

Yoga Therapy: Herniated Lumbar Disc – Back Pain A Structural Yoga Therapy Research Paper

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1.) Case Study

A.) Initial intake, review of symptoms, subjective pain level, her self assessment

I first met Allison (pseudonym) in the spring of 2005 when she had a private yoga therapy session with Mukunda Stiles at Integral Yoga Institute, where I was observing as an apprentice. I met her again that summer, when she attended a Hatha yoga workshop on alignment which I taught at IYI. After the workshop she expressed to me that she had found what I presented to be useful. In the Spring of 2006, she asked me about a recent diagnosis regarding back pain, and general postural issues related to that; I felt I could help – and our work began. The details about Allison’s history, and the clarity about what to focus on emerged over the course of our first few meetings.

Allison is 52 years old, happily married with two teenage male children, and currently in the Basic Level Teacher Training at Integral Yoga Institute with the goal of beginning to teach Yoga. She is very committed to integrating and applying Yogic concepts in her life, and to sharing these with others who face physical challenges. Allison has been through a variety of medical procedures with major impacts on her body starting in 1999, practiced Yoga throughout these events, and has great faith in it as a tool for healing. She experienced that restorative physical postures and breathing exercises helped her regain functioning and sensation after being somewhat immobilized for a period of time. Allison also has a sense of humor, compassion, and patience about her past and current experiences which I find consistently inspiring and intelligent.

Allison’s osteopath is currently recommending that she return to physical therapy to address her chronic back pain issues. She has decided instead to explore how Yoga might help with this specific problem. Her stated reason for beginning our work is concern about stenosis and herniated discs in her spine, which are causing painful nerve impingement. The experience of pain from this is not new, but has recently gotten worse. She has been told by her osteopath that this type of compression has the capacity to affect bowel, bladder and sexual function (Cauda Equina Syndrome), if not addressed. According to the MRI report her spine looks like this:

- L2 – L3 Posterolateral small herniation, mild central spinal canal stenosis.
- L3 – L4 Right foraminal herniation. Compression of adjacent right L3 nerve root. Moderate central spinal canal stenosis.
- L4 – L5 Central disc bulge. Moderate central spinal canal stenosis.
- L5 – S1 Central and foraminal herniation.

This is summed up in the report as “Multilevel degenerative disc bulges resulting in multilevel central spinal canal stenosis most prominently at L4 – L5.” I feel clear that attempting to understand and stabilize her spinal situation is the primary reason for our work together, although Allison shares other concerns during our first few meetings.

Some are related to what is occurring in her spine and some are not. These are:

- Pain issues from the medical events that have occurred in the last seven years. Myofascial constriction from scar tissue and neuropathy in the feet, especially right foot.
- “My right leg feels unable to engage.”
- “I need to shift all the time to keep the pain from settling in.”
- “Practice takes up to two or three hours – too much time.”
- “I want more root engagement and lower abdominal support.”

I know that Allison's abdominal muscles are assisted by mesh through previously attending her private session with Mukunda. During our first few sessions, she tells me the medical procedures that caused this to occur, and how it has affected her since. As these events caused major postural adjustments and lifestyle changes for Allison, I feel that understanding this history is an important part of the picture, and include it here in brief. In March of 1999 she had an operation to remove an ovarian cyst on the right side; this ended up nicking her bowel, causing an infection and inflammation which spread massively in four days. Unfortunately, hospital staff were unaware of the severity of her condition – her life was quite literally saved by her sister (a nurse), and husband, who dragged Allison's portable bed from the Ob-Gyn floor into the emergency room, pointing out that something needed to be done immediately! From March until the end of May, Allison was in a drug induced coma with the belly left open for several operations. In June, she went home with this open wound, using a colostomy bag, and began a gentle Yoga practice. Having Yoga at this time was a powerful experience for her; it built both physical and spiritual strength. When the inflammation was finally reduced enough to close the belly, the muscles had changed shape, and needed an additional attachment to perform their standard activities. In November, she had mesh support attached to her abdominal muscles in order to assist the function, a complete hysterectomy was performed to prevent more cysts, and 8 inches of dead colon tissue was removed before reconnecting it. From 2000 – 2004, she practiced Yoga with several private teachers, and found it extremely helpful for managing the variety of changes in both body and mind after these medical events. In December of 2004, Vioxx and Celebrex were both taken off the market, and she realized that she was in a great deal of pain. In February of 2005, her editing job for a well known newspaper became much more stressful, working long hours at a desk. During this year, she also began swimming and practicing Yoga both two times weekly, and attended physical therapy for back pain from September to December.

She sums up her current back issue as something that has been chronically sore since 2000, but became very aggravated since April 2005 when she strained her back as she was "trying to get up into shoulderstand." She assesses her pain level in the lower back as ranging from 7 – 8. By our third session, I have quite a bit of her history, and a clear idea what to focus on for ROM and Muscle Testing. We also discuss how Mukunda's recommendations for her have been working, and I use these as a guidepost in looking at what to focus on for my assessments and primary recommendations. Mukunda's assessments indicated that she needed strengthening of the hip flexors such as Psoas and Sartorius, the hip extensors, especially Gluteus Maximus, and the Right Abductors, among other findings. After looking at my own assessments in 1B, I will discuss (later in this paper) Mukunda's recommendations for Allison and how we utilized them.

Posture and Body reading

Allison is about 50 lbs overweight and is seeing a nutritionist to work on this area. She states that the weight gain is a result of the stress and decreased mobility in her life after the operations in 1999. Prior to this her weight remained average until her mid – 40's, when the cycle of medical events brought a change of course into her life. She feels that she is primarily Pitta temperament, but that the long periods of immobility brought out more Kapha, particularly the challenging aspects such as retaining weight. I agree with Allison and feel that her current disposition is mostly Pitta/ Kapha. Although weight loss is not the primary goal of our work together, being overweight is a contributing factor in her spinal challenges, along with the changes to her abdominal muscles, so I encourage her to continue the work she is doing already in that area. Viewing her from the side

there is a slight kyphosis in the upper back, slightly rounded shoulders, tendency for forward head, and flattening in the lumbar spine. My test of the sacroiliac joint indicates the right side as moving down and left moving up. I feel the difference between the two sides might indicate inflammation, or a protective “gearing up”, on that right side, hence less mobility. It is also an indication of Vata not being in its home – presence of pain and tightness in the body. Lying supine, Allison’s right leg is slightly turned out and the left leg is turned in -- She describes the right leg as feeling unable to “engage and sit properly into the hip joint – as though it is just hanging out to the side.” The internal rotation for both legs feels tight upon turning feet in and testing. When she turns on to her belly for measurements, the left leg appears to be longer than the right. After taking ROM measurements for both Allison’s upper and lower body, I saw that it was normal or beyond in most areas. This is not where Allison needs work. Due to the nature of Allison’s complaint I focus on lower body for ROM information and Muscle Testing. As Mukunda’s session indicated, it is in strengthening that she will most benefit.

B.) Examination Records

Range of Motion Assessments							
Joint Action	ROM	5/20	5/20	8/15	8/15	4/10	4/10
	Norm°	Left	Right	Left	Right	Left	Right
HIP							
Flexion (Bent Knee)	135°	116°	92°	113°	110°		
Flexion (Straight-Leg Raise)	90°	85°	81°	90°	76°		
External Rotation (Supine)	45°-60°	30°	56°	60°	50°	58°	52°
Internal Rotation (Supine)	35°	22°	11°	35°	25°	35°	29°
Adduction (Side Lying)	30°-40°	30°	23°	31°	28°	30°	26°
Abduction (Side Lying)	45°	47°	37°	46°	38°	44°	37°

Muscle Testing Assessments						
Joint Action	5/27	5/27	8/15	8/15	4/10	4/10
	Left, 1-5	Right, 1-5	Left, 1-5	Right, 1-5	Left, 1-5	Right, 1-5
HIP						
Hip Flexors & Abs (Supine)	1	----	1	-----		
Trunk Flexion (Supine)	0	----	0	-----		
Hip Flexors - Bent Knee (Supine)	3	2	3	3		
Iliopsoas Isolation (Supine)	4	3	4	4	4	4
Sartorius Isolation (Supine)	5	5	5	5	5	5
Abduction (Side Lying)	4	3	4	4	4	4
Adduction (Side Lying)	4	3	4	4	4	4
Gluteus Maximus Isolation (Prone)	2	2	3	3	3	3
External Rotation (Prone)	4	3	4	4	4	5
Internal Rotation (Prone)	4	2	5	4	5	4

UPPER BODY PRONE						
Lower Spinal Erectors	3	----	4	----	5	----
Upper Spinal Erectors	3	----	4	----	4	----
Middle Trapezius	3	-----	5	----	4	

C.) Summary of Findings

Tight Muscles	Weak Muscles	Muscles to be Released
Gastrocnemius	Lower Spinal Erectors	All Spinal Erectors
Soleus	Gluteus Medius -- R	Lattisimus
Pectoralis Major Clavicular	TFL -- R	
Serratus Anterior	Gluteus Minimius -- R	
Anterior Deltoid -- R	Deep Hip Rotators -- Both	
Upper Trapezius	Gluteus Maximus -- Both	
	Psoas -- both	
	Pectineus - R	
	Adductors Br, Long, & Mag-- R	
	Gracilis -- R	
	Rectus Abdominus	
	Middle Trapezuis -- Both	
	Posterior Deltoid -- R	

D.) Recommendations

June 16

I did utilize Mukunda's assessments and recommendations in the work I did with Allison. Their main focus was her need for abdominal support, whereas our focus was to learn more about how that lack of abdominal support, as well as other postural considerations, had contributed to herniated discs, and what we might do to address that. (It was clear from the MT readings that the asanas he had given her to increase strength in hip flexors had been quite effective. Although Allison's ROM for bent knee hip flexion was below normal, I felt this was due mostly to her deconditioned abdominal area coming into the way.) I built on Mukunda's work in two ways 1.) We kept the practices from her initial session with him that Allison said she wanted to continue. We looked at how these were going and I offered suggestions and answered questions about how to deepen her experience 2) We let go of practices that she felt ready to move on from, and I gave her some new practices to add in, as would be expected after one year. As I began to read about herniated discs, I saw a consistent theme that loss of the natural lumbar curve is often a major factor in discs degenerating. I will go into this more in section 2. As I thought about what my assessments had indicated, and also about how the spine functions in combination with the pelvic girdle, I felt that getting her right leg stronger was key to creating grounding through both legs. I also proceeded on the idea that getting the right hip more consistently engaged in the socket would release pressure on the back of the spine and lumbosacral area. Here is what I gave Allison to do and why.

- JFS, 5: Right Leg Dynamically 12X, Left Leg 6X, with more focus on second part, internal rotation of hip. Strengthen internal hip rotators and adductors.

Mukunda had given her this to do; after a year of doing it often, she felt “*the hip coming back into place.*” So we kept this, and added in six more repetitions than with Mukunda.

- JFS, 7: Both legs. Dynamically. Leave leg in hip extension only and turn out / in 6X. The idea of getting her internal rotators and adductors working was key here. Mukunda had given her this to do, but focused on bending leg with foot up to work Gluteus Maximus. I continued this by having external rotation here, but added in the internal rotation. Mukunda had given me the movements of internal and external hip rotation to do while in Locust pose, and I felt it had opened up much more flow in the hips and ability to modulate spine and nervous system.
- JFS, 8: 6 -12X Dynamically depending on how it feels. “*Focus is on squeezing legs together and feeling adductors engaging strongly.*”
- JFS, 16: 6X Dynamically. Scapula adduction and spinal extension to increase lumbar curve and strengthen Middle Trapezius, *slight* scapula adduction and spinal flexion to relieve back stiffness from lack of play between abs and spinal muscles. Caution on spinal flexion here due to disc herniation, although herniation is in Lumbar spine.
- Warrior I (Virabhadrasana): 6 – 10 breaths held Statically. Instructions here were to focus on “*adductors engaging, TFL engaging, hips facing front.*” This pose also is good for stretching the Gastrocnemius and Soleus, increasing abdominal strength and breath capacity in ribcage, increasing lumbar curve, and building strength in Middle Deltoid, all of which applied to Allison’s needs.
- Rolling Bridge (Setubandhasana) : 6X Dynamically. Instructions here were to “*use a block between knees and focus on squeezing it with the rolling.*” Also to “*roll up slightly and exhale finding Udiyana Bandha, then continue rolling up while inhaling, then rolling down again on an exhale.*” Mukunda had given her this to do to work with the Latissimus and abdominals. We continued this focus, and I also encouraged awareness of the pelvic floor and building Gluteus Maximus.
- Supported Shoulderstand (Salamba Sarvangasana): 1 – 2 minutes with feet on the wall. Mukunda had given Allison this to do and she liked it. A primary goal is using the breath and gravity to access the Bandhas. She had initially found the breathing instruction of “*from the top down on inhale, from the bottom up on exhale, and adding root lock at end of exhale*” given by Mukunda awkward to practice, as it is different from the three part Deergha Swaasam taught at Integral Yoga where she practices regularly. But she had also, in the meantime, taken some classes with a Viniyoga teacher who taught this pattern and begun to grasp it. I have studied with Leslie Kaminoff, who explains clearly the differences between Desikachar style breathing and classic Three Part breath, and also read Mukunda’s chapter on breathing and the diaphragm in *Structural Yoga Therapy*. These helped me explain to Nancy the rationale for both approaches, and why the Desikachar approach was more beneficial in her case. Due to her abdominal muscles being supported by mesh she benefited most from a system that emphasized a strong exhale starting from the belly area – this helped to bring the pelvic floor area in as much as possible. Due to being a Yoga teacher in training herself, she especially enjoyed experimenting with, and understanding different breathing approaches.
- Variation on Boat Pose (Paripurna Navasana): 6X Dynamically. Variation performed is lying on the back with knees bent and feet on floor and raising body partly up as in a “crunch”. I felt that with the need for abdominal strengthening this would help to tone the muscles in upper rectus abdominus. Due to disc

herniation as well as pre-existing tightness in Serratus Anterior and Pectoralis Major I emphasized keeping the chest open, raising the body up only very slightly and “*keeping the belly flat and lengthened while allowing the back to gently arch if that occurs.*”

- Locust Pose (Salabhasana) 6X Dynamically. I emphasized rotating the right leg out slightly, and then in firmly with the exhale. This was an extension of what I had given her to do in JFS 7A. The goal was to engage the right leg more firmly into the hip socket, thereby increasing natural lumbar curve and releasing the pressure on the Lumbosacral area which was causing it to flatten.

Optional Poses

The instruction regarding the following two poses is that they are optional and only to be added in if there is extra time, or an additional need for building parasympathetic nervous system activity.

- Abdominal Twist (Jathara Parivartanasana): 6 – 10 breaths held Statically while focusing on “*ribcage twisting around, inner leg crossing over, and release of achey back muscles.*” This pose builds strength in adductors and Abdominus Oblique, while also stretching Gluteus Medius and Latissimus, all of which applied to what Allison needed. It can also be good for stretching the Pectoralis Major and strengthening the Posterior Deltoid, which were also good for her goals. Another additional benefit is the effect on the nervous system. Poses which are done lying on the floor, where we don’t need to use abdominal wall for support, can be used to emphasize deep breathing with belly rising and falling. This helps to stimulate parasympathetic nervous activity and deepens pranic vitality.
- Supported Child’s Pose with Bolster: Held for 10 – 20 breaths or longer if it feels good. This pose was intended to address the tense muscles in the back, particularly the Lattisimus. Due to disc herniation, I emphasized keeping the back in a relaxed yet flat (rather than rounded) position and breathing very deeply into back muscles.

An additional note: because Allison had much experience in yoga studies already and was training to be a teacher, I did not spend a lot of time with relaxation, Yoga Nidra and Pranayama; she was already doing these and the main reason for our focus together was to prioritize the anatomical aspects.

E.) Results of Recommendations

August 24

Allison and I meet to check in on how it has been going for her. We have not been able to meet earlier due to both of us traveling for vacation and for work during the summer months. Allison is very excited to report back to me the results of what I have given her to do. I had explained to her my theory about internal rotation restoring her lumbar curve and relieving pressure on the back of the sacrum, and she says that knowing this helps her to “visualize the results” She feels that the muscles around the right leg are getting

consistently stronger, and that the right and left sides are more balanced. Her pain levels are down to a 6 “after practice” and she feels that the right leg is engaging more into the hip. She enjoys” feeling the push off with my right leg as I am walking, and trying to feel the connection flowing from my feet up through the hip.” She shares that she feels “energy through the right leg” and that “internal rotation opens up energy flow through the whole body.” She feels that the internal rotation is helping to “increase the lumbar curve and create spaciousness in the sacroiliac joint.” Her ROM assessments and Muscle Testing do indicate that the right adductors are becoming stronger, right internal rotation increasing, left external rotation increasing, and the two sides of the body becoming more balanced. Allison says that she wants to continue with the practices she has been doing up until this point. She feels that everything has been effective, and wants to keep developing what is happening. Her average amount of practice from June through our meeting in August has been 2-3X weekly with the practice running up to 2.5 hours. She attributes this length of time to the fact that it takes her body some time to mobilize after a night’s rest, due to having scar tissue and neuropathy. She would prefer that her home practice not take up so much time, but feels there is value in everything she is doing. The only asana she feels lukewarm about is the variation on Upward Boat, so we decide she can cut that out, if time feels limited for practice, and focus on Rolling Bridge/ Udiyana Bandha as the primary abdominal asana for now. At this time she has begun teaching up to two group classes regularly on a weekly basis, usually attends a Hatha I level class at Integral Yoga Institute also weekly, and is teaching one client privately using gentle yoga approaches.

Oct 31

It is Halloween and amidst the yelps and hooting from outside the window, Allison and I meet up to review what has been happening for her. She has continued to feel the benefit from the JFS Exercises and Asanas, but is frustrated with the amount of time her practice has been taking. This was an issue she brought up as a general concern on our very first meeting. Since mid - September she has only been doing the SYT practice 1X weekly due to becoming more busy, but has continued to take Hatha I classes 1 – 2X weekly and focuses on “incorporating many of the movements into the class itself.” We realize that this is an important piece of information for both of us to take in – in order for an individual to be consistent with any sort of prescribed Yoga Therapy practice, it must feel manageable in relation to other life responsibilities. Since Allison is also a teacher, and works with others privately as well, she is curious to look more deeply into this topic. Some of the concepts around this from SYT training that I share with her are 1) What are the client expectations, what do they believe is possible? 2) How much time do they want to invest? 3) Do they already practice Hatha yoga regularly or do another kind of physical activity? 4) Are they already practicing other aspects of sadhana regularly? If not, then are these to be part of the Yoga Therapy program? I explain that I see these 4 points (among others) as guideposts for looking at what to give for a practice. Allison had already added in pranayama and meditation to her practices -- following the Integral Yoga system; these are potentially added in at a different time if there are schedule limitations. The Integral Yoga approach to pranayama is Deerga Swaasam/ full diaphragmatic breathing, Kapalabhati and Nadi Suddhi. After the breathing practices she meditates for up to 20 minutes. When she does practice Asana, Pranayama and Meditation all within one session, she experiences “releases happening after Pranayama practice. “ She experiences Kriyas, and is grateful for this re-awakening of her own sensations. After the trauma her body has been through, there are often many Kriyas happening for her. Knowing that these experiences have a name, and are part of the

intelligence of pranashakti at work is helpful for her. In our first session she had shared with me that one of her yoga teachers seemed to view Kriyas as restlessness, rather than understanding them as the body purifying and moving into deeper levels of balance and Sattva. So it is affirming for her to understand that these experiences are part of a healing process.

This is also a time when Allison is moving deeper into a connection to Yoga on levels beyond the physical. She feels that the work with internal rotation is symbolic of “moving within – looking inward.” Through this observation I can see that Allison is experiencing Kriya Yoga, Sutra I in Book II of Patanjali’s Yoga Sutras. “The practical means for attaining higher consciousness consist of three components: self – discipline and purification, self – study, and devotion to the Lord.” (Stiles, 2002) By applying the steps of Kriya Yoga she is able to move through the koshas, finding balance in each and experiencing progressively more subtle levels of awareness. She has physical challenges in the Annamaya Kosha, but continues to work towards feeling balance, and uses Asana as the means to connect to the Pranamaya Kosha -- vibrating with the powerful life force energy. A passionate interest in all that Yoga has to offer, on every level, began with her very first class and clearly continues. Using her own experiences as her guide, she is following through with the vision of bringing Yoga to populations which she feels drawn to serve, such as those in hospitals or requiring very gentle practice. Instead of focusing on all the aspects of her life which could be challenging or frustrating, or on what she has lost in the last 8 years, she sees everything that has happened to her as opening the door to her current path. She clearly has a connection to the Vijñanamaya Kosha, the ability to seek the truth, rather than respond from past conditioning. She is moving from darkness to the light, from the unreal to the real, and in that, finding moments of bliss, experiencing Anandamaya Kosha. She gives me the gift of a “Yoga Nidra” CD which she has recorded for use with her private students, and also shares details about a workshop she is planning to teach at Integral Yoga called “Yoga in the Third Age”, focusing on both the physical and spiritual aspects of practice for those moving into their late fifties and sixties. I am moved and inspired by her ability to embrace and transform the Karma that has come to her. Through the practice of Kriya Yoga, or Yoga of Action, we apply each response as appropriate and in so doing open the doorway to deeper levels of awareness, discernment and ultimately surrender – feeling the universe flow through us as us. She is making effort (Tapas) to maintain the necessary level of health for functioning and for diminishing pain, while also studying scripture, listening to herself, and building discernment (Svadyaya). This discernment is allowing her to unfold into accepting and surrendering (Isvara Pranidhanam) to what has been brought to her, trusting the universe. She is practicing Yoga in Action. In observing her actions and listening to her, I also learn about how the doshas and gunas are functioning for her. She has a good degree of sensitivity and it appears that her perceptions are mostly clear and accurate --this is an indication of balanced Vata. She still has physical pain, but states that “it remains at 6 if after practice.” She has the necessary strength to do her sadhana, is continuing to move forward with actions of teaching yoga to others, and is able to concentrate on projects and make decisions; subtle Pitta is performing it’s function. The need to continue losing weight, as well as pain levels, still give her occasional days when she feels Tamasic -- low in energy, unable to make decisions, and slightly discouraged. Although on the spiritual level her Kapha appears balanced, bringing her a wonderful maturity and devotion to life, she feels both heavy and somewhat weak in regards to the physical body. Kapha being out balance in this way affects the capacity for Pitta and Vata to be balanced. Reducing the Tamasic aspect of Kapha is a priority for her to feel at her best. We also need to focus

on the topic of how to shorten the current practice so that it feels more manageable, yet still fulfills her needs. I encourage her to eat the largest meal between 11 – 3 (for purposes of weight loss, minimizing ama, and maximizing digestive activity), practice more Kapalabhati (for the purpose of building digestive fire), continue with the locks as she has been doing, and to try retiring early and making sure to get **some** sadhana practice in the mornings; these aspects of a classic yogic lifestyle will increase the vitalizing and strengthening aspects of Pitta, balance Vata, and decrease Kapha imbalance.

We settle on the idea that she can still try to do the **full** practice 1- 2X weekly, and apply any of the practices while in a group class, but also have an alternate plan for how to handle practice at home. We set a goal of having a **minimized** home practice 2X weekly which would look like this:

- 10 minutes of warm – ups including one for the upper body, lower body and the spine.
- 20 minutes of Asana including one standing pose, one backbend, one of the practices using bandhas, one restorative pose, and a brief Yoga Nidra.

She could alternate which of the poses she chose to practice on each of the days as long as it fit this template, and also add in Pranayama and Meditation at this time, or at another time. Although I had praised the benefit of a meditation practice since our first meeting, she had chosen to add this in herself, and I felt it was best that she continue to decide how to fit it in. She shared that she was practicing meditation between 4 – 6 times a week usually for about ½ an hour.

February, 2007

After moving through the holiday season Allison and I are looking to check in, possibly for the last time, to complete our work together. However, she has come down with Pneumonia and says that she will be in touch when she is better.

April 10

Allison is finally feeling better and we meet to catch up on what has been happening for her. The shortened practice as an alternate had been effective for her in encouraging structure, while also feeling in control of time. She enjoyed using a “Gong Timer” to track the progress of a session for herself. However, due to coming down with such a severe case of Pneumonia after the New Year, she had to curtail most of her practices for several months. She was put on the steroid Prednisone to open her lungs and this caused her to gain weight again, moving back up to 230 lbs. She feels clear that decreasing her weight has to be the primary goal at this time, and has shifted her practice priorities to working out in the gym 3X weekly. She explains that she began with riding the stationary bike for 20 minutes and after several weeks has now worked up to 35 minutes keeping the heart rate @130. She adds in some elements of her yoga practice either before or after the gym work – and practices Yoga Nidra in the gym with an Ipod. She appreciates the challenging aspect of gym exercise for balancing Kapha and reducing weight gain. She also has continued to keep the focus on internal rotation in whatever movements she is doing. She focuses on “feeling a connection from three inches below the navel to the top right corner of the sacrum”, “letting the right femur sink into the hip socket like a pebble into water”, and consciously “putting the tailbone out –

increasing lumbar curve in the spine.” She reports that “the MRI may be the same” as when she began our sessions, but her subjective experience is “less nerve inflammation, more space, more strength/ less pain.” Her ROM and MT results for this session show that she has maintained much of the strength increased around the lower back and hip area, and that the ROM for the two sides of her body show less extreme differences than 9 months previous.

Although Allison feels hopeful about continuing to increase progress in all the areas she has developed, and is excited about her energizing new gym routine, she also communicates that she continues to have problems with elimination due to lack of nerve function to the colon area. “Elimination was never an issue before this injury. Constipation is a little worse than 9 months ago, and sexual sensation is a little less.” We agree that she needs to continue monitoring the area, and keep her mind open to medical as well as holistic options for maintaining necessary functions.

I see that I have not had a clear idea of what we will consider as a stopping point in our work, and communicate that this is an important aspect in having clarity for both parties around the work that has been done, and having appropriate closure. I feel this is an appropriate time for our work to have completion and convey that to her. Allison agrees with me, and expresses gratitude for the work we have done. We agree to stay in touch for questions that come up in the future, as she continues to work on understanding and addressing the topic of disc herniation in her spine, and it’s affect on her capacity for daily activities and quality of life.

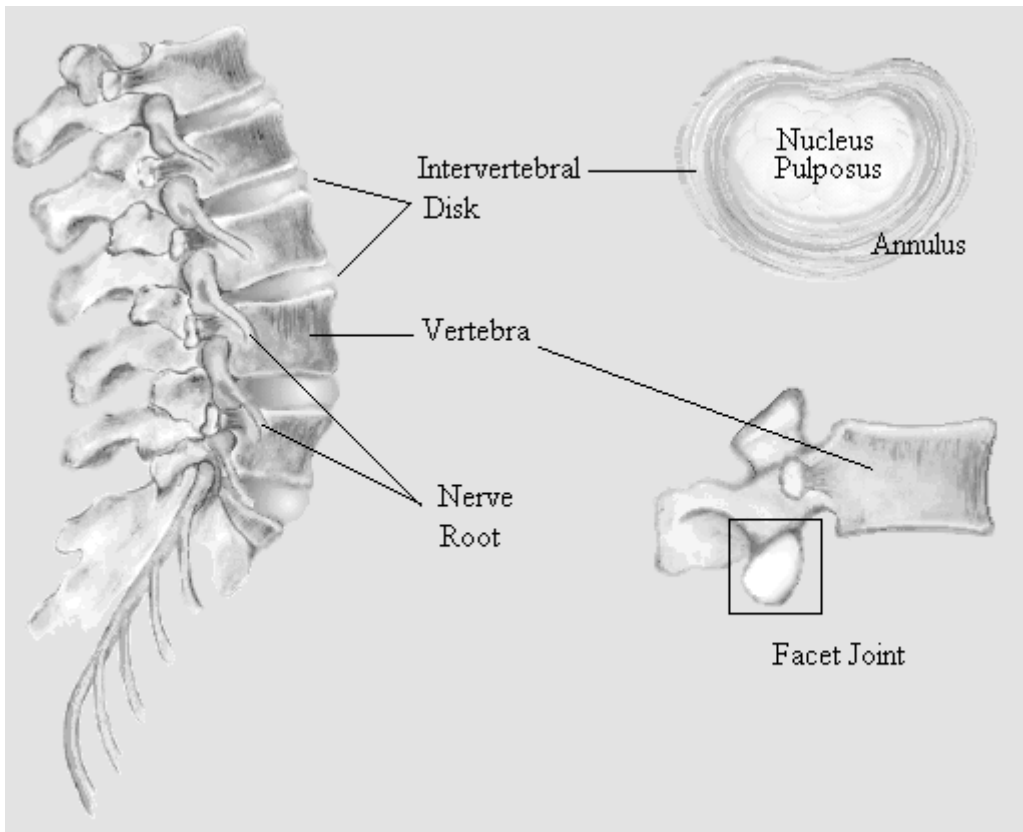
2.) Name and Description of the Condition

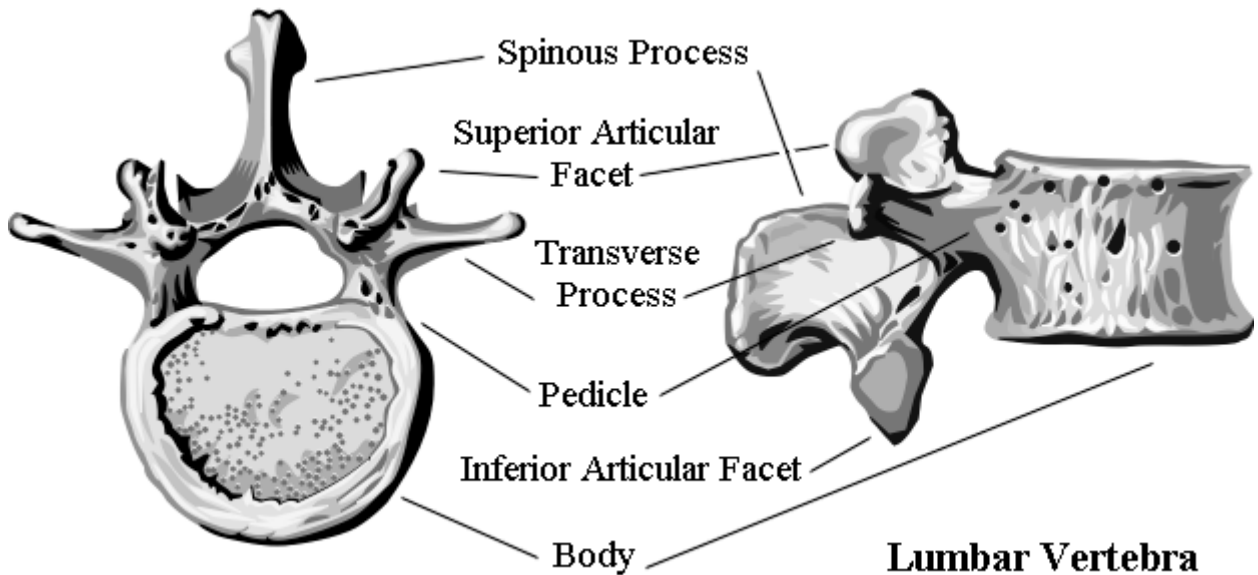
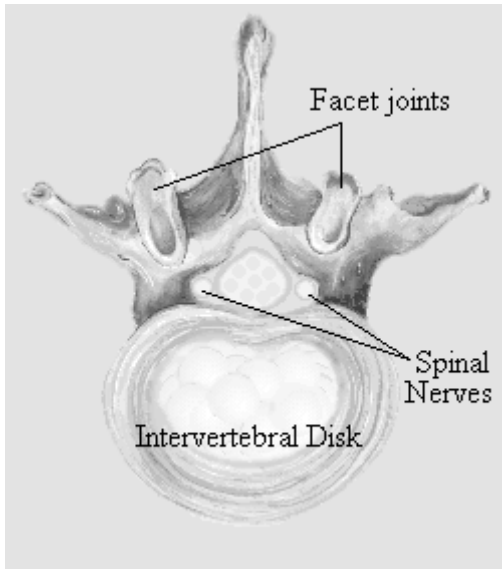
A.) “When people say they have a "slipped" or "ruptured" disk in their neck or lower back, what they are actually describing is a herniated disk—a common source of pain in the lower back, arms, or legs. Disks are soft, rubbery pads found between the hard bones (vertebrae) that make up the spinal column. The spinal canal is a hollow space in the middle of the spinal column that contains the spinal cord and other nerve roots. The disks between the vertebrae allow the back to flex or bend. Disks also act as shock absorbers. Disks in the lumbar spine (low back) are composed of a thick outer ring of cartilage (annulus) and an inner gel-like substance (nucleus). In the cervical spine (neck), the disks are similar but smaller in size. A disk herniates when part of the center nucleus pushes through the outer edge of the disk and back toward the spinal canal. This puts pressure on the nerves. “(www.orthoinfo.org) A ruptured disk is when the gel like substance (the nucleus) itself has begun to leak through the annulus casing, and on to the nerve root. This substance is irritating to the nerve root and subsequently causes inflammation.

B.) Gross and Subtle Body Common Symptoms

Spinal nerves are sensitive to even slight amounts of pressure which can result in pain, numbness, or weakness in one or both legs. The most common symptom of a herniated disk is sciatica—a sharp, often shooting pain that extends from the buttocks down the back of one leg. It is caused by pressure on the sciatic nerve. This is a Pitta imbalance because it is an inflammation. Other symptoms include: weakness in one leg (Kapha symptoms – muscle weakness) , tingling (a "pins-and-needles" sensation) or numbness in one leg or buttock (Vata symptoms) . These symptoms may also include the

possibility of compromise in the nerves that affect elimination and sexual function – this is known as cauda equina syndrome. “The cauda equina nerve roots provide the sensory and motor innervation of most of the lower extremities, the pelvic floor and the sphincters. In cauda equina syndrome, multiple signs of sensory disorders may appear. These disorders include low-back pain, bilateral sciatica, followed by motor weakness of the lower extremities or chronic paraplegia, and bladder dysfunction. Multiple etiologies can cause the cauda equina syndrome. Among them, compressive etiologies such as herniated lumbosacral discs and spinal stenosis play a significant role.
“(www.pubmed.org)





Some of the subtle body common symptoms that can be experienced with disc herniation are a difficulty in feeling the rebound effect of prana in relation to the earth. The curve in the lumbar spine supports this rebound effect because of how it helps distribute weight from the torso on to the primary weight-bearing structures of the pelvis and legs. When the curve in the lumbar spine is flattened beyond the normal range, this

can create tension through the entire skeletal structure due to lack of healthy communication between spine and pelvis. Tension from instability in the lower spine can potentially affect up as far as the neck area, and down as low as the feet. It is common that an area of pain results from challenges in the body area above the pain. The fascia throughout the body is connected, so a skeletal or muscular imbalance in a higher area results in compensation, and often, pain, in the lower area. A common example is the relationship between the knees and the hips. When there is a limited ROM in the hips, the knees may experience challenges due to the fact that they compensate for tightness in the hips. In the case of slipped lumbar disks, a potential lack of dynamism in the lower spine may affect the area either above it or below it. Rebound affect also relates to the interplay between the downward aspect of pranic energy flow, known as Apana and the upward flowing prana, Udana. They enliven and encourage one other. So when the energy is collapsed towards the earth rather than responsive, this does not encourage a healthy dialogue. When prana is not flowing well through the lower spine and pelvic areas, this affects Vata dosha which is what allows Apana prana to function with ease. Apana functions include the elimination of waste from the bowel and the bladder through the base of the body. Birthing a baby and eliminating menstrual tissue are also functions which are stimulated and carried out by the downward Apana pranic flow. Apana flow will be affected by the nerves affecting these elimination and reproductive functions if they are at risk for compression. Another subtle body symptom which Allison manifested (which is common) was the inability to stay in any one position for too long. Staying in one position increases the possibility for compression around the nerves, producing pain and stiffness. There is often a very acute sensitivity and need to make constant subtle adjustments in posture, even at times when others can sit in stillness.

C.) Related Challenges – lifestyle, diet, limitations on activities

Finding movements which are possible to engage in, yet do not cause more pain is a necessary lifestyle activity to address when working with herniated disc injury. Fear of creating pain can lead to lack of motivation for movement and deconditioning. This in turn may create weight gain and decreased activity, which will worsen any condition of compression. So finding non - weight bearing activities to engage in, such as swimming, may be a supportive addition to any Yoga Therapy practice. “In children and young adults, disks have high water content. As people age, the water content in the disks decreases and the disks become less flexible. The disks begin to shrink and the spaces between the vertebrae get narrower. Conditions that can weaken the disk include:

- Improper lifting
- Smoking
- Excessive body weight that places added stress on the disks (in the lower back)
- Sudden pressure (which may be slight)
- Repetitive strenuous activities” (www.orthoinfo.org)

Including stress reduction practices like Meditation and Pranayama into one’s lifestyle is also helpful; by experiencing a perspective of expansion and connection to the universe, the function of Vyana prana, we may find patience and trust regarding the situation at hand. Encouraging more time spent in the “Relaxation Response”, as explained by

Herbert Benson, allows for all of the body systems to find again their natural state of equilibrium and health. As regards diet, finding a Sattvic diet which does not cause excess weight gain and allows for focus on Sadhana practices is ideal. Kapha inducing or Rajas stimulating foods are best minimized at this time. For the purposes of elimination, a vegetarian diet and extra fiber is ideal. Hydration is necessary as well, especially because it directly relates to permeable tissues like disks.

3.) Ayurvedic Assessment and Ayurvedic Based Yoga Recommendations

In looking at how to apply Ayurvedic principles to someone who has pain issues from herniated disks, lifestyle issues and limitations on activities are part of the picture. In regards to limitations on activities: when herniated discs are causing acute pain, there is a fear of pain being produced – in order to avoid this, movements are carefully monitored -- there is the need for limitation in the Annamayakosha rather than full easeful expression. Breathing may be shallow so as to stay in control of what the ROM will be -- A lack of connection to the Pranamaya Kosha manifests. Shallow breathing, along with fear, may encourage Vata dosha to go out of balance. The home of Vata dosha is the colon and proper elimination is a sign of balanced Vata, so constipation or irregular elimination often indicate that Vata dosha is imbalanced. Vata imbalance is a trigger which affects the other two doshas. Issues such as weight gain or decreased activity generally, which appear to be Kapha imbalance, may actually stem originally from pain issues and Vata imbalance. It is easy to see how the downward spiral which creates Kapha imbalance can get set into motion : Poor posture, excess weight, and being deconditioned creates an opening for the skeletal structure to go out of balance. From this pain issues increase – due to the pain issues, the motivation to exercise may decrease further, which in turn leads to low energy, potentially sadness or depression, and a generally tamasic lifestyle and perspective.

The extent to which a person is able to rebound from this spiral appears to depend mostly on what the prior attitude and experience of life has been until this cycle began. In the case, for example, of someone who is a chronic substance abuser, and who began drug usage in part to alleviate pain issues, the body not functioning as it should is just one more aspect of a life in chaos -- basic survival is in question. For a person like that, gaining stability in basic life aspects such as housing, finance and general health is a necessary correlate alongside any Yoga Therapy approaches. This is a person who will often be in Vata imbalance – discernment appears almost non-existent and they are constantly experiencing crises. A Yoga Therapy approach for someone at this level introduces the idea of ahimsa (non-violence) and allows the person to begin feeling compassion, both for themselves and for others around them. Three part breathing opens the ability to experience emotions rather than being so afraid of them as to cut off completely. It also balances Vata. A renewed connection to feelings allows for the development of self trust, and trust in the world around oneself.

For someone who has previously felt connected in a meaningful way to the world around them, and to their body, the awareness of the need to move out of the Kapha imbalance spiral is more starkly apparent, and the motivation to do so is also higher. One of the ways to work with Kapha imbalance in this case is with a gentle yoga practice.

- Set goals for activity which are reasonable so that they **can be achieved**.
- Be inspired, let the heart lead. Respect and honor feelings but don't let feelings of hopelessness prevail – find ways to touch and awaken the heart chakra.
- Build positive aspects of Kapha: balanced emotions, trust, and physical strength.

- Cultivate a Yogic lifestyle. Awaken early, practice Sadhana in the mornings as much as possible. Morning practice clears the body of toxins and encourages vital and balanced Pitta – this helps to balance Kapha
- Eat the largest meal at lunchtime when the body will digest it thoroughly and when Agni is at it's highest. This will minimize the build up of Ama which can spread to all the tissues of the body. (Pitta balancing)

From a chakra perspective this area of the body has to do with, again, basic survival instincts. The inability to feel security in movements which affect the lower spine relates to the root chakra – or the ability to provide for the most basic needs such as food, shelter and adequate rest. Fear about basic survival issues may trigger overeating, eating of comfort food as a distraction from the fear and/ or pain, and challenges in having clear discrimination – or lack of connection to the Vijnanamayakosha. It can be hard to feel a connection to wisdom when pain issues feel overwhelming. Those with disc injury often fear that they will be in pain forever, and that it will get worse over time – so the anxiety about what the future holds only creates more tension. In reality “about 80% of people with classic symptoms of herniated disk – sciatica and back spasm – respond within six weeks to bed rest and pain medication. Conservative treatment probably works because it gives the swelling around the nerve root a chance to diminish.” (John Hopkins –2003)

Being predominated by the reaction of fear and lacking a connection to our wisdom body/ accurate perceptions is Vata imbalance. Other aspects of Vata imbalance which could be seen in this condition include lack of regularity in the lifestyle patterns, and lack of regularity in elimination activities, due in part to weakness of nerve impulses to this area. Ways in which to address this are

- JFS with steady inhale and exhale
- Build aspects of regularity in lifestyle: sleep, exercise, eating, work
- Yoni Mudra: placing the hands on the lower abdomen with thumbs touching at navel area and fingertips meeting just above pubic bone. Hand position forms a downward pointing triangle. This mudra draws Vata back to its home in the colon.
- Practices which increase digestive activity such as Agni Sara, and downward energy flow such as squatting are useful in encouraging pranic flow to assist with elimination. (Pitta and Vata balancing)
- Read scripture -- practicing Svadhyaya to increase connection to wisdom body, differentiating between what is real and what is unreal. Surrendering to the divine force, Ishvara Pranidhanam. (Tri-Doshic)

4.) Common Body Reading

Although herniated disks may occur with a variety of postures, it is common that imbalance in the lumbar spine causing disk herniation and stenosis is accompanied by loss of the lumbar curve. “Visualize vertebral leverage like this: Suppose that between each vertebra there is a small perfectly round marble. (There isn't, we're just supposing.) In a functional back, the marble is right in the center. The vertebrae twist and turn smoothly, the edges ascend and descend. But in flexion, the marble is forced toward the rear of the body, so that attempts to extend or straighten the spine are no longer borne by the entire vertebral disk; worse, the altered fulcrum point – the marble – means that the levers formed by the surfaces of the vertebrae are rising and falling with

increased pressure on the posterior edge of the disk. This intense pressure squashes the disk and eventually causes it to begin bulging or extruding material.”

(Egoscue, 1998) In Allison's's case her spine was indeed somewhat flat which correlates with what is common. With a flat spine it can be seen that the tight muscles are:

- Middle Trapezius, Rectus Abdominus

And the weak muscles are:

- Lumbar Erectors, Psoas, Hip Flexors.

Having the spine flatten out in this way may also contribute to Kyphosis in the upper spine and internal rotation in the shoulders. The Coccyx bone may be tucked under rather than in a position which helps counterbalance the weight of the torso coming on to the legs.

5.) Contra-Indicated Yoga Practices -- Activities to Modify or Eliminate

How to modify practices while in a group yoga class is an important aspect in not destabilizing a spine that is out of acute or chronic pain. General rules that will apply to most people with Lumbar disk herniation are:

- Elimination of forward bends initially – cautiously re-introducing.
- No rounded back – always lengthening out with a flat back, and especially, bending the knees well when coming up from standing forward bends.
- Eliminate twisting to the side away from the disk herniation as this could increase pain and imbalance, but gentle twisting towards the herniation is good as long as pain does not occur after the practice.
- Emphasize backbends but with the idea of a long spine -- shifting pubic bone forward.
- No sudden movements or pushing beyond the edge as may occur in inverted balancing poses, extreme backbends, or twist variations. Focus on good alignment and finding the balance between Shtira and Sukkha (stable in the base, comfortable and open in the torso and chest) rather than on the external appearance of the pose.

6.) General Recommendations for the Condition

A.) Therapeutic/ Free of Pain

If the condition is acute, bed rest and even muscle relaxants may be a necessary first step in allowing muscles that are contracting with a death grip to begin releasing. When the body fears that pain may be about to happen, it reacts by contracting the muscles around the area of instability – this may be felt as tightness or in the extreme, muscle spasm. “Recent studies have shown that people with episodes of severe back pain who seek treatment from doctors, physical therapists, or chiropractors have about the same recovery rates as those who do not ...The do-nothing group “takes it easy” and through trial and error learns how to avoid movement that causes pain. In short, their self treatment is to restrict motion” (Egoscue, 1998) So it can be seen that the need to begin by eliminating activity is primary, because it is the inflammation that is causing the pain. Decrease muscle tension specifically and stress generally, and focus on balancing Vata through full diaphragmatic breathing and practicing Nadi Suddhi, alternate nostril breath.

Relaxation exercises such as Yoga Nidra and Meditation allow the body to engage in the healing process.

B.) Stabilize the Situation

Once the inflammation is diminished the real work of building strength to stay pain free can begin. A place to start is by encouraging a healthy Lumbar curve. Strengthening adductors, stretching hamstrings, and strengthening hip flexors is a way to encourage this while not going directly to the back muscles. Once the back is ready, strengthening the muscles around the lower back to increase the Lumbar curve is the next step. Simple backbending poses which can be done with control and even visualization are the best. The most basic place to begin is with warm –ups: feeling the arch in Cow pose and continuing on with practicing Sunbird pose dynamically, moving in and out of it. Asanas include Cobra, Salabhasana Variations, and Nauasana, Downward Facing Boat. All of these strengthen the spinal erectors as well as Gluteus Maximus, which contributes greatly to a balanced and healthy lumbar curve. The Sacroiliac stabilizing exercise would also be a general recommendation for stabilizing once the acute pain has diminished. (See appendix for description) Maintain Vata balancing practices. Decrease choices which could encourage Kapha imbalance.

C.) Maintenance

Continue to keep the low back muscles strong through exercises which engage the spinal extensors and gluteals. Asanas which also build core strength such as Setu Bandhasana, Urdhva Prasarita and Paripurna Nauasana (Upward Facing Boat) are good to add in at this time. Maintain a regular practice as required to keep strength. Be aware of lifestyle activities and daily activities in a way which encourages balanced posture – on every level. Steady and Comfortable. Monitor stress levels in the daily routine. Practice Pranayama and Meditation regularly. Apply the teachings of the Yoga Sutras in order to stay in the Self.

7.) Questions and Answers from Yogaforums.com

10-09-2005

Q: I have a client who has a **herniated disk** L4, L5 and spinal stenosis. The stenosis is in the cervical area. The doctors want him to have surgery and he doesn't want to. The doctors do not want him doing any yoga. He will be seeing a neurosurgeon next week. I have been working on him with poses for the **herniated disk** such as Triangle, Parsvakonasana and backbends. My questions are:

1. What do you suggest for the cervical stenosis?
2. Is it necessary to have surgery since it is in the cervical region?
3. Can Yoga help open up the cervical vertebrae? If so, what poses would be good for him?
4. I have read something about spinal stenosis but all lumbar stenosis and that it could be congenital or due to aging. Any other reasons this happens that you know of on the cervical region?

My client is in his mid 50's, very weak and tight ALL OVER his body. He is a M.D. He suspected from his symptoms that he has a **herniated disk**. He was surprised to hear

about the cervical spinal stenosis. I have ordered that book on Low Back Pain that you had suggested. It sounds like it may not talk about the upper spine. I would like to have one book to answer all my questions that come up. Like one stop shopping! Is this possible??? Thanks, S

A: 1) Arthritis diet for 10 days. For any bone spurs – arthritis, stenosis, and pitta imbalances in general.
 2) Depends on many factors that I do not comprehend. When surgery is needed, it works fine for this condition. Recommend you see Surgery and Its Alternatives by Drs. McLanahan (brother and sister). She is alternative physician at Yogaville Ashram in VA; he a surgeon in Seattle. It is frank about the options and their effectiveness. An Excellent reference book to keep on hand, inexpensive for such a huge work, now in paperback.
 3) For cervical decompression and in general all poses you give must be done to decompress, elongate the spinal column. Moving pelvis away from waist and moving head away from shoulders are instructions to have in all asanas. Rolling bridge, Viparita Karani if he is strong enough to hold and neck relaxed enough during practice. Spinal twists of all sorts can decompress spine when done with mild backbend motions within the asana.
 4) No reasoning that I can understand. Medical literature is more talking about symptoms rather than what caused it. I have a physician client who also has it mid 40s.
 5) Then read Surgery and its Alternatives, covers all topics that are related to potential surgery and how to avoid it.

08-05-2004

Q: I had a sleepless night and my mind is still tossing and turning with worries. I have a new private client more like a patient, male, 48. His entire spine is stiff. He is a software developer sitting all day for hours. The only back injury he ever received was over 10 years ago in a golf swing in the upper right shoulder between shoulder blade and spine. So far I have been using solely your joint-freeing movements for about a month - once a week. Through his current doctor, I had asked for an x-ray or MRI. Unfortunately, the focus of the MRI was only on the cerebral spine but nevertheless a wake-up call for him as follows:

spondylosis
 stenosis C4 to C7
 midline herniation C4 and C5
herniated disk C5 and C6
 Protrusion C6 and C7

Standing barefoot, he goes into discomfort after a few minutes. The mild pain goes over his entire back and down in the back over both legs to his heels. Elevating his heels while standing has helped. I am concerned that this pain does come from his spine, true, but not only from his neck. I am concerned that there is more happening down and over the rest of his spine, which I/we are not aware of.

Considering the diagnosis of his cervical spine alone has me so very deeply concerned if I am the right person for him or if he should go to a PT. Please advise. Thank you so very much. R

A: Is your sleeplessness over him or ? If you are thinking of him then you are the right person to work with him. Concern for a client is the major motivation for being a yoga

therapist. loss of concern for yourself is high motivation. This needs to be balanced with skill, however. If the medical people feel it is warranted he will be referred to PT. That decision he should also make too. If he finds your recommendations beneficial then of course he is the ultimate authority on which to base his physical well being. Ask him if he feels confident in your capacity to help.

I think you should continue with JFS regularly plus also add the isolation series too. That is quite effective for freeing up the entire vertebral column. I don't know if you have learned this from me or not but even if you did not get personal instruction just do the series yourself in its entirety. It is to be taught same as JFS doing all motions regardless of what is the issue. Once you have learned it yourself then teach it to him. feel free to ask more as you proceed. Contraindicated practices would be those that are weight bearing on the neck and extreme cervical extension as in camel. keep his neck in neutral alignment as you work. also can add neck strengthening practices see page 180 of my book. For his pain also give plenty of pranayama and other practices that you find lead into a state of meditation. Of course like all practices you cannot effectively give what you don't do yourself. So if you have grounded practice then you can share that if not then give what relaxation practices you have clearly experienced to work for yourself.

12-19-2005

Q: A student has a herniated disc and **sciatica** symptoms along with occasional numbness. It's been a year since her pain started. She is taking anti inflammatories and that seems to help. I've met with her 4 times so far and done mostly breathing practices. She came to me through the gym for the yoga/pilates perspective on her issue. She has also met with a PT, exercise trainer, massage therapist and a few different doctors. She is getting a lot of conflicting information and, I feel, needs some way to bring it all together.

One thing I hear her say is that "they gave me the wrong exercises and I think they made it worse" or "it seemed to be getting better and then, they pressed too hard and made it worse" this makes me a little nervous about our working together. My understanding about nerve issues is that this is their nature (little better, little worse little better) Hopefully with clear guidance and continual effort at peeling the layers of veils away we'll be able to help guide her through this challenge.

A: most of the signs you are pointing to relate to vata imbalances. the need is there for clear communication and for her to increase sensitivity to what feels good and what doesn't. In regards to therapist they need to ask her Q about these topics so she gives more feedback. it is easy in this situation for a therapist to give too much, push to hard, or go in the wrong direction. feedback is essential for situations where there is vata vikruti (symptoms) in the clients. One must move more slowly and give repetitions with gentle effort supported by plenty of client feedback. This makes the client feel cared for, that caution is applied, then vata can relax and the prana begins to arise. When this happens healing takes unpredictable directions; always for the best. So you must be a gentle friend that gradually is seen by client as one who protects them and reinforces their own cautions and innate sense of where to go and where not to go. it is basically helping the client to find YS II, 46-47. From this duality such

as pain and pleasure are put into proper perspective and healing will naturally arise. blessings. mukunda

04-24-2005, 11:46 AM

Q: I had a herniated disc seven months ago. I went to physical therapy for a few months. The pain didn't go away as time went on, so due to my anxiety, I would never sit. I'd just sit stand all day or lay down. I haven't even bent my back. So I've been standing for three months or so now.

The pain in my leg is gone unless I jump around. It will come back for a short amount of time, but then go away. According to my doctor, my disc should be healed. For the first time, I've been sitting down. I tried to sit on the floor today, my lower legs began to hurt. I don't know what to do.

What do you recommend? Lee

A: First of all I would recommend you look at my Q & A website www.yogaforums.com for more advice that was given previously. You can search there for herniated disc and also for **sciatica** symptoms. The main recommendation is to hydrate. As the disc is made of 80% water one with this condition is often chronically dehydrated. Just filling up your tank regularly, 1-2 quarts per day minimum only water, can make a huge difference. In addition there are mild backbending poses like cobra and locust using only your hip muscles not arms while doing them that can help send nutrients to the disc. Individually tailored Structural Yoga Therapy can help too if you are near me or any of my graduates. namaste Mukunda

Q: I have another question. I'm confused totally now. Everybody tells me different things. Is it ok to bend your back forward? Some tell me it's ok to do that, and some tell me don't ever do that at all. My leg pain has been gone. I did a short bend, and now my foot is hurting again slightly. I'm not sure if that's cause of my disc or cause my back muscles have been injured.

Lee

A: The general teachings in therapeutic yoga is to extend the spine before and during asana. That means in locust to move the legs away from the pelvis; in cobra to pull the rib cage away from pelvis. In both instances one is decompressing the lumbar spine and hopefully taking pressure off the nerve roots. Those with herniated disc and sciatic symptoms are encouraged not to bend forwards in general.

There are rare instances where forward bend is therapeutic but to determine who is a candidate a personalized assessment of their range of motion and muscle strength will reveal what is beneficial and what is contraindicated. My experience is that those who recommend forward bending have not had the symptoms themselves and usually are told what to do from a misinformed teacher who they have faith in. Most yoga teachers do not understand anatomy and beyond that is required kinesiology in order to give personal Yoga Therapy. They are not taught therapeutics in teacher training only what is recommended if you suffer from specific conditions. This type of instruction is only

generalized not therapeutic which must be adapted to the individual's uniqueness.

I would suggest to you that having done a short forward bend, the reason you are in pain is because all forward bends are contraindicated for you. You are too acute to be doing yoga classes but need personalized attention from someone who is more educated in Yoga Therapeutics. namaste mukunda

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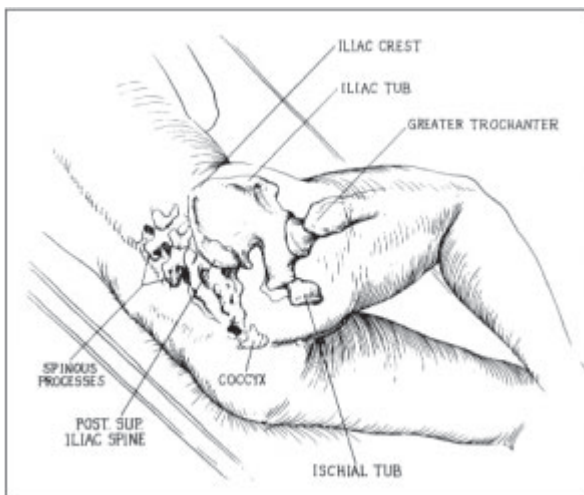
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9.) Appendix

Sacroiliac Stabilization Exercise

The sacroiliac joint has a small amount of motion – adduction, abduction, flexion and extension. Without these motions or moving into extension (downward) during hip flexion (lifting your knees or sitting), your lower back and hips can be quite uncomfortable. The solution is to mobilize the sacroiliac properly. The following exercise balances the joint so that as the hip goes into flexion, the psoas will contract with sufficient force to overcome its antagonist, the gluteus maximus, and the joint will flex (move upward). The movement needs to be done regularly for those who have frequent lower back discomfort until the correct pattern of motion is established. This should be done before any other exercises or asanas for those with reoccurring lower back, sacroiliac or hip strains.

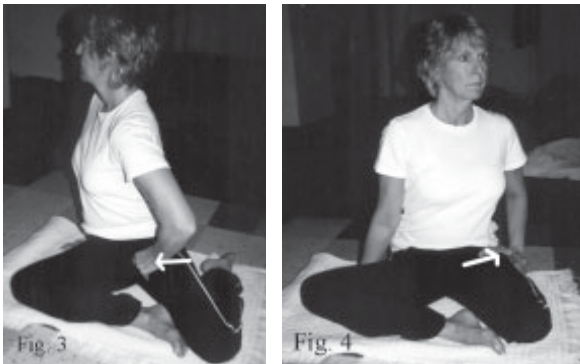


Sacroiliac Stabilization Exercise Instructions



Sit on the floor with your knees bent and feet to the left side, so that the left foot points back beside the hip and right foot is adjacent to the left knee. If you are stiff and unable to sit comfortably erect, then place sufficient padding under your pelvis to make it comfortable to be erect and move. Avoid leaning so far to one side that your hand needs to support you on the floor. Be sure the inner knee is comfortable. This should not be done with the knee in pain. The first movement is to pelvic tilt back and forth from the iliac crest (top of pelvis) exhaling as you contract your belly and round your lower back (**Fig. 1**). Then arch your lower back forward contracting the psoas as you inhale (**Fig. 2**). Repeat 12 times, or until you feel the motion becoming smooth, whichever takes longer. You are looking for a feeling of release (Kriya) in the tissue, energy, or emotion that will react to the motions.

The second part of the series is to place your hand on the top of the left thigh near the groin and use it to move into internal hip rotation (**Fig. 3**) and then external hip rotation (**Fig.4**). During internal hip rotation your pelvis will lift from the floor, during external rotation your ischial tuberosity (sitz bone) will touch the floor. Inhale as you lift your hips moving into internal hip rotation. Exhale as you lower the hip coming into external hip rotation. Continue for 12 times, then reverse your legs and repeat.



Once completed, stand and do several “marching steps” bringing the knee waist high, then recheck your sacroiliac joint to see if this exercise has effected a change, a movement toward balance.

10.) Inga Benson Biography

Inga Ishwari Benson, MA, DTR, RYT, has been a yoga teacher since 1999, is registered with Yoga Alliance and has done basic, intermediate and pre-natal training with Integral Yoga Institute. Inga is a Teacher Trainer with Integral Yoga Institute for Basic, Children's and Pre-natal Yoga Teacher Training. She is also a Registered Dance Therapist and works at Woodhull Medical Center as a member of the Creative Arts Therapy Department where she is able to apply the modalities of dance therapy, yoga and verbal counseling in her work with substance abuse patients. She has experience using yoga to work with a wide range of populations including children, seniors and pre-natal and teaches both privately and in group settings in New York City.