Yoga Therapy:

Neck Pain with Multi-level Cervical Disc Disease

Structural Yoga Therapy Course
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Initial Intake

Mary H. is a fifty-nine year old woman with neck pain, attributed to a traumatic cervical disc protrusion, and nausea on turning her neck. Surgery has been recommended, but Mary strongly prefers not to have surgery, to the point of refusing surgery no matter the circumstances. Quoting from Mary, goals for this period of yoga therapy are to help alleviate the pain and nausea; to strengthen her neck, shoulder and arms, hoping to avoid surgery; and to prepare her for the best possible outcome if disc surgery does turn out to be necessary. She says that "my body is starting to fall apart". "I want to strengthen my neck and shoulder muscles to prevent surgery and keep my hand from going numb."

Mary gives history of a post-traumatic cervical disc protrusion. She was involved in automobile accidents in 2005 and again in January of 2008. The January 2008 accident left her with persistent headaches and nausea when she turned her head to the right. She had an MRI in March or April of 2008 reportedly showing a "herniated disc"; repeat MRI is pending. She had a nerve conduction velocity study in March or April of 2008, reportedly showing carpal tunnel syndrome. A neurology consultation of April 2008 was of minimal value, with Mary noting that the neurologist distorted portions of her history and did not provide a written report of his examination and diagnostic testing. Another neurology consultation with a different physician is pending. Over the month prior to initiating this yoga therapy, Mary has had a throbbing headache all of the time. Headache is described as a five to six (out of a maximum of ten) in the morning, three to four after taking coated aspirin and up to eight to nine at bedtime. She notes intermittent jaw aching which seems to progress to or worsen a bifrontal headache. She notes nausea on turning her head to the right or touching the right side of her neck. Nausea is usually brief in duration and subsides when she keeps her head still. Neck pain is usually in the three to four range, spiking to eight to nine. She notes blurring of vision and seeing double lines. She has been losing balance since January of 2008 where she staggers and sometimes falls on getting up, attributed to a middle ear problem. Her left hand sometimes goes numb independent of head turning or head position.

Treatments for the neck pain and nausea have included massage and treatment by a chiropractor who uses applied kinesiology and "natural" products, possibly homeopathic, possibly herbals.

Mary has lumbar spinal stenosis. Per her report, this is a congenital condition, first noted when she was nine years old. Back pain is aggravated by extension, including when Mary tries to accentuate the normal lumbar curve.

Mary also has celiac disease, a disease "characterized by malabsorption resulting from gluten-induced damage" to the cells lining the small intestine. (Gluten is a "protein found in wheat, rye, oats and barley.")(Cecil's Textbook of Medicine, p. 697) She began having symptoms (diarrhea, heartburn and thirst) as a teenager. She avoids gluten; this condition is worsened with stress and certain foods.

Operative history includes laparoscopic cholecystectomy (removal of gall bladder) and intestinal bypass for weight loss (1978), with weight dropping at that time from two hundred sixty pounds to one hundred sixty pounds. She reports her weight as one hundred ninety pounds at current time.

Although Mary has a limited yoga background, she is very open to yoga and very motivated to do self-care. She had a prior period of yoga therapy (with me) teaching her more about her own body and substantially helping her with hip pain. During the prior period of yoga therapy, Mary practiced savasana and several pranayams for pain, augmenting a prior exposure to relaxation techniques. At this point in her life, she has more pain and less functionality than as a younger person; she wants to improve her health and quality of life, thus taking more control of her life: "make more beneficial use of my time", "I still want to go dancing with my husband". Neck pain was not addressed during prior period of yoga therapy, primarily because medical issues had not been sorted out. Although medical issues are not resolved at initiation of this yoga therapy, problem of neck pain has become overwhelming, making improvement in her neck pain her main priority. Mary and her husband describe themselves as "spiritual people", although not religious. Mary is an artist and art teacher; financial resources are limited, with her income being essential for their family. She has no health insurance. Her life tends to be chaotic, with changing work, eating and sleeping start times and durations. Her husband's work schedule varies from day to day, making it harder for her to keep to regular schedules. She cares for young grandchildren at least several days per week. Mary has been forced to take on more and more responsibility despite health problems, adding to overall stress.

Physical Assessment

General appearance is of a moderately obese, kaphic appearing woman. She intermittently shows signs of pain. She periodically stops her movements, closes her eyes and sits or stands still, apparently dealing with nausea and possibly vertigo.

Palpation of neck shows right paraspinal muscles to be slightly more prominent than on the left, without fluctuance. Even light touch (less than two pounds pressure) one to two finger breadths below the occipital ridge on the right leads to nausea. Right upper trapezius muscle is firmer than the left, with pain at the attachment of the right levator scapulae muscle.

Posterior superior iliac spine was down-going bilaterally on raising knees. No leg length difference or scoliosis was noted.

Range of Motion Assessments

Joint Action	ROM (deg)	9/1/08	9/1/08	9/28/08	9/28/08	11/3/08	11/3/08
	Normal	Left	Right	Left	Right	Left	Right
Neck							
Extension	55	40		43		60	
Flexion	45	16		21		59	
Lateral flexion	45	17	15	20	20	29	27
Rotation	70	42	42	41	42	67	58
Shoulder							
Abduction	40	23	28	26	22		
Adduction	130	115	102	131	124		

Muscle Testing Assessments

Joint Action	9/1/08	9/1/08	9/28/08	9/28/08	11/3/08	11/3/08
	Left, 1-5	Right, 1-5	Left, 1-5	Right, 1-5	Left, 1-5	Right, 1-5
Neck						
Extension	3		3		3-	
Flexion	2+		2+		3	
Lateral flexion	3-	2	3-	2+	3	3
Rotation	2	2-	2+	2	3	3-
Elbow						
Extension	3-	2+	3-	3-		
Flexion	3-	2+	3-	3-		
Wrist						
Flexion	3-	2+	3	3		
Extension	3-	2+	3	3		
Radial deviation	3-	2+	3	3		
Ulnar deviation	3-	2+	3	3		

Notes:
Hip flexors with abdominus rectus participation: weak (2-)
Trunk flexion: weak (2-), unable to elevate
Lower erector spinae: normal
Upper erector spinae: normal minus

Summary of Findings

Muscles to Stretch	***Muscles to Strengthen***	***Muscles to Release***
Sternocleidomastoid bilaterally **Upper trapezius bilaterally**	Sternocleidomastoid bilaterally Upper trapezius bilaterally	**Right upper trapezius** **Right levator scapulae**
	Right biceps brachii **Right triceps** **Right flexor carpi radialis** **Right extensor carpi radialis** **Right flexor carpi ulnaris** **Right extensor carpi ulnaris** **Rectus abdominus**	

Initial assessment is that Mrs. H. has a cervical disc protrusion. Nausea and neck pain on palpation are probably not due to the disc protrusion; these symptoms are expected to be addressed during her neurology consultation. Weakness involving right arm may be due to disuse from pain and debility, the disc protrusion affecting nerves supplying the arm, or possibly carpal tunnel syndrome; again, pending neurology consultation is expected to address etiology of this finding. This is pertinent to yoga therapy in that

yoga therapy would tend to be less successful if finding is neuropathic. Other conditions (lumbar spinal stenosis, celiac disease) are relatively inactive at this time and are not the focus of this period of yoga therapy. Core muscle (rectus abdominus) weakness is a long-term issue not related to neck condition. After discussion with Mrs. H., abdominal muscle weakness will not be addressed during this period of yoga therapy.

Recommendations

Yoga therapy was conducted at Mrs. H's residence. Mrs. H. and I revisited her goal of avoiding surgical intervention, if at all possible, during every visit. Knowing that any arm weakness attributed to radiculopathy (impingement on the nerves going to the arm, posited as resulting from a protruding disc) would lead to a strong recommendation from allopathic medical providers for surgery, initial focus was on the arm, with plan for subsequent focus on neck.

Mrs. H. had previously received the flier for Joint Freeing Series and had received extensive instructions in how to perform the Joint Freeing Series. During the initial visit of 9/1/08, Mrs. H. was instructed to focus on shoulder and arm motions (movements nine through fifteen of the Joint Freeing Series) and, to a lesser extent, on neck motions (movements nineteen through twenty-one of the Joint Freeing Series). We discussed doing arm motions against resistance. Because of neck pain and nausea, we discussed how to do neck motions in an easier fashion, i.e., without gravity loading. Mrs. H. used this portion of the discussion repetitively during the next few months, at times doing neck exercises in her pool or while using her husband's inversion table.

On 9/8/08, right trapezius/levator scapulae were released. At her request, we worked with neck motions while on the inversion table. She was able to rotate further to the right when chin was tucked into clavicle, shortening right paraspinals. The comparable motion standing, with gravity loading, had significant nausea. Mrs. H. was scheduled for an MRI four days after this session.

Visit of 9/15/08 was shorter, intended to 'tweak' her practice. She reported more functionality, but was uncertain whether this was due to her practice or to variation in symptoms. She had been pushing neck motion, especially rotation, to the point of nausea; instructed that she stop motions short of nausea. I felt that she might be aggravating the underlying condition, possibly increasing inflammation, and recommended that she use ice on her neck both during rotation and between periods of her practice. MRI had been done, with results pending. She was scheduled for a visit with her primary doctor with possibility of injection into right cervical paraspinal muscles for purpose of pain control and relief of nausea.

On 9/24/08, Mrs. H. provided a verbal report of recent MRI showing multilevel disc disease and suggestion of "musculoligamentous injury or strain". This is significant in that there was no evidence of other, more serious underlying condition and that this was the first time Mrs. H. had been notified of what was wrong with her neck.

On 9/28/08, after roughly a month of effort, we again assessed arm and neck range of motion and muscle strength with results listed in the tables above. Of note, Mrs. H. had significant improvement in right arm findings without much change in neck findings.

Mrs. H. provided copies of her MRI reports with results as follows:

MRI of 2/11/08: small posterior central disc protrusion C7-T1, posterior central disc herniation at T1-2; “degenerative disc disease at C4-5 and C5-6”; mild posterior disc bulging C6-7.

MRI of cervical spine of 9/11/08: central disc protrusions at C5-6 and T1-2; disc bulging at C2-3, C3-4, C5-6, C7-T1; “straightened cervical lordosis suggests musculoligamentous injury or sprain”.

MRI of brain of 9/11/08: no evidence of serious underlying abnormality

As noted, Mrs. H. had not been apprised of results of MRI of February 2008; she suggests that her physicians had not been aware of these imaging results.

After this reassessment, we switched focus from working on arm to working primarily on her neck.

In the interim between reassessment of 9/28 and subsequent visit, I searched the SYT forums. On 10/6/08, Mrs. H. noted that she was working hard, doing all motions. She was instructed in neck strengthening exercises (Structural Yoga Therapy, p. 180). On 10/13/08, she noted increased stress, including husband losing job due to the poor economy. She had an appointment scheduled with her primary physician for four days after this appointment, possibly to address injection into cervical paraspinals. She noted that she was still doing neck exercises on the inversion table with emphasis on maintaining length; she noted that she was using icepacks. We tweaked the neck strengthening exercises, making sure that she was moving with breath (exhale, lift, turn to one side and then the other, inhale, down). She had significantly less nausea when moving with breath than when moving without coordinating breathing.

On 10/20/08, Mrs. H. was crying and depressed: “Neck killing me, exhausted, depressed”. She was still trying hard, doing all of her recommended motions. She was scheduled to see her primary physician several days after this session, not in the prior week as previously indicated. We reviewed neck strengthening exercises with breath, reinforcing need to work this technique repetitively over the next few weeks.

On 10/27/08, Mrs. H. noted that she had not seen her primary physician. She was scheduled to see a neurologist approximately ten days after this session and to see her primary physician approximately a week after seeing the neurologist. We discussed ongoing strengthening with plans for retesting neck strength and range of motion the following week.

On 11/3/08, after roughly another month of effort, we reassessed range of motion and strength of neck, with substantial improvement as documented in tables above. She still had nausea on forward flexion, rotating to right and lateral bending to right, although she was capable of moving further without nausea than previously. We demonstrated that when she concentrates on keeping her neck long and in alignment, she was able to move further than when bending without effort to keep neck long. The clear recommendation is to bend while keeping neck long and in alignment.

Epilogue: On 11/14/08, Mrs. H. saw a neurologist in consultation. He felt that there was “nothing really serious” going on, giving her the diagnosis of ‘whiplash’, and recommending conservative treatment. He gave her an injection of local anesthetic and cortisone into her neck. The neurologist felt there was no need for surgery. Mrs. H. was

thrilled after this consultation, “I’m really happy”. She understood that this conclusion/recommendation was the result of months of her effort.

Results of Recommendations

Before discussing the results of this period of yoga therapy, it is appropriate to repeat the perspective Mrs. H. had at the beginning of this time period. She had been given the diagnosis “disc problems” without further details. She had not been advised of the results of imaging studies of February 2008; it is unclear if her usual physicians had been advised of results of these imaging studies. Neck pain persisted for a long period of time, far longer than might be expected from accident-associated whiplash. As Mrs. H’s primary physicians had discussed with her, disc problems do not usually cause nausea on palpation of neck. Until the results of the MRI of September 11, 2008 were known, medical personnel had not clarified what was wrong with Mrs. H. Against this background, Mrs. H. tried to exert control over her recovery, and by actively influencing her recovery, influence recommendations made by health care providers. I did not interact with Mrs. H’s allopathic providers.

Weakness in arm on initial assessment was troubling, suggestive of radiculopathy. Such weakness is usually not amenable to strengthening, and would result in a strong recommendation by medical providers for surgical intervention. Fortunately, Mrs. H. was able to strengthen/normalize arm findings.

At that point, we switched focus to neck. Mrs. H. worked very hard, doing recommended motions several times daily, with marked improvement in both neck strength and range of motion. Both Mrs. H. and I consider this period of yoga therapy to have been successful. Mrs. H. has controlled her outcome by her own efforts. Probability of recommendation for surgery decreased from very high (beginning of yoga therapy) to nil (late November), consistent with Mrs. H’s goals.

Description of Condition

In describing Mary’s condition, it seems appropriate to separate the soft tissue injury to neck, ‘whiplash’, from a description of disc abnormalities.

“Whiplash” is a “soft tissue injury caused by neck and head being thrown suddenly backward, then forward” (or forward, then backward) (www.backandneck.about.com/od/bodymechanics/a/whiplash.htm). It is caused by rear end auto collisions, sports injuries, or in ‘shaken baby syndrome’. “’Railway spine’ is an equivalent term used prior to 1928 to describe similar injuries occurring in train accidents” (www.medicinenet.com/whiplash/article.htm). Studies with high speed cameras and crash dummies suggest that in a rear-end automobile collision, the lower cervical vertebrae are hyperextended while the upper cervical vertebrae are hyperflexed (Ibid). Symptoms include neck and shoulder pain and stiffness, arm pain and weakness, back pain, headache, dizziness, fatigue, visual disturbances, and ringing in the ears (tinnitus). In some people, depression, anxiety, anger and stress are attributed to the whiplash. Diagnosis is usually by magnetic resonance imaging (MRI) studies. Treatment is usually conservative, including education, use of a soft collar, ice, use of

nonsteroidal anti-inflammatory medications and muscle relaxants, early mobilization, and possibly physical therapy. Most people recover from whiplash within three months (www.ninds.nih.gov/disorders/whiplash/whiplash.htm*).*

The intervertebral disc separates two vertebral bodies, serving as a shock absorber and allowing for some vertebral motion. An individual disc is composed of an annulus fibrosus, a fibrous outer portion, and the nucleus pulposus, centrally located, composed of a hydrated gel. The amount of water within the disc varies throughout the day, with activity, and with hydration. The disc itself is not innervated, hence not painful. Disc bulges (protrusions) become painful when the bulge impinges on nerve roots or the posterior longitudinal ligament of the spine. Disc bulges are frequent incidental findings on MRIs (www. orthopedics.about.com/od/herniateddisc/g/bulge.htm). Disc bulges (protrusions, herniations) generally are lateral to the posterior longitudinal ligament, potentially impinging on nerve roots. When the bulge (protrusion, herniation) is more central/posterior, the bulge can compress the spinal cord (Cecil's Textbook of Medicine, p. 2235). The difference between the terms 'disc bulge' or 'disc protrusion' and 'disc herniation' seems to be a function of amount of material bulging out. In disc herniation, the bulge is larger but still continuous with the nucleus pulposus (Cecil's Textbook of Medicine, p. 2235). Pain due to a bulging (protruding, herniated) disc is characterized as dull and aching, associated with stiffness. It may be associated with muscle spasm or radicular (neuropathic) pain (when nerve roots are impinged). Pain would increase with maneuvers that raise intraspinal pressure, including coughing and sneezing. Diagnosis is easily made by imaging (MRI). Allopathic treatments include rest, restrictions on lifting, use of heat or ice, nonsteroidal anti-inflammatory medications, physical therapy, weight loss, smoking cessation, possibly steroid injections, and possibly surgery. Chiropractic manipulations and acupuncture have a role in the management of chronic neck and back pain. Almost everyone knows of people with chronic neck or back pain poorly helped by the health care system; this underscores the need for better forms of treatment.

Gross and Subtle Body Common Symptoms

As with most dis-eases, a number of symptoms (complaints, emotions) are related to the physical (gross) body; other symptoms (complaints, emotions) are more involved in the subtle body. Reference is made to the five koshas:

- "anna-maya-kosha, or sheath composed of food; that is, of material elements; the physical body"
- "prana-maya-kosha, or sheath composed of life force; the etheric body"
- "mano-maya-kosha, or sheath composed of mind: The ancients considered the mind (manas) as an envelope surrounding the physical and the etheric body."
- "vijnana-maya-kosha, or sheath composed of understanding: The mind simply coordinates the sensory input, but understanding (vijnana) is a higher cognitive function."
- "ananda-maya-kosha, or sheath composed of bliss: This is the dimension of human existence through which we partake of the Absolute."

(The Yoga Tradition: Its History, Literature, Philosophy and Practice, p. 178)

As with all people going through a therapeutic process, symptoms, emotions, and the therapeutic effort involve the subtle body:

- The “sick role”- being a patient, having much of one’s time and effort spent in the health care system, efforts to have others (including spouse and other family members) understand and accept despite pain and suffering- obviously involves manomaya and vijnanamaya koshas. Anyone with chronic health problems adopts some position relative to the sick role, including a position on the active/passive continuum. Mary has observed her husband being more passive, a chronic (dependant) patient of the VA system. She fights against passivity, wanting to assert control over a health care system even though decision-making rules are poorly understood. The (yoga) therapist, through dispassionate acceptance, can minimize time spent dealing with the “sick role” and help the client focus on healing efforts.
- Depression frequently accompanies pain and decreased functionality. Depression clearly involves manomaya and vijnanamaya koshas. The yoga therapist should be prepared to support the client, including referral as necessary to aid in treatment/management of depression.
- Self-defeating behaviors (again, involving manomaya and vijnanamaya koshas) can impede the healing process. Mary has seen a significant amount of self-defeating behaviors in her husband. She was remarkably directed and free of self-defeating behaviors during this period of yoga therapy.
- The chaotic lifestyle (variable sleep-waking times, variable duration of sleep, variable times to eat, variable work schedule, variable times to interact with family) Mary lives has implications on subtle body, with pranamaya, manomaya and vijnanamaya koshas involved.
- Mrs. H. showed her appreciation and acceptance of healing efforts multiple times and in multiple ways, with implications for manomaya, vijnanamaya and anandamaya koshas. Mention is particularly made of ritual behaviors involving coffee (a particular type that Mary and husband regularly enjoyed) as part of the beginning of yoga therapy sessions. To the extent that the client embraces yoga practices that elevate her, anandamaya kosha is involved; “namaste”, invocation, putting hands to heart and bowing with smile were newer practices to Mrs. H. and husband, all of which were heartily embraced!

The therapeutic modalities used in Structural Yoga Therapy act on the subtle body as well as the gross, physical body. Joint freeing series acts on pranamaya kosha as well as the physical body (class notes), freeing prana “stuck” in muscles and joints with limited range of motion or pain. Relaxation merging into meditation has the potential of involving all of the koshas, both physical (annamaya kosha, pain relief) and subtle bodies.

Related Challenges

Neck pain/weakness having been addressed with substantial improvement, Mrs. H. faces a number of challenges in her life:

- Increase the amount of movement. To the extent that Mrs. H’s life has tamasic kaphic components, increasing amount of movement will bring her back towards balance (sattva). Addressing neck issues- in the process reestablishing her usual balance with the health care system- was a good first step, a bit of

movement. Mary's husband's issues and placing her artwork in a gallery are ongoing projects where movement would help. Continued movement will help pacify both vata and kapha.

- Structuring her chaotic lifestyle, particularly focusing on predictable, regular sleeping and eating times, pacifying vata. Admittedly, this is easier said than done. Her husband's irregular work schedule makes it harder for her to have a regular/predictable family life. Crises related to her children test her ability to cope.

- Lose weight. As someone who has dealt with weight issues throughout most of her life, Mrs. H. knows that weight loss is an essential part of improving her overall health. Weight loss would potentially improve extent of pain due to lumbar spinal stenosis and abdominal symptoms due to celiac disease. She is transitioning past the contemplation phase of decision making: her language is that she is thinking about losing weight; she is starting to explore other choices such as juicing and moving to kaphic type foods, including use of spices tolerated by kapha such as cardamom.

- Strengthen core musculature (abdominals). Mary's abdominal musculature is very weak. Mary's lumbar spinal stenosis imposes limitations on lumbar extension, not on flexion. Weakness in abdominal musculature is probably secondary to her lifelong practice of holding her lumbar spine in a neutral position. Strengthening abdominal musculature would be challenging but not impossible; such practice would probably help with reshaping her abdomen. Making abdomen smaller and more muscular would also tend to lessen low back discomfort.

Ayurvedic Assessment

Mary's body habitus suggests kaphic predominance. History obtained on initial assessment supported that impression, especially the history of intestinal bypass for obesity/weight loss at age twenty-nine. Kapha-"that which holds together" (Stiles, Ayurvedic Yoga Therapy, p. 22) - best describes Mary's role in her family, "holding things together" despite problems arising from finances, husband, her children (from a prior marriage) and his children (from a prior marriage). Admittedly while tired and in significant discomfort, ayurvedic pulse diagnosis by me on initial assessment revealed a low amplitude pulse with kapha predominance. Repeat pulsing on October 20, 2008 again was unchanged. Mary's vikruti is predominantly kapha.

The underlying neck problem has components of all three doshas but is predominantly kapha. Although not predominant, there is a vata component to this condition, with pain being associated with vata imbalance (Ayurvedic Yoga Therapy, p. 32). There definitely was a pitta component to this condition, with both aggravation of condition by overuse (stretching/turning too far), response to anti-inflammatory measures such as ice and anti-inflammatory medications, and that neck discomfort was intermittently sharp/intense, accompanied by nausea. However, the largest component to this condition was kapha. Character of the discomfort suggests a kapha condition, with discomfort being dull and constant in between the pitta-type spikes. Location favors this being a kapha condition, as spine is one of the seats of kapha. Disc herniation is a

kapha condition (class notes). Additionally, Mary responded to this condition with use of kaphic traits ("endure") and seemed to take easily to kapha-type strategies, focusing on strengthening. Although there were components of all three doshas, condition was largely kapha. Strategies for this period of yoga therapy were mostly kapha-directed, with focus on strengthening arm and neck.

Lifestyle issues were also multidoshic. Chaotic schedule with varying eating, waking and sleeping times tended towards vata issues. Mary's life as an artist and art teacher posed pitta challenges; during this period of time, in addition to her regular work, she put on multiple workshops and compiled a catalogue of her work for a gallery. Her small house is filled with all types of objects, including space to teach art students and paint by herself, cat paraphernalia, toys and a play house for the grandchild, an inversion table in the middle of the living room, etc., the picture of tamasic kapha.

Looking at Mary's life from an ayurvedic perspective suggested multidoshic concerns/imbalance, with neck condition being primarily kaphic. The strategy we utilized for this period of yoga therapy was primarily kaphic, focusing on strengthening. This type of strategy was largely successful.

Common Body Reading

Body reading for most people with neck pain regardless of cause shows the neck being held stiffly, resisting movement (Cecil's Textbook of Medicine, p. 2235). Both soft tissue injury (whiplash) and disc bulging/herniation would tend to look the same, with the individual holding neck in a relatively fixed position, trying not to do either lateral flexion or rotation of spine. Flexion may be more comfortable (Ibid). A hard cervical collar might be seen in people with acute injuries or those with more chronic, severe injuries who want to try to immobilize their neck to minimize pain. A soft cervical collar, allowing for more movement of head and neck than a hard collar, suggests that the condition is less severe. Use of a soft collar suggests chronicity; if arising from an injury, use of a soft collar would suggest some time has elapsed since the injury (injury is no longer acute).

Contraindicated Yoga Practices

Instructing Mary in yoga requires knowledge of her multiple problems; lumbar spinal stenosis with limitations in extension imposes functional limitations in her daily life, let alone in the practice of yoga asana. Individualized yoga instruction is necessary for Mary; she would not do well in a group class aimed at the general population, with much of the class period structured around asana which are (relatively) contraindicated for her.

Yoga asana contraindicated because of neck condition include postures which, if done incorrectly, put body weight onto neck such as shoulderstand (sarvangasana) and plough (halasana). Yoga asana relatively contraindicated because of lumbar spinal stenosis, with limitations in lumbar extension (including efforts to accentuate the normal lumbar curve), include relatively basic positions such as cat and cobra (bhujangasana). With careful attention to extent of movement and use of supports as necessary, these simple asana may have occasional value to Mary. Other postures increasing lumbar

extension further such as bridge (setubandhasana) and camel (ustrasana) are not only contraindicated but would be likely to cause marked pain.

Meditation practice should be ongoing, independent of any worsening of physical condition.

General Recommendations

Remember that whiplash is self-limited most of the time; treatment of whiplash, whether allopathic, yoga therapy, or using other modalities, should be supportive during the first few months following a whiplash injury.

The person with chronic cervical disc herniation/neck pain should:

- Focus on keeping neck long, maintaining alignment, whether moving or keeping neck still.
- Ergonomics: adjust one's work station such that normal work doesn't increase strain on the neck. An example might be adjusting height of stool or chair relative to height of computer screen such that the individual doesn't have to work with head held in a flexed position.
- Ergonomics: adjust auto mirrors to provide maximum visibility despite limitations in cervical rotation.
- Ergonomics: choose pillows to provide a long position for the neck and provide adequate support for head and neck during sleep.
- Use of rest, ice, a soft cervical collar, anti-inflammatory medications/muscle relaxants and other supportive measures as necessary.
- Work on strengthening neck, as opposed to focusing on increasing range of motion.
- Continue relaxation/meditation efforts, using pranayams for pain as necessary.
- Look for ways to become stronger and grow as a result of health problems.

General recommendations for tamasic kapha imbalance/kapha conditions include:

- Build strength.
- Increase amount of movement in the individual's life, whether involving health issues or other aspects of the person's life.
- Encourage weight loss! Weight loss will improve most health issues, including most musculoskeletal problems, hypertension and diabetes.
- Focus the kapha individual on ojas (sweetness), emphasizing devotion and a heart-based approach.

A very general outline of yoga-based recommendations for people with neck pain/disc herniation includes:

- Therapeutic/free of pain. Medical issues and treatment predominate in the early stage of condition. Yoga focuses on:
    - Doing Joint Free Series.
    - Developing a daily (physical) yoga practice
    - Developing a daily meditation practice

- Stabilize situation including lifestyle recommendations.
    - Focus on strength, remembering that forward flexion and some amount of rotation of neck is necessary for activities of daily living
    - Adjustment of lifestyle for both condition and doshic imbalances
    - Meditate
- Maintenance/long-term considerations
    - Ongoing work on both strength and range of motion
    - Focus on personal growth
    - Meditate

Meditation is present at all stages of this outline.

Questions and Answers from www.yogaforums.com

Q: Would the neck exercises that you give in SYT text pg. 180-181 be beneficial to someone with a previously herniated cervical disk?
A: They should indeed be helpful gradually progressing to doing 12X

Q: I attended the 2 day London sessions last month which I found inspiring and beneficial. Following the therapy session, you recommended a target of 6 flexion of the head and 4 lifts with the head rotated to the right for the following fortnight, followed by 2 head lifts in sphinx. I have practiced JFS and the additional movements daily. I do feel stronger - there continues to be much change - sensations particularly in fingers and wrists, not always pleasant; generally less shoulder and jaw pain. Computer problems stopped me getting in touch sooner - I have now moved on to 7 and 5 but would like your recommendation for a further target.
A: This series of motions is described in Structural Yoga Therapy book page 180. the goal for optimal tone of each movement of the body is to isolate the muscles and repeat their natural ROM for 12 times. Blessings, Mukunda

Q: Can you give me some insight into the significance of stenosis, and how to work with it?
A: Short answer is to learn to extend spine, make it longer in all poses. The way I do this is to focus on breathing constantly. As you inhale create openness, and as you exhale create length. Focus on spine and region of stenosis yet also allow for the fact that prana is another name for sensitivity.

Q: Recently several clients have been arriving in my studio with serious back problems, (and not so serious ones) including herniated discs, narrowing of the foramen, bulging discs, bone spurs, nerve impingement, and other expected sequelae of spinal stenosis. One client is extremely flexible; another is inflexible and overweight. I feel competent working with routine back care, and have other clients with disc problems who has responded to conservative stretching, abdominal toning, neutral spine etc. I have the energy, breathing and visualization part under control. Can you give me some insight into the significance of stenosis, and how to work with it? Based on the emergence of these new clients, I guess this is an area I need to learn about and work with. Jyoti
A: Short answer is to learn to extend spine, make it longer in all poses. The way I do this is to focus on breathing constantly. As you inhale create openness, and as you exhale create length. Focus on spine and region of stenosis yet also allow for the fact that prana is another name for sensitivity. Where you are sensitive/aware that is where prana is. So openness could be in ankle and length could be in lumbar. End

the pose when one of these two factors is no longer occurring. For overweight person this should work well. For very flexible person if they are sensitive to these subtle changes it will work. Keep them away from trying to generate sensations of stretch, as this will not be beneficial but harmful and destabilizing. Get out anatomy book and show them areas of body where there is narrowing of vertebrae. Then learn to visualize space in physical structures as well as developing the psychic feeling of openness.

Q: I would like to ask about ways that I could strengthen my spine And shoulders after recently being diagnosed with cervical stenosis on the basis of a congenitally narrowed cervical canal as well as bulging of the C5-6 and C6-7 discs.
A: My advice is to only to those motions that alleviate pain, built strength and promote sensitivity to your comfort zone. I would highly recommend you do my Joint Freeing Series daily in harmony with breathing rhythmically as you do the motions. The thought is that as I move my joint I send the breath energy into the joint and free it up for ease of mobility and heightened energy throughout my body. As you do this always remember to extend (open) the joint before moving it. With regards to the neck region do not go to full range of motion but rather hold yourself back to 50% and emphasize feeling spaciousness between the vertebrae. Be especially cautious on extension (looking upward).

Q: I have a person who came to me seeking help. He is in his late fifties and suffered a severe neck injury 20 years ago and lives in constant pain. He has limited range of movement because almost anything he does causes pain in the neck. Just a quick examination with him lying on the floor caused pain in his lower left back. He has been watching one of my classes for several weeks and has decided that yoga may help him. He wants to change his nutrition and begin some kind of movement to improve his condition. He is a Native American and approaches life in a deeply spiritual way. What may I do to help this person?). Would you have any suggestions for him?
A: Again I would start this man with the JFS and pranayama. Breathing exercises beginning with seated or lying simply breathing into the painful area is the way to begin. If he can learn to direct his energy the pain should lessen or even subside to a great degree. For pain I find the major path to go is pranayama and meditation practices. Opening to the Great Spirit who can allow his body to heal. For people in long-term pain, the key is to focus on helping someone else who is in pain. That teaches them by proxy how to alleviate their own pain.

Q: A beginner question: how to straighten the spine?
A: In all poses work to maintain the natural four curves – lumbar and cervical forward; thoracic and sacral posterior. Always focus on lengthening the spine this will straighten it if there are lateral curves (minor varieties of scoliosis). I do not recommend tucking tailbone forward to flatten the lumbar and abdominal as this inevitably leads to sacroiliac troubles.
Paraphrasing: Lengthen and open spine, maintaining natural curves.

Contraindicated practices:
Q: I have been suffering from cervical spondylosis. After seeing my x-ray the doctor informed me that it was not very serious. However, I do feel pain when I turn my neck towards right side, especially in the mornings. I do those neck exercises but there is no improvement. Could you please tell me what asanas are good for this problem and what asanas should be avoided. For the past 8 or 9 months I have STOPPED doing Sarvangasana, Halasana, Sirshasana, Yogamudra & Mayurasana. I

have been doing Padmasana, Vajrasana, Trikonasana, Bhujangasana, Shalabhasana, Dhanurasana, Supta Vajrasana, Paschimottanasana, Ushtraana, Matsyasana & Chakrasana. Please let me know if any of these are not advisable for me.
A: You have eliminated most suspect practices and done what is a safe practice but it is not therapeutic. For therapeutic practice you need to be evaluated for what is weak and what is tight and given specific asanas to address those general challenges. Later on the program can be extended to consider Ayurvedic qualities underlying the symptoms. For this to be made a SYT therapist is best. See my website for graduates or come see me when I travel to your area. In general I know you will need to do neck strengthening so for now do exercise for the sternocleidomastoid muscles on page 180 of my book and tone neck in all directions. Namaste, Mukunda

A more recent post pertinent to Mary's lumbar spinal stenosis:
Q: I've been practicing yoga for 2 years now and I love it. I recently decided I wanted to learn more and to do the 200-hour TCC, I stepped up my yoga practice in order to feel ready, however pain got worse and was bothering me more. I visited an osteopath who has discovered the pain originates in my back. I have three bulging discs in my lumbar spine which press on the nerve. He told me to basically quit yoga (and take up golf!) and said that I shouldn't do any forward bends at all.
Does anyone have experience of this? I feel really depressed that I made the decision to make yoga a big part of my life and I have been told to give it up.
A: Sorry to hear of your condition. I also suffered 2 herniated disks at 27 (now some 33 years past...) and spent many years trying to find relief. Long story short I was advised to have Spinal Fusion done, but resisted after discussing with a doc who suggested I keep searching and working and if things didn't deteriorate I was better off 'waiting' on that option. At that time Yoga was not part of my life.
Long story short - aside from the usual attempt at drugs the thing which helped most was to focus on strengthening 'core'. As Maryjane notes, core strength goes a long way to stabilizing the spine and reducing chances of further or progressive injury.
When I didn't pay attention to core for a period of time, I would always be paid by an 'attack', often reducing me to days in bed, prone.
I finally was able to get a good strengthening program going and that brought me back to what I now consider 'normal'. I do most anything anyone else does, only I'm always aware of things which might cause re-injury.
Like IA mentions, there is a strong possibility of considerable 'healing', as has happened for me.
I do 'slow' yoga, holding poses for as long as it takes to get 'comfortable' in the pose and also determine my 'limit'. This also assures more 'strengthening', since whatever is getting use is getting used strongly.

Yoga has added to my continued improvement of 'core' strength and also suppleness and flexibility. But that's after quite some healing had already happened. I really can't give any advice on how to proceed in Yoga with a 'fresh' back injury. But I don't believe it should be ruled out - and is most certainly better for you than golf, tennis or any other unbalanced activity.
Finally, kicking myself now, it took me almost 20 years to decide to get an inversion table. I tried the 'inversion boots' thing way back and found them awful, consequently I 'wrote' off the table idea. Last year I finally decided and got an inversion table and it has been 'HUGE', INCREDIBLE in what its done to further improve my back condition.
Gotta say my back now feels better than I can remember it being in the past 33

years! And I'm psyched to continue that trend.
In all, it was not ONE thing. It's what you do every minute of every day and every little thing you can to help you get to 'better', including your nutrition and mental approach to the day. Creating an environment for a 'better back' will create a better overall you. Best of luck in having a better day, every day, Cyclzen

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About the Author

Fred Wasserman practiced as an internist and administrative physician for the Department of Veterans Affairs for twenty years. He is now exploring wellness, alternative medicine and personal growth. Other training includes having completed the Fellowship in Integrative Medicine at the University of Arizona School of Medicine (2002) (Andrew Weil's program).

Original Editors - Chad Adams, Jacob Melnick, & Tyler Shultz. Lead Editors Tyler Shultz, Kim Jackson, Eric Robertson, Jacob Melnick and Evan Thomas. The purpose of this clinical guideline is to describe the evidence based physical therapy practice including diagnosis, prognosis, intervention and assessment of outcome for musculoskeletal disorders related to neck pain that are commonly managed with orthopaedic physical therapy techniques. Cervical osteochondrosis is a disease of the intervertebral discs of the cervical spine. The first signs of the disease appear at the age from 25 to 40 years. Osteochondrosis of the cervical spine causing headaches in 30% of cases.Â Other symptoms of degenerative disc disease of the cervical spine: tinnitus, decrease in visual acuity and hearing, and sometimes nagging pain in the heart area. What are the dangers of cervical osteochondrosis. Osteochondrosis of the neck is the most dangerous kind of disease. In small the cervical spine undergoes a lot of nerve channels and blood vessels that feed the brain. In the cervical vertebrae more closely adjacent to each other. Besides neck pain and dizziness, people with VAD often get headaches and can have difficulty maintaining balance and coordination. Treatment for VAD is focused on reducing stroke episodes, and repairing the tear in the artery.Â Dizziness following a neck injury can be attributed to inner ear diseases, and even other types of vertigo. Aside from dizziness accompanying the neck pain, ear pain is also a possible symptom. Patients with cervical vertigo shouldnâ€™t experience any hearing loss. Cervical vertigo experts recommend treating with physical therapy and medication to relax your muscles and ease pain. The very same experts do not encourage patients with any type of vertigo to have their neck â€œsnappedâ€ by a chiropractor, as this causes arteries near your neck to compress.