life activities." (Page 3 "Ayurvedic Yoga Therapy") The goal is to balance these qualities to create a sattvic state manifesting into a well functioning body and mind.

Based on some of RG's personality traits and habits, I believe he has imbalances in all three doshas. When unbalanced the Vata dosha leads people to behave in erratic, anxious or flighty ways and while RG is not scattered or spacey in day-to-day things, he is very spacey when asked to meditate or to focus on anything that does not interest him greatly. There are also many fearful aspects to his personality.

RG is able to devise and adhere to a regular routine. But he does have strong anxieties about money and about personal possessions. For example, he drives a very old car, about early 1990, but he uses at least three locks when he parks it during the day as well as overnight.

People with a kapha imbalance often tend to be overly attached to things and to cling and fear loss of all kinds. There is a strong fear in RG that he will lose things (people and pets as well) that he is attached to. And he suffers greatly when faced with the loss of a beloved pet.

He is strongly attached to his possessions, does not like change, makes a loyal and helpful friend, has great compassion for animals, but because of his innate kindness and

sympathy for others, he can easily be taken advantage of. These are qualities that Ayurvedic teaching associate with kapha.

The pitta dosha is associated with fire, and an unbalanced pitta is quick to anger and to criticize. RG displays pitta while driving when he reacts to the inconveniences that other drivers present or that pedestrians present. And while he can get very upset about perceived acts of stupidity or neglect, he is, in essence, a passive personality.

RG has asthma which has played a key role in limiting his quality of life and his ability to relax and breathe easily. According to Ayurveda theory, asthma is caused by toxins created by improperly digested food are carried through channels directly into the chest and lung area. The resulting toxin accumulation imbalances the lung and airway tissues through several mechanisms.

To treat the various types of asthma, Ayurveda literature recommends, among other things, increasing fluid intake, avoid exposure to the cold, massage with sesame oil for increased moisture, avoid eating after 10 PM and avoid meats, nuts and dairy while increasing the intake of vegetables and fruit and to practice meditation breathing exercises.

Ayurvedic based yoga recommendations

Except for massaging with sesame oil and avoiding meats, RG modified his routine to include drinking more fluids, eating more fruits, vegetables, chicken and fish and practicing pranayama at least once a day .

Since asthma can also be worsened by heightened stress, anxiety and mental fatigue, I recommended that RG continue to practice not just pranayama, but also the wave breath and kapalabhati, and gradually see if he can ease himself into meditation. He has been consistent in doing this since June 2008.

One of the most important factors for balancing Vata and keeping the natural cleansing processes strong, Mukunda teaches, is to have a lifestyle that does not disturb natural bodily rhythms. Therefore I recommended that RG go to bed at a regular time each night, between 10 and 11 PM, eat at regular hours, and exercise gently but regularly, continuing to do the joint freeing series with the modifications given to him, continue to do pranayama and continue to build up to a regular yoga practice, doing some of the standing poses and backbends from the pose sequences given in Chapter 20 of "Structural Yoga Therapy."

RG has, for the most part, been able to follow these suggestions.

As mentioned before, the pain in his hips, knees and sacrum have been alleviated he says "substantially" by his regular practice of the Joint Freeing series, and the asana sequences given toward the middle of his sessions.

Contraindicated yoga practices and general activities to modify or eliminate
For Asthma

Deep forward bends that compress the chest, particularly Paschimottanasana, a full seated forward bend) Halasana, a supine deep forward bend, Navasana (boat) with legs extended, Janu sirsasana (seated one leg at a time forward bend, bringing the head to the knee, and marichyasana, a seated twist done with a full forward bend. We did not put many forward bends into RG's routine, just Uttanasana and Down Dog.

Contraindicated yoga practices and general activities to modify or eliminate
For the Hips and Sacrum

Eka Pada Koundiyanasana II and Natarajasana (Lord of the Dance pose) or abduction with external rotation such as Eka Pada Rajakapotasana; forward bends, even Viparita Karani (Legs Up the Wall), as well as Parsvottanasana (Intense Side Stretch), a forward bend with legs abducted; Matsyasana (fish pose) which strongly arches the back with the legs fully extended; Pincha Mayurasana, (peacock), similar to fish but done in a different relation to gravity), deep backbends that can compress the lumbar if done incorrectly like Bhujangasana (Cobra), Dhanurasana (Bow), Salambhasana (locust), Ustrasana (camel), Eka Pada Rajakapotasana II (One Legged King Pigeon), Kapotasan (king Pigeon), twists like ka Pada Rajakapotasana II (noose), Adho Mukha Vrksasana (Handstand), Agnistambhasana (Fire Log pose), Baddha Konasana (Bound Angle) and Savasana (corpse pose).

The only poses in this group that RG is currently doing are Cobra and Locust, always done with a focus on the breath and proper alignment and muscle actions.

6 – <u>General recommendations for the condition</u>

Because RG was tired and low on energy at the start of our program in late March, we spread the assessment and measurement period out over two sessions. We also prioritized that we would work first with just the muscles of his lower body, focusing on the muscles of his ankles, knees and hips.

The ROM of almost all of his lower body muscles was limited. Some muscle strengthening tests could not be done in the early months because they activated pain in his sacrum.

The most striking findings from the initial and then subsequent exams indicated that RG was very weak in the muscles of his outer hips (his internal hip rotators and abductors); his quads, the primary knee extenders; the muscles that extend his hips, especially the gluteus maximus, and his Psoas and Sartorius.

I asked RG to do the Sacroiliac Stabilization exercise that Mukunda had taught in our SYS training as well as the first half of the Joint Freeing Series focusing on strengthening and stretching the muscles of his lower body.

Some of these exercises, RG was able to do sitting on the floor; for others, such as the sunbird, exercises 7 and the hip adduction/abduction, exercise 8, RG did them by standing and leaning his upper body over a chair for support. He did the exercises six days a week on his own and I supervised him each Sunday for 4 months, gradually adding in some modifications and asanas as well as pranayama in June.

The focus of our program going forward was on stabilizing RG's SI joint and strengthening his quads, hamstrings, gluteus maximus, psoas, sartorius and the three muscles that abduct and internally rotate his hips, gluteus medius, minimus and tensor fasciae latae.

As we moved through April, RG did the sacrum stabilization exercises as well as all the Joint Freeing Motions for the lower body under my supervision. He had difficulty doing knee flexion and knee extension and had to do hip flexion and hip extension, JFS 7, as well as the hip adduction/hip abduction exercises, JFS 8, with his body bent forward using a chair for support. He was initially very weak doing both the hip extension and the internal rotation exercises, but could see progress as the weeks progressed. He practiced on his own for the other six days of the weeks.

Throughout May, RG continued to do the sacrum stabilization exercises as well as all the Joint Freeing Motions for the lower body under my supervision once a week. He did 12 reps each of the sacrum stability exercise and then six repetitions at first of each of the JFS movements, and as we progressed, he increased to nine and finally 12 reps of each. To enhance his recognition of the toning quality of each movement, RG moved slowly, extending on the inhale and closing on the exhale.

On May 18, we added Cobra, focusing on strengthening his hip and spinal extensors. He started with three repetitions and gradually built up to 12 done dynamically.

On June 2, RG had micro knee surgery for a small tear in his left meniscus and had to stop doing the JFS knee flexion/knee extension movements for a month. We focused then on regularly working his ankle and hip joints through all ranges of motion.

In our first June session, RG began doing Salabhasana, (Locust) focusing on strengthening his hip extensors, the hamstrings and the gluteus maximus. He started with three repetitions and gradually built up to nine done dynamically and then holding six while holding then lowering one leg at a time in Locust.

In June, I also added the wave breath to his program, focusing on the intercostal muscles that move his ribs. The intent was to use the pranayama to spread the inhale and exhale more evenly from his belly into his rib cage and chest.

At Mukunda's suggestion, I also asked him to focus his inhales and exhales into the muscles that he was moving as he did the lower body movements of the Joint Freeing Series.

On June 29, I added Warrior II and Parsvakonasana, instructing him to do them dynamically for 3 reps if that was comfortable and then hold for 3 to 5 breaths as long as he felt comfortable in the pose. This was to strengthen his hamstrings and quads in the front leg while stretching the quads in his back leg. We were also focusing on strengthening his internal hip rotators and his hip adductors in the back leg and his external hip rotators in the front leg.

Through July, we continued to follow the program we had established: starting with the sacrum stability exercise for 12 reps on each side, then the lower movements of the Joint Freeing Series for 12 reps each and with a focus on the pranayama of the Wave Breath and finishing with a short asana practice, three dynamic movements in Warrior 11, Right Angle, Cobra and Locust, each followed by a hold ranging from 3 to 6 breaths depending on his comfort level.

On July 14, I remeasured RG's ROM and Muscle Strength. He reported feeling much more comfortable in moving his body through a full range of motion and was looking forward to expanding the program to include the movements of his upper body.

Summarization of the results of recommendations for the condition

RG's meniscal tear was repaired arthroscopically.
As of July 27, 20087, he is continuing to do the Joint Freeing Series and light reps of yoga standing poses, primarily Virabhadrasana II (Warrior II) and Parsvakonasana (right angle) to strengthen the muscles around his knees, ankles and hips. He also continues to do Cobra and Locust as well as the Sacroiliac Stabilization series, and light pranayama.
As of the last week in July, he was reporting that his body feels lighter and that his knees, hips and sacrum are not bothering him.
He is committed to continuing doing the Joint Freeing Series and has even introduced portions of it in his classes, reporting that his students like it.
We are about to start doing the upper body JFC movements.

Conclusions:
Because of his reluctance to do much asana, we only addressed his hip adductors and abductors through the Joint Freeing series, pose number 8. In RG's case, he did the exercise, bent over a chair in modified cat and moved his hips side to side from that position. RG has been able to do exercise 5 consistently, however, strengthening and stretching his internal and external hip rotators.

In July, RG was able to allow me to muscle test his hip adductors for the first time which, I interpreted, as evidence that his sacrum was becoming or had become more stable. We estimated a muscle test score of 2 for both hip adduction and hip abduction, weak but for the first time, capable of moving through a test.
As we go forward into the future, I plan to try to release tightness in his hip abductors by having him roll his hips over a large exercise ball or rolled mat.
I am also going to try to release his hip adductors, especially the gracilis, by having him lay on his back, bend one knee at a time, foot flat on the floor, other leg extended, then slowly release and/or drop the bent knee to the outside of his body and into my hand. We'll be looking for the gracilis to soften as it abducts and hopefully lets go.
We will also work on strengthening the hip abductors/internal rotators by adding Warrior 1 and Parsvottanasana to his program as well as Triangle and Bridge.

Asthma
Currently, RG has his asthma under control. He only needs to use a spray occasionally, but he does get out of breath climbing stairs or walking up inclines. Sometimes his nostrils close because his membranes swell and block the air passage.
That happens primarily in the left nostril.
As we started the program, RG was breathing almost entirely using his belly. His ribs were like stone. His chest did not visibly lift.

Goals:
RG's primary goal as we started the program was to minimize pain and stiffness in the left knee and to stabilize the sacrum.
But as we began practicing the Joint Freeing Series (JFS) and adding more Pranayama to the practice, RG began to focus more on mobilizing his ribs, and, at about week six, extending his breath and developing more mobility in the ribs and chest became the primary goal.

Status:

Although RG reports that he still experiences some pain his hips, he is not able to be as detailed about his symptoms as he was before, so I suspect he is being cautious. He also reports no pain in his sacrum and no pain in his knees, giving him the confidence to resume group yoga classes with teachers that he feels safe with.

His last measurement on his sacrum stability in July 2008 reflected a minimal movement upward on his right leg and minimal movement downward on his left leg.

All in all, RG says he does feel better, is committed to expanding our at-home practice and is, as far his temperament seems to allow, him to be relatively upbeat about his progress and confident enough in the benefits of the JFS to teach parts of it in his own classes.

Questions and answers on Yoga Therapy from www.yogaforums.com

Sept, 2008

Q: Hi! I tore my left meniscus this week, went to the doctor today. She says I need to rest for 3 weeks, and massage my knee with warm oil (arnica oil, I'm not sure if it's called arnica in English as well...), and if it doesn't get any better, I need to have surgery.
I wonder if I still can do my yoga. Does anyone have experience with these things? Are there 'healing' yoga poses for torn menisci? Is there anything else I can do to prevent surgery?
I read something about vegan glucosamine, does anyone have experience with it?
Thanks for any response... Annabella

Sept 2008

A. This is a very complex topic and one can go crazy with information overload and varied opinions. One of the best sites for knee problems with personal experiences of people who had surgery (and those who didn't) is KNEEguru - knees, knee pain, knee injury, knee surgery, knee rehabilitation, knee surgeon but as I said the amount of information available there is simply too much to digest. So all I will do is to relate my experience. I want to first say that I could fix my meniscus problem WITHOUT SURGERY after listening exactly to what my Sports medicine doctor and Ortho suggested. These guys know exactly what they are talking about. All you need is some patience and to follow their instructions strictly. Yoga did play a big role in my cure as I am outlining below

> I got severe knee pain after I foolishly participated in a competitive tennis tournament. The diagnosis was torn meniscus in my left knee. After an MRI the Ortho (a very senior doctor who did not seem interested in making money off an Arthroscopic surgery) suggested that I do a series of muscle strengthening exercises and if that does not fix the problem, he will do the surgery. I performed these exercises religiousy for around 6 months almost ... And yes I also took 1000 mg of glucosamine daily for 6 months on the Ortho's suggestion. Yogaforbliss

A.
Sept 2008
I think what you've listed here sounds great for your healing, especially since it has been just a week since your injury.
I know there are Yoga therapists and Ayurvedic practioners who consider each dhatu to be of a certain dosha, and will treat according to that. I prefer to look at the injury and its qualities, along with other personal Ayurvedic considerations, when a deciding on care. Is the swelling a concern? then decrease kapha. is there concern over the heat or fever at the point of injury? then decrease pitta. is there trauma or confusion around the injury? then sooth vata. I think it is also important to consider the circumstances of the injury. May I ask how you incurred your injury?

If you feel you are predominately vata, or presently vata provoked, and are also scared to try something out of fear of making your injury worse, then i would try to pacify that vata provocation with more of the same gentle self care and additional rest. Your doc says 3 weeks of rest and you are fearful of causing more damage; I think you have your answer for the time being. No asana is completely safe when done too early or with a rajasic (or vata provoked) mind. I have found that it is best to wait on action while you are still discerning what is beneficial for you. You are doing such wonderful things for your knee and your sweet self already that you really don't need anything more for now.

You didn't mention anything about foods, but our bodies love ojas-building foods such as soaked almonds, dates, honey, kitchari, etc., especially when it is working hard to heal our tissues. Listening to mantra or singing yourself while you make your meal is another way to boost the ojas in your foods.

You are doing a very good job caring for yourself.
Blessings,
Nicole

Jan 2002
A. The Joint Freeing Series is a set of 22 motions I adapated from the Sivananda School of Yoga to take every joint of the body to its full range of motion (ROM), thus restoring ROM, strength and improving circulation to the deeper joint tissues. It is fully described in my book STructural Yoga Therapy. In terms of a torn meniscus, i would suspect this student has great knee flexion limiations prevening him from doing the full motion as shown in pg. 138 of my book. Instead he should do the motion without his arms assisting. Also i would avoid the obvious poses that will aggravate the knee and do not try to

stretch the knee back to full ROM for sometime, let healing come at its own pace. Avoid hero pose, cross leg sitting on floor - instead sit with legs extended; avoid pulling heel toward buttocks as in Dancer King, Frog, etc. Warrior poses would be good held gently and focus on toning his adductors and abductors. namaste mukunda

Sacrum Pain

Q.
April 2008
Hi there,
This is my very first post on this forum, and - in short - I was hoping Mukunda or one of his students could provide some guidance for a problem I'm having... I purchased Mukunda's book - Structural Yoga Therapy - a little while ago and really thought it was interesting. (I found out I have hyperextended knees, and since Mukunda's book familiarized me with some of the "effects" of this hyperextension, I've been able to consciously correct for them by improving my posture, etc. Also, learning about which poses isolate particular muscles has been quite helpful.)

But let's start at the beginning... I'm a 26 year-old female, married, with no children. I'm an engineer, and my job is rather stressful. The good news on that front is that I am going to be switching jobs soon - to one that I truly believe will be more enjoyable. My husband and I live in a high-rise apartment - we recently purchased a condo, and will be moving in soon! I keep a variety of plants (indoor and outdoor), including orchids! I love to read about all kinds of things- I usually have several books going at once. I also enjoy cooking and other domestic-type pursuits. I've been practicing hatha yoga since I was in college - it's been about 6 years now. It all began when I joined a jujitsu class, and our sensei incorporated the warrior series into every practice. I loved it so much that yoga stayed with me long after I left the jujitsu class. Since I've moved a lot, I haven't stayed with one instructor until recently - I've been with my current instructor for about one and a half years. Her class is like a moving meditation, and she's very passive about adjustments - in that she rarely gives them! I really enjoyed this sort of non-interference in class, but - in hindsight - I think it has contributed to my recent injury. In other words, I believe some of my poses have gotten sloppy, but she hasn't said anything. This has probably become especially problematic since my poses have been steadily advancing in difficulty. If you don't have the basics down perfectly, it's easy to hurt yourself in the more advanced poses. But anyway, that's a side-bar, because I believe my injury occurred while I was doing rather "basic" poses.
During my practice (which I do three times a week - twice with my instructor and once at home), I've been spreading my knees further and further apart while in childs pose. At first, it felt great to release all that tension in my lower back, and spreading my knees seemed to release the tension even further. My instructor said, "spread your knees as far as it feels comfortable," so I have been! In the past month or so, however, I noticed that spreading my knees in childs pose started to make my lower back and hips ache a bit while in the pose. The ache quickly went away when I came out of the pose, and I hadn't been spreading my knees any more than usual, so I basically ignored it - not a good idea. I think spreading my knees so far apart may have loosened up my sacral region too much.

I also do about 7-10 minutes of the warrior series during my practice, and this is where I believe - again in hindsight - I've gotten sloppy. When I would bring my foot up to meet my hands while transitioning from down-dog to warrior one, I used abs less and less and began swinging my foot forward. One day, I did this and pain spread from the right lower side of my lower back/hip area over to the outer side of my hip. This was about two weeks ago. Ever since that day I've felt this ache in my lower back/hip area - just to the right of my spine. It's been worse when I sit down, and it feels like something is out of kilter - rubbing maybe? Also, my right sit bone aches - especially when I stand up and put weight on it. I have discontinued doing yoga altogether - I truly don't know which poses will make the problem worse, and I don't want to risk aggravating it without knowing more. It seems like this area of my body is involved in so many of the poses I do! I did a rapid-walking session on the treadmill, however, several days after my injury, which seemed to make it MUCH worse.
Anyway, I visited a DO a couple of days ago. After I told him what happened, he declared that I had dislodged my SI joint. He proceeded to examine me. He had me walk on my heels forwards and backwards. He had me lay on my belly on a table, while he pressed the area around my sacrum**.** He then told me to lie on one side with my knees bent and press my shins outward (he was providing resistance). I then did that on the other side. Then, with me in that same position, he proceeded to quickly twist my lower body, which seemed to crack a bunch of stuff down in my lumbar and sacral region. He did this with me lying on both sides. He stated that he had put the SI joint back where it belongs and I should notice marked improvement.
Since that visit, I have noticed SOME improvement - the ache in my SI region is certainly less frequent. Prior to my "adjustment," the ache had been constant. I expect that any inflammation which is present will probably take a few days to go away. However, the ache in my sit bone is still present, and it hurts a lot to traverse stairs.
My question to you is this - is it even possible to put the SI joint back into place, as the DO claimed he did? Also, if my SI joint is back in place, what can I do to keep it moving properly? Does this problem completely resolve or is it something that will always be with me? I know this is a long post, and if you've made it this far - thank you. I'd appreciate any help you can provide. Orchid

A.
April 2008
Hello Orchid.

Yes, it is possible for the sacrum to move in a way that it is not intended to move. Thus, "yes" it is possible to adjust, set, or realign it.
With SI dysfunction (which is a broadbrush term) it is possible, no, probable, for the musculature surrounding it to spasm, seize, or generally become unhappy. It may take quite some time to "recover" and that would depend on your lifestyle, nutrition, and your practice.
You may also have some other things going on at the same time. Only rest and time will tell.
I'm giving you a brief reply based on your question, though the topic can go on ad nauseum. InnerAthlete

Reply
April 2008
InnerAthlete,
Thanks so much for your quick reply!
I think I was skeptical about the possibility of "setting" or "aligning" this joint because it doesn't appear to be like other joints in the body, which can experience relatively large amounts of movement. I think it would be difficult to tell if one has truly reset this joint at all (by moving it mere millimeters?), unless of course pain diminishes after the adjustment. So I guess we'll see what happens!

Your comment about the surrounding musculature makes a lot of sense. I'm sure I really strained all of my glut muscles and perhaps the hip flexors. I imagine any problem with these muscles can directly effect the stability of the entire area.

As for my lifestyle, it mostly consists of sitting, standing, driving, and walking right now - this is the bare minimum of activity I can get away with. I plan to ask the DO what types of exercises I can do without aggravating the area, because I really hate sitting still and I don't want my muscles to atrophy. I'm prepared for the possibility that I might not be able to do much for a while though. My nutrition is pretty excellent - little or no processed foods, no red meat, lots of fresh fruits and veggies, etc.

Thanks again for your thoughts - like you say - it seems like only time will tell. It's certainly unfortunate that I hurt myself, but it's been quite a learning experience, as far as my approach to my practice is concerned... Orchid

Reply april 2008
Well, it's been about a week, and I thought I would log how my recovery is going. It's been very interesting. The pain around the SI joint has dissipated, no doubt in response to my prior adjustment of the sacrum**.** However, the muscles in my right posterior have remained irritated. I went back to the doctor for another checkup, and he told me that the piriformis muscle was extremely tight. Apparently it was also pressing against my sciatic nerve. This piriformis/sciatic nerve problem is evidenced by my right toe turning about 15 degrees to the right when I'm standing in mountain pose, as well as general pain and tenderness on the piriformis muscle and in "patchy" areas on the outside of my right leg. The doctor prescribed some stretches for the groin and hip, as well as some OTC ant-inflammatories. So far, the piriformis doesn't enjoy being stretched, but I guess the stretches are important to restoring complete range of motion in the muscle. According to my research, since the piriformis connects to the sacrum near the SI joint, SI joint problems and piriformis/sciatic nerve problems are sometimes found together. Anyway, I'll keep doing the stretches - hopefully that helps.

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Biography

Liz Parks is a freelance journalist and yoga teacher. She has studied with, among others, Mukunda Stiles, Alan Finger and John Friend.