Hamstring Injury

Structural Yoga Therapy Course

New York, June 29th 2008

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1 - Case study

A - Initial intake

Shannon is 14 years old. Shannon is of very thin frame, pale skin and is soft spoken. She has been a dance student of mine for the last four years. Shannon has been dancing since the age of four. Her love for dance is apparent, in her own words..."dance is what makes me happy..." Shannon is the oldest of four sisters ages 12, 9 and 3, all of them who are dancers as well.

Shannon is very active; her routine includes about 10 hours of weekly dance classes including Ballet, Tap, Jazz and Modern. This time does not include rehearsals for specific shows which could add four to six hours of extra rehearsals a week during a three month period twice a year. Shannon is seriously considering a career in the field of dance. Both her parents are very supportive. Shannon is highly motivated; she also enjoys running and playing piano. Shannon came to the first session accompany by her mother.

Her injury dates back to October of 2007. During a dance rehearsal, she was asked to slide down from a standing position into a full "frontal split", with her left leg forward and foot in plantar flexion. During this motion she heard a very loud "pop" and felt a wave of sharp pain running through the back of her left leg, at that moment she falls on the floor. Shannon expresses that she felt very scared of the fact that could not feel her legs. Shannon was immediately taken to the hospital in excruciating pain and after medical evaluation she was diagnosed with a torn medial hamstring at the origin point. Her mother explained that the x-rays also showed a small chip of pelvic bone detached from her pelvis. At her orthopedic evaluation Shannon was told that she would be walking on crutches from four to six weeks and that her injury may require surgery. Shannon tells this story in detail; she adds gestures and her body language changes. Shannon was concerned that she might not be able to perform in the next show. Shannon says she cried at the thought of not being able to perform again.

Shannon was prescribed fifteen sessions of physical therapy. Shannon describes how painful it was to be seated for an extended period of time; she had to bring cushions and ice packs to sit through her school classes. Shannon was released from physical therapy in February of 2008 and did not require surgery to correct her injury.

At the end of the intake she states that she is still in pain. Her pain level fluctuates from level three when standing to level five or six when moving fast, jumping or running. Also she expresses that she suffers from very painful shin splints every time she has to run for five minutes or more during her gym class at her high school.

B - Physical assessment

First session 03/26/08

Body reading standing position

Shannon's left shoulder is more elevated. Left foot is slightly turned outwards with a flatter arch than the right. I noticed that Shannon has a slight twist to the left side with right side turning inwards. Left gluteus on left side looks bigger in mass than the right side. She seems to be holding tension in the chest area.

Spinal lateral curve

Shannon's spine shows a slight left thoracic curve. Degree of curvature does not seem to be significant enough to be relevant

Sacroiliac test

03/26/08

As I was alternating sides, I observed the SI joint giving unstable readings. I tested four times and all resulted in different results on both sides.

04/12/08 1-left side up -right side up 2-left side down-right side up 3-left down-right down 4-left down -right down

*Leg length test*Length even

Range of Motion Assessments							
Joint Action	ROM	1st Date	1st Date	2nd Date	2nd Date	3rd Date	3rd Date
	Norm°	Left	Right	Left	Right	Left	Right
Flexion (Straight-Leg Raise)	90°	77	73	87	73	91	96

Muscle Testing Assessments

Joint Action	1st Date	1st Date	2nd Date	2nd Date	3rd Date	3rd Date
	Left, 1-5	Right, 1-5	Left, 1-5	Right, 1-5	Left, 1-5	Right, 1-5
ANKLE						
Dorsiflexion	4	5	5	5	5	5
Plantarflexion	4	4	5	5	5	5
Eversion	4	4	5	5	5	5
Inversion	3	4	5	5	5	5
KNEE						
Extension	3.5	1.5	4	4	4.5	4
Flexion	2	3.5	3	3.5	4	4
HIP						
Hip extensors (prone)	1.5	3	2	3	3.5	4
Trunk Flexion (Supine)						
Hip Flexors - Bent Knee (Supine)	2	2	3.5	3.5		
Iliopsoas Isolation (Supine)						
Sartorius Isolation (Supine)	2.5	2.5	2.5	4	4.5	5
Abduction (Side Lying)	1.5	2.5	3.5	4	3.5	4
Adduction (Side Lying)	2	3.5	3	4	4	5
Gluteus Maximus Isolation (Prone)	3	2	3	2	3.5	4
External Rotation (side lying)	2	3	3	3.5	4	4
Internal Rotation (side lying)	4	4	4	4	4	4

Note: After first muscle testing results I observed that overall Shannon has been weakened by her injury, considering the fact that she is an athlete.

C - Summary of findings

I decided to test ROM in hip Flexion with straight knee to see if there was tightness in the hamstrings. Both hamstrings felt tight and hips flexors (after MT) seemed weak and with low stamina. Seems that left Gluteous Maximus is compensating for the injury in extension not only tested stronger in isolation but also looked bigger in mass (from body reading). Hamstrings on both sides, adductors and abductors tested weak in MT; after isolation Gluteus minimus on injured leg tested weak, I have noticed that Shannon has a slight twist to the left side with right side turning inwards(from body reading).

While Muscle testing Shannon in left knee flexion and in the ROM on left hip flexion, her breathing became slightly faster she began blinking rapidly .I asked Shannon if she was experiencing pain, she did not. I encouraged her to focus on deepening the awareness of breath, and feeling the inhale from my hand (I was holding the back of the injured knee) to her nose ¹.

Strengthen	Stretch	Release
Hamstrings	Quadriceps	Hamstrings
Hip flexors	Hamstrings	
Sartorious		
Gluteous Maximus/minimus		
Hip abductors/adductors		

D - Recommendations

First session March 29th

A- I introduced Shannon to the JFS ² exercises 1-9, both to enhance sensitivity and tone/strength/lubricate the whole lower body. We focused on the breath and in creating a flow of movement that was both soft and continue to balance Vata. I felt that Shannon was moving her awareness gently from Kosha 1 to kosha 2. At the end of the session I guided both Shannon and her mother through Savasana. Shannon began experiencing a slight trembling on her legs and rapid eye motion; I assumed she was experiencing a krya³

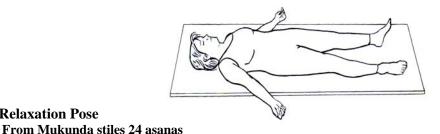
¹ Stress relieving technique demonstrated by Mukunda session NYC 10/14/07.

² Joint Freeing Series from Structural Yoga Therapy text , Mukunda Stiles (see reference section 8)

³ Krya: Physical Manifestation of cleansing/release in the subtle body. A Krya might be recognized REM (rapid eye movement), shaking or trembling of limbs

-Savasana:

After completion of the JFS, I recommended that Shannon remain in this pose 10 minutes or more, if short in time a minimum of 5 minutes.



C-More water intake

Relaxation Pose

Special note: I noticed Shannon was very thirsty. I observed Shannon drinking "Gatorade" constantly during the session. I recommended Shannon to increase her daily water intake. I recommended that Shannon includes 16oz of water intake in the morning.

Second session: Saturday April 4 Recommendations

- A- I observed Shannon doing the JFS 1-9. I added exercise 4 without the use of the arms for more sensitivity in the hip flexors. I guided Shannon through Ujjaye breath, both to lower Vata and to bring more discernment about what is needed.
- B- Added a variation of Shalavasana to her Sadhana. While in the pose the knee bends with the sole of the foot facing up and the ankle in flexion (see figure 1 below). This variation strengthens the upper part of the hamstrings. I recommended Shannon to work on holding the pose from 3 breaths up to 6 towards the end of the week.

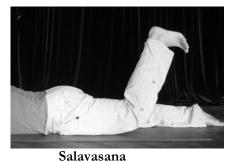


Figure 1

C-I recommended Sea water bath three times a week, for recovery of minerals

1 cup of sea salt-1 cup of Epson Salt 1 cup of baking soda Warm water

<u>Third session</u> Saturday April 12

Recommendations

a- I asked Shannon to ask herself when tired...." is this plain physical weariness or stress?,"What am I feeling stressed out about?" I suggested that Shannon observe which points of her body where tired, felt tense or painful. I recommended that Shannon do the JFS right after asking these questions. After concluding with the JFS, I asked Shannon to pause and ask herself these questions again. During this pause I asked Shannon to feel if there was a difference in the pain level/location of pain and any other sensations (encouraging Swadhyaya and self exploration)⁴. I recommended that Shannon kept a journal to write down findings and thoughts that may emerge.

From self study
Comes communion
With one's
Chosen personal deity

b- After results from the second muscle test I encouraged Shannon to continue with the recommendations from our last session. I added to Shannon's Sadhana a dynamic form of vrksasana, to strengthen both left sartorious and external rotators after muscle test revealed weakness. When in tree pose, I guided Shannon towards hip adduction/abduction and hip flexion. We began by bringing the knee in front of the body and upwards towards chest on the exhale (see photo 3 below), she said this was challenging but there was no pain or strain, Shannon giggled when loosing her balance and showed signs of releasing some tension, her breath became deeper and her face seemed more relaxed. Then told Shannon to inhale the knee to the side (see photo 2 below), she felt sensation on the outer rotators. During the exercise I encouraged Shannon to relax the effort and allow the feeling of toning/ strengthening (Kapha). Shannon loved this exercise and said that her left leg felt much lighter, she started skipping around the studio.



Balancing Tree- Vrksaasana Variation figure 2



figure 3

⁴ Yoga Sutras Chapter II sutra 44 (as interpreted by Mukunda Stiles)

4th Session Recommendations

I guided Shannon through Pranayama for pain technique #35

I ask Shannon to rest on the floor face up, I encourage her to release her body weight to the ground and take tree full breaths. I showed Shannon Yoni Mudra ⁶ I asked her to place her hands in the *Mudra* position on her abdomen just on top of her belly bottom. I asked Shannon to be here, to breathe into this space. After a few moments Shannon began having a *Krya*, her left leg began a small trembling followed by both her hands after the leg movements stopped. After the Krya dissipated, I suggested Shannon to move her hands to where there was pain, she placed her hands on top of her left thigh, and I told her to breath into that area making the pain smaller and smaller until it disappears. Shannon remained in this position for a while. After a few more moments, Shannon's face began to soften. When Shannon expressed that the pain had dissipated, I guided Shannon to bring her hands back to her belly and bring the breath towards this space, to gather the sensations of her body to this spot. I recommended that Shannon apply this technique when in pain and then write down her experience in her journal.

Special note: I decided to apply this technique to both increase Shannon's Prana and stop it from moving, to bring "Vata home".

April 27th fifth session

A-I recommended that Shannon continue with her Sadhana as reviewed from the last session. I suggested that we add a *Samkalpa* ⁷ or resolve to her practice, from Sutra book I, 23

The end of spiritual practice

Is only attained

By placing oneself

In the Lord

After talking to Shannon about this sutra and the connection to the divine, she commented that her intention with her practice is to end her pain. I asked Shannon to extend her resolve to all the beings everywhere, and then begin her daily practice.

B-I added to Shannon's Sadhana the sun salutations series from *Mukunda Stiles SYT book*. For both stamina (Kapha) and sensitivity (Vata) I ask Shannon to pause for three breaths during each pose and focus her awareness in the feeling of toning. We began by doing the sequence together once; Shannon learned the sequence with ease and continued on her own. I ask Shannon if there was pain any where during the series, she responded no but she felt tightness when going down on the knee with the left leg. I asked Shannon to keep the knee right over the ankle making a 90 degree angle in relationship to the floor, Shannon felt more comfortable after this adjustment. Then I began to assist Shannon verbally towards the awareness of where the toning or stretching was felt during the different poses (to increase Pita and discernment). Shannon began to show signs of increased sensitivity (balanced Vata), she was excited to feel her injured hamstring working without pain. Her body began to radiate heat – *Tapas* (sign of increased Pita)

The thumbs and index fingers of both hands connect in the shape of downwards facing triangle. "*Tara's home is Yoni Mudra, and her home is the heart*" (Mukunda NYC session, 10/15/07)

 $^{^{\}rm 5}$ From Mukunda's Yoga body works session (SYTT New York $\,$ Jan session 2008)

⁶ Mudra: energy seal

⁷ Samkalpa: Intention, resolve. Sometimes listed in Yogic literature as one of the functions of the inner instrument or mind.

After four repetitions of the sequence, I asked Shannon to settle in Savasana for a few moments. Then I asked Shannon to place her hands in Yoni Mudra on her belly and to take a few breaths in that space. Then I asked Shannon if she was feeling any sensations or emotion in other parts of her body, she says yes. Then I asked her to move the Mudra to that place. Shannon moves her hands to her left shoulder. I told Shannon to bring the Mudra back to the lower belly area carrying that sensation with her. She did so after a few minutes. After a few breaths I asked Shannon if there was more sensation anywhere, she moves her hands in the Mudra behind her lower back. She remains there for a few moments then brings her hands back to her belly. This is part of Mukunda's *Tantra lesson #2* in which we follow the currents of sensations (Prana) and bring them back to their source. This technique will help Shannon gain more sensitivity to where she is going in her life's journey, and remain present in her body during her dance training with compassion and love.

E - Results of recommendations

April 4th: second session Shannon expressed that since her last session; she is feeling less pain at night and getting better quality of sleep. Shannon is able to sit at school with less pain and without her pillow.

April 11th: third session

Shannon begins the session by saying that she feels more energized, and her pain level has decreased to a 2 8 at the back of the leg during and after Ballet dance classes. She adds that she feels pain on the top of her left thigh at the end of the day; especially after more than one dance class the same day or a lot of walking. During her modern dance technique classes the pain level increases when changing levels⁹, and also when landing from jumps on the left leg. I ask Shannon where the pain was and to point at it with one finger. She points to a spot 3/4 way between the hamstrings origin at the pelvis and the insertion point behind her left knee. I ask Shannon to point at the point of pain in the front of the same leg; I noticed that is the same spot on a vertical line up from the back of the leg. I asked Shannon if she felt pain on both front and back of the leg at the same time, she responds no. I suspect that the pain was moving (Vata); I decided to ask Shannon several questions about the pain to bring up Pita/discernment.

G-Pain continues after the landing? S-No it stops right after
G-it dissipates or stops suddenly?
S-it dissipates
G-would you give the pain a color?
S-black
G-Is it hot or cold or both?
S-Hot
G-Does it have texture?
S-ruff around the edges
G-would you give pain a quality?
S-Sharp

At this point Shannon fixed her eyes on one point (sign of getting insight/Vata balancing) and she adds that she feels more pain when she is "stressed out" or tired. I asked Shannon if she was stressed right now, she took about a 30 second pause, and then she said no. I asked if she felt pain right know to which she said no.

Saturday April 18th fourth session

Shannon said that the pain on top of her left thigh is now "coming and going", but feels some tightness on the outer hip (actually she points at her left IT band) after Ballet class. Shannon says smiling that her pain level when landing jumps on

⁸ use to be 3-6 from intake details in page 2

⁹ Dance motion when moving rapidly from a standing position to the floor and vice versa, it requires both, deep knee and hip flexion

the left leg has decreased to a 1 or 2. Shannon seems confident when she explains how she feels stronger during her dance classes, and is able to hold her leg "up" without pain during ballet or Jazz.

Shannon expresses that she had an important test at school Monday 4/14 and felt more pain than usual; she said that she had difficulty sleeping the night before. I asked Shannon to describe the pain, she described it as "pins and needles" on her left hamstring, I asked Shannon if the pain was steady or constant she responded constant while she was seating at school for the test. When coming home from school, Shannon conveys that she did her Sadhana/recommendations from last session, and pain decreased to a 1 or 2(from a 6 at school), she realized the stress and pressure of the test increased her pain level. During this conversation Shannon looked relaxed and kept her eyes on mine, she showed deep insight and maturity.

April 27th, fifth session

Shannon begins the session by saying that she discovered her pain level shifts depending on her mood.....she opens her journal and after reading a bit to herself she says, in her own words".... I feel more pain if I am sad and less pain when I am happy...." Shannon noticed that her Pain level during a midterm at school went up to 7 or 8 on her left leg, even though she did not have any dance classes the day before. I asked if that was the only occasion during the week she experienced pain, she responds yes. She continues with her daily yoga practice when she comes back home from school and expresses with excitement that her pain level is down to 1 or even 0 during dance classes. Shannon says that she is looking forward to next week in which she has no tests and she will be able to observe the pain's pattern and level.

Shannon continues expressing how much she really enjoys the mineral baths, and asked me if she could take one everyday. Shannon continues by saying that she enjoys the practice of *Yoni Mudra*. I begin sharing with her some of my own experience with the practice. I feel we are moving to a *Kapha* stage in our relationship, my intuition says I can start sharing with Shannon some of my own experiences. Shannon also shares that her grandfather fell and hurt his back. Shannon felt she wanted to share and do the JFS with him, as she tells this story her *sattvic* nature arises and her face lights up. I can feel her energy field getting larger and reaching towards me. I notice that she is very connected to her grandfather. Shannon tells me that her and her sisters do the JFS together and sometimes her Dad joins them, her mother who is in the room with us, says the she really enjoys it and energizes her.

May 13th, sixth session

I've meet Shannon before her ballet class. Two weeks had past since our last session and Shannon begins by saying that her pain level has diminished considerably. Her voice sounds clear, strong and her body radiates self assurance. She opens her journal and with details reads her findings, she shows increased discernment her gaze is deep, her facial expressions very relaxed (signs of sattvic disposition). Shannon shows me three dance movements she discovered affect her pain level (she shows them in great detail sign of insights arising), I notice that they all involve deep contraction of the affected Hamstrings. We worked at modifying those movements to eliminate pain; I notice at that moment that Shannon's capacity for grounded/expansive movement (Kapha balanced) has increased as well. I asked Shannon about her Sadhana and she comments that it has become a habit for her in the morning to do the Sun Salutations and tree pose, her favorite. She comments that the practice of **Yoni Mudra** in her own words...."helps her deal with headaches".

May 31st session, seventh session

Shannon begins by opening her diary and saying that she only had a level 3 pain one day since I have last seen her. She expresses that it was due to three consecutive dance classes on that day. I asked if she felt pain in the front of the leg to which she answered that there was no more pain radiating to the front. She also comments how she is regaining her flexibility and stamina, she clarifies that she feels energized after her daily Sadhana. I begin the re assessment (see table under third reading)

Shannon's mother mentions that she would like me to continue to see Shannon on regular bases, after completion of my case study paper and graduation.

E-mail correspondence from Shannon's Mother 6/08/08

Dear Gabriel, I know I have thanked you verbally for helping Shannon, but I wanted to write and tell you in more detail how you have helped Shannon recover from her injury. Immediately after her injury back in October she of course was seen by an orthopedic doctor. She continued check-ups with the doctor and also a prescribed fifteen visits with a physical therapist. By December, she was finished with the doctor and by January she had completed her physical therapy visits. While both the doctor and therapist were great, Shannon and I both wished for more continued guidance. She was still unsure of what she was capable of doing in dance. She felt lost and thought "now what?" It was at this point that you stepped in and we felt our prayers were answered. Through your yoga instruction, Shannon has emerged from her injury stronger than before. You have taught her strength, patience, calmness, and a way to focus that she never knew before now. You have given her confidence to grow as a dancer and inner peace to carry with her through life. Although we all wish Shannon had never been injured, Shannon looks at the outcome and lessons learned because of her injury as a 'gift'. You and all the yoga disciplines that you have taught Shannon are a big part of that 'gift'. Thank you! Arlene

2 A- Name and description of the condition

Shannon's condition is sometimes called a **hamstring strain** or **pulled hamstring** when a tear in one or more of the hamstrings muscles has occurred. Strictly speaking there are three hamstring muscles (**Semitendinosus**, **Semimembranosus** and **Biceps femoris**) which are known as the hamstring muscle group. These muscles all originate from the ischial tuberosity of the pelvis (see figure 1). Biceps femoris, in addition, has a second portion, known as the small head that originates from the lower outer portion of the femur bone itself.



Injury to the biceps femoris

All of these muscles travel across the knee joint - semitendinosus and semimembranosus insert into the medial (inner) aspect of the tibia while the biceps femoris inserts at the head of the fibula bone on the outside of the lower leg. For a young dancer like Shannon with a grade 2 pull ¹⁰ the primal objective is to understand how the hamstrings work and give her vital clues as how injuries can be prevented. From Yoga Sutras II 16:

The suffering from pain that has

Not yet arisen

Is avoidable

^{. .}

¹⁰ Strains are graded 1, 2 or 3 depending on severity. Grade 1 consists of minor tears within the muscle. A grade 2 is a partial tear in the muscle and grade 3 is a severe or complete rupture of the muscle.

B – Gross and subtle body common symptoms

-Gross body: A sudden sharp pain at the back of the leg during exercise-most probably during sprinting or high velocity movement

-Subtle Body: Pitta up, in consequence Vata displaced through shock, trauma or fear arises

-Hamstring muscles going into spasm-will be associated with pain on stretch and contraction.

GB-Swelling /heat and bruising.

SB- Kapha elevated /Pita elevated: feelings of frustration, weightiness as if carrying a burden or anger at the situation might arise

GB-If the rupture is severe a gap in the muscle may be felt.

SB-This will displace Prana out of home diminishing sensitivity in Annamaya or kosha 1, as Prana diminishes it begins to affect the other koshas:

Pranamaya Kosha or Kosha 2: energy blocks, diminished intuition

Manomaya Kosha or Kosha 3: Negative thoughts, fear arising

Vijnanamaya Kosha or Kosha 4: Misperception, lack of seeing things as they really are/feelings of loosing ground

Anandamaya kosha or kosha 5: Sadness, feelings of despair

"Each of the koshas can be seen as a defense mechanism that hides the true self" 11

C - Related challenges -

Strains are graded 1, 2 or 3 depending on severity

Grade 1:

May have tightness in the posterior thigh.

Probably able to walk normally however will be aware of some discomfort

Minimal swelling.

Lying on front and trying to bend the knee against resistance probably won't produce much pain.

Grade 2:

Gait will be affected-limp may be present.

May be associated with occasional sudden twinges of pain during activity.

May notice swelling.

Pressure increases pain.

¹¹ Mukunda Stiles Ayurvedic Yoga Therapy

11

Flexing the knee against resistance causes pain. Might be unable to fully straighten the knee.

Grade 3:

Walking severely affected- may need walking aids such as crutches Severe pain- particularly during activity such as knee flexion. Noticeable swelling visible immediately.

3 - Ayurvedic assessment

Vata Balancing recommendations for Shannon

Joint freeing series: Slow rhythmical motions focusing on a steady breath flow

Locust (modification): This variation strengthens the upper part of the hamstring

<u>Balancing poses</u>: In Shannon's case I used **Vrksaasana** to add the awareness of uprightness to Shannon's body. Before coming to our sessions she was just walking without crutches and her Pranic body in particular Adhya Prana was out of home due to trauma. Tree pose brought Shannon to experience again the vertical plain and also a better flow of Prana through her upper body.

<u>Sun Salutation (slow)</u>: at first we worked on the motion then add a soft Ujjaye breath, Shannon's inhale was narrow and high on her chest. This brought gentle awareness of the habitual breathing pattern and helped Shannon to deepen the journey of breath.

<u>Savasana</u>: I felt it was important to address the impact of Shannon's traumatic experience with her injury in the subtle body, with practices like Savasana and Yoga Nidra physical trauma could be eventually cleared.

Increase of water intake: Balance Vata by drinking more water, especially during the dry season

Mineral baths: It replenishes minerals, and the healing properties of sea water

Yoni Mudra: Brings the Pranas towards their home

Pranayama for Pain: helps Shannon find her Sankalpa, a way to regain sensitivity and end pain

Pitta balancing recommendations:

Moderate Sun Salutations: picking up the rhythm of the series to add muscle stamina and increasing awareness of toning

Locust (modification dynamic): tones the upper region of the hamstrings

Sunbird (modification dynamic): It tones the Gluteus Maximus

Self discipline: Increases Tapasia and the fire where Pitta has its home, encourages the dissolution of past karmas

Keeping Journal: encourages self discovery and view the of conditioning and behavioral patterns

Kapha Balancing Recommendations

Held poses during Sun Salutations: Brings feelings of strength

Practice compassion towards self during dance training

4 - Common body reading

- -In the case of a level 2 pull I would expect the side affected being lower in level compared to the uninjured side. This change in level would be due to the inability to fully straighten/stand on affected leg.
- -Body slightly twisted away from injury.
- A difference in muscle mass might be encountered due to weakness and lack of tone in affected leg.
- -Difficulty in simple motions that bring weight bearing on affected leg
- -Bruising of the area

5 - Contraindicated yoga practices

Most deep forward bends and any standing poses that bring a deep stretch of the hamstrings are contraindicated.

In particular:

Uttanasana

Parshvottanasana

Trikonasana

Janushirshasana

Adho mukha svanasana

Standing

Natyasana (ballet Pose very common in dance classes)

Utthita hasta padangushtasana (same as above)

6 - General recommendations for the condition

a – Therapeutic/free of pain

It is vitally important that treatment for a pulled hamstring starts immediately following injury. The most important phase for treatment is the first 48 hours post-injury. In this time the following can be carried out by the athlete themself:

Use R.I.C.E. (Rest, Ice, Compress, Elevate) technique

Use a **compression bandage** to minimize intra muscular bleeding.

Early mobilization of the injured lower limb is vital for the correct rehabilitation of the muscle. This includes strengthening exercises throughout the pain free range. These can aid with decreasing the swelling in the area. In addition, exercise will ensure that any new material will be laid down in correct orientation thus reducing the risk of subsequent injuries.

See a sports injury specialist.

b - Stabilize situation

- -Rest Injury
- -Allow damaged tissue to heal
- -Avoid motions that will compromise the injured areas
- -Ice and elevation

When the natural healing process begins, applying the JFS to enhance sensitivity and tone/strength/lubricate the whole lower body. Focus on the breath and in creating a flow of movement that is both soft and continue to balance Vata

C- Maintenance and long term considerations

- -Continue with Daily Sadhana
- -Develop strength and stamina in the surrounding muscle groups
- -Increase awareness/sensitivity of the body in motion
- -Generous intake of fluids in particular during Vata season
- -Practice compassion towards self during dance training

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

Q - Would the best exercise for toning gluts be the muscle test for gluts or the fire hydrant or bridge poses?

A - The best for gluteus maximus? I assume you mean that and not the 2 other gluts. The best is to consider all the motions the muscles does then put them into one motion. So for gluteus maximus – it does hip extension, slight ν 10

bduction, and external rotation. That would be sunbird with leg out to side and turned out or a little more challenging
vould be to do this standing as in Natarajasana the Dancer; but the most challenging would be doing these motions from
ocust Salabhasana as by keeping the pelvis against the floor there is more challenge to the muscle tone than the others.

namaste	mukunda	

8 - References and websites

http://www.sportsinjuryclinic.net/cybertherapist/back/hamstrings/hamstringstrain.htm

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Biography

Gabriel was introduced to Yoga by Amar Jyothi, founder of Yoga Loka in Frenchtown New Jersey, where he completed his teachers training in 2005. During this period Amar Jyothi helped him recover from a psoas injury that allows him to return to his performing career as a professional dancer. In February 2005 Gabriel meets Parvathi Nanda Nath Saraswati who introduces him to the Ancient Wisdom Teachings and through that process; he was drawn into a very deep level of self inquiry and transformation, which continues to this day. In November 2005 Gabriel meet Mukunda Stiles and the legacy of Swami Muktananda. Mukunda's spiritual guidance helped Gabriel to find Yoga Therapy as a life long sadhana.

His approach to Dance and Yoga are of Devotional nature, every step an offering to the Divine Mother.