

# Posterior Neck Pain Radiating to Right Shoulder

Structural Yoga Therapy Course

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## **. 1 - Case study**

### **a – Initial intake –**

My case study involves a woman I have known for 14 years. In her mid-forties, Iris (name changed) has come to my yoga class twice a week for 2 years. She suffers from chronic neck and right shoulder pain. She is post-radiation to the throat for tonsillar cancer diagnosed at Thanksgiving of 2005. When she was diagnosed she was just 5 years out from treatment for breast cancer. She had bilateral mastectomies with isolated lymph node removal and chemotherapy at that time. She then had bilateral reconstructive breast surgery and removal of her ovaries as prophylaxis. Iris is the busy mother of 2 teenage daughters and is married 22 years to a man who struggles with drug addiction. During Iris' therapy for her tonsillar cancer her husband began abusing pills. In addition, Iris was sexually violated by her maternal grandfather when she was 5 years old and her father, whom she adored, died of brain cancer when she was an emerging teenager. Iris states, *"My neck is tense. It goes into my shoulders, weighted more on the right. I know I am holding my feelings there. I am always holding on, waiting, anticipating, holding the candle of hope."* Later she states, *"I can't lift my head off the floor. I have to use my hands to lift my head"* Iris speaks of having a lot of sadness. She knows she has years and years of *"stuck emotion"* in her neck and shoulders. She points to the right, upper trapezius and says that sometimes it *"locks here"*. When this happens she describes it as a level 8 pain that is sharp and radiates down her right shoulder. *"It usually happens every summer on vacation. Sometimes it is an annoying ache with knots. I have trouble sleeping. I lay there trying to figure it all out."* Iris is familiar with the 7 major chakras and offers that her cancer occurring in the throat area may be linked to her trying to *"find my own voice and learn to stand up for myself."*

Iris has been medically cleared for Structural Yoga Therapy (hereupon referred to as SYT). She sees a psychotherapist once a week and has for 13 years. She receives an occasional massage for her neck pain/discomfort. Iris takes prescribed anti-depressant medication, thyroid replacement, and medication for osteopenia. She can take, as needed, pain medication for morning sore throat. Iris cannot sleep on her belly, her favorite position, because the breast implants get in the way. When she lies on her right side to be most comfortable, her husband's snoring and breath are in her face. She sleeps on the edge of 2 large, traditional pillows. Her feet are always cold and in general it is difficult for Iris to feel warm. Her only other form of exercise was walking a dog that can no longer go for walks. Iris is in the car on average, four hours a day. Iris is vegetarian and eats small frequent meals throughout the day. She continues to suffer from dry mouth and sore throat, with difficulty swallowing dry foods like pretzels and cereal. Iris states, *"My mouth still has weird flavors in it. I have to eat slowly, but this is hard because my dog constantly barks at me."* As Iris is telling her story her mouth is quite dry and her voice wavers. She must always be sipping water. When asked what she finds uplifting, Iris states, *"my kids and my friends, people who are on the same page and spiritual path. Also, my own art and my music: rock and roll for energy, and soloists who delve into their own souls."*

Iris is 5 feet, 3 3/4 inches tall. She is very thin; "Balanchine ballerina" body type. Her skin is thin and dry with visible, small, blue, surface veins. After chemotherapy hair grew back curly and coarser with minimal graying. Nails are thick and dry. She appears very fragile, as if she could "break in half". Iris is a Libra. She states, *"Here with you I feel safe."* When asked what are her goals for her SYT program, Iris states, *"to live stress free."* When asked how she might sabotage

her own efforts, she states, “By giving my power to my husband”. Iris states she is very committed to the case study process. She believes that the deeper teachings of Mukunda Stiles can assist her in achieving her goals. As, Stiles states, “Classical Yoga is rooted in transformative experience.” Structural Yoga Therapy, chapter 11, pg.

**b- Physical assessment and posture body reading-**

Standing posture, anterior view, reveals that both shoulders are elevated with a higher right shoulder with the right shoulder slightly more forward than the left. Chin is slightly lifted with occiput drawn posteriorly and neck in slight extension. Head tilted to the right a small degree with left rotation as if looking away from shoulder. Knees are close together as hips appear slightly internally rotated. Left arm appears longer than the right. Side view reveals a “hunched” look to posterior neck and upper back. “Emotional, or even psychic, traumas can create postural change. If Yoga is approached for the purpose of unwinding this trauma, it may be found that the pain level increases, until the multidimensional nature has integrated the new experience of being free of traumatic memory”, adapted from Stiles, Structural Yoga Therapy, chapter 11, pg. 91-92. Sacroiliac test appears normal and client has no complaints in the sacral area. No spinal curvatures are obvious either in half and full forward bends, (scolimeter not available). No leg length difference noted. Client shares no other physical complaints outside of neck/shoulder, so this will then be the area of focus.

Joint Action	ROM	5/2/08		7/11/08		10/31/08	
		Left	Right	Left	Right	Left	Right
<b>NECK</b>	Norm°						
Extension	55°	<b>28*</b>		50**		50	
Flexion	45°	<b>30</b>		38		40	
Lateral Flexion	45°	<b>18</b>	<b>30</b>	30**	40**	34	42
Rotation	70°	<b>34</b>	<b>41</b>	56**	60**	60	60
<b>SHOULDER</b>							
Abduction	40°	<b>34</b>	<b>30</b>	42	38	40	42
Adduction	130°	<b>115</b>	<b>120</b>	120	132**	120	130
External Rotation	90°	90	90	92	94	88	90
Internal Rotation	80°	80	90	94**	96	82	90
Flexion	180°	190	180	180**	180	180	180
Extension	50°	<b>45</b>	<b>42</b>	48	50	46	48
<b>ELBOW</b>							
Extension	0°	0	0	0	0	0	0
Flexion	145°	143	145	140	145	145	145

**\*Significant deviations in bold      \*\* Significant improvement**

<b>Muscle Testing Assessments</b>						
<b>Joint Action</b>	<b>5/2/08</b>	<b>5/2/08</b>	<b>7/11/08</b>	<b>7/11/08</b>	<b>10/31/08</b>	<b>10/31/08</b>
	Left, 1-5	Right, 1-5	Left, 1-5	Right, 1-5	Left, 1- 5	Right, 1-5
<b>NECK</b>						
Extension	NT	NT	2		2-3	
Flexion	NT	NT	2		3	
Lateral Flexion	NT	NT	3	3	3-4	3-4
Rotation	NT	NT	3	3	3	3
<b>SHOULDER</b>	<b>5/23/08</b>	<b>5/23/08</b>	<b>7/11/08</b>	<b>7/11/08</b>	<b>10/31/08</b>	<b>10/31/08</b>
Abduction	2	2	3	3	4	4
Adduction	3	3	4	4	4	4
External Rotation	3	3	4	4	3	4
Internal Rotation	2	3	4	4	4	4
Flexion	3	2	3	3	4	4
Extension	3	3	4	4	4	4

**NT= Not Tested to extreme weakness and complaint of discomfort**

**c – Summary of findings -**

What is tight?	What is weak?	What muscles need release?
Pectorals bilaterally	Bilateral SCM	Upper portion of upper trapezius
Right serratus anterior	Middle trapezius	Splenius capitis*
Upper trapezius	Posterior deltoids	Semispinalis capitis*
Levator scapulae	Lower trapezius	Splenius cervicis*
Right anterior deltoid		*(form occipital triangle)

**d – Recommendations for loss of tone and flexibility**

**5/2/08 Initial session:** Intake interview and Range of Motion(ROM) assessment conducted. Neck muscles visibly weakened so decision is to do Muscle Testing(MT)at a later time. Bilateral Sternocleidomastoid(SCM) muscles appear weakened and mildly overstretched due to tighter upper trapezius, and levator scapulae muscles, as evidenced by results of ROM testing and posture body reading. Client reveals at this time that her father had the same way of chronically holding his head and upper body. Client is shown pictures of the SCM muscles and the muscles of the neck. To gently strengthen the SCM Client is given the last 3 movements of Pavanmuktasana: The Joint-Freeing Series (hereupon referred to as JFS) from Stiles, Structural Yoga Therapy, Chapter 15, pg. 130-131. These movements are #19 neck extension and flexion, #20 neck lateral flexion, and #21 neck lateral rotation. All 3 movements are instructed to be done comfortably seated, very slowly, mindfully and with the breath, bringing the awareness into the muscles as they are experienced in each movement. We discussed the meaning of the word Sadhana and

that her mindful performance of the JFS movements is a method of spiritual practice. Client then demonstrated each movement for me so that I felt she had an understanding of the homework. It was decided that each movement would be repeated 10 times. I gave Iris a copy of the JFS and circled the movements. I encouraged her to conclude with 5 minutes in Savasana. She said she would do this everyday in the morning between 7:30 and 9 am. We discussed the importance of committing to finding time during the day to come to stillness, dropping the awareness into the body in order to feel refreshed. Iris is lying supine and I ask her to bring her arms out to the side like a "T" with her palms up and her arms held 1 inch off of the floor. She holds this pose for approximately 60 seconds when she experiences *"burning, like a fire between my shoulder blades."* Bringing her arms to rest she states that she feels an intense nausea and "electricity" in her head. She uses the words "prickly" and "tingly" to further describe her experience. She says, *"This is bizarre. I have never felt like this before."* We discuss the fact that Iris may have experienced a release of stuck Prana and that this is often accompanied by the sensations that she reports. She appears amazed and says, *"this all feels very powerful."*

#### **e- Results of recommendations**

**5/9/08 Second session:** I asked Iris the "What's up?" question. She states, *"Aaaaaahhhh, my husband, he's driving me crazy. He's been abusing his medication and acting crazy. I have had it. I talked with his psychiatrist and she is not going to prescribe them anymore and I am supposed to detox him off of them."* In another statement, *"He screams at me and the girls, says these horrible hurtful things to us and acts stupid. The girls do not want to be around him."*

Iris states she did the movements everyday but that they were "killer" in that she felt that same level 8 pain. Iris looks very distressed and it appears that she is holding back tears. Her mouth is very dry and her voice sounds as if it is closing off. I have her come into savasana and I, with her permission, cover her with a warm blanket and begin to hold her feet. I instruct her to allow the breath into the nostrils and to feel it flow like "a wave" down past the navel and like a wave to flow up and out. I match her breath and then begin to slow and deepen my own breath. Iris' face smooths out and her breath slows. She remains in savasana for 10 minutes. Afterwards, Iris appears calmer, more relaxed and is yawning. I give Iris a quote from Mukunda Stiles taken from Structural Yoga Therapy, Chapter 9, pgs. 91-92, "If you approach yoga for the purpose of unwinding this trauma, you may find the pain level increases, until your multidimensional nature has integrated the new experience of being free of traumatic memory." We discuss how after trauma that part of the body may "go to sleep and become unconscious".

**New recommendations:** Iris is instructed to refrain from doing the previously prescribed movements as they may be aggravating the chronic tightness of her upper trapezius and levator scapulae. Her new homework, from the JFS, is movement # 13, 14 and 15 to begin to strengthen the deltoids, and middle trapezius and to open the pectorals and serratus anterior. In addition the latissimus dorsi, biceps, and triceps will be engaged and toned. These movements were demonstrated using the inhalation and exhalation as the guiding rhythm, 10 times each, slowly. The demonstration was returned accurately. The movements were circled on the JFS sheet. Iris is to conclude her homework with 10 minutes, minimum, in savasana using the "Wave Breath", Stiles, Structural Yoga Therapy,

Chapter 7, pgs. 53-54. Wave breath is demonstrated and the return demonstration was accurate.

**5/23/08 Third session:** When asked “What’s up?” Iris states, *“I have this nasal thing going on”*. She says, *“I clench my teeth all the time and it causes me pain. I was at the therapist yesterday with my husband and I cried the whole time. I can’t take him anymore. I am tapped out of being tolerant and compassionate. I want my freedom back.”* Iris is a Libra. She states her friend says that Libra is what balances the arch of the rainbow. Her name in Greek means rainbow. Iris states that this is where she *‘wants to go, I want balance. I feel like I am fighting for my life.’* Iris is in a supine position her jaw is clenched, hands covering her heart. I asked her what she was feeling in her body right now. She says, *“tired, my body is liquid.”* Asked to tell me more, she said, *“I am floating out of my body. It’s good. I can relax my body more.”* Iris states that she feels as if *“it is starting to open up”*. She points with one finger to the right upper trapezius. She was able to do the movements most days this week. Iris expresses appreciation for this work. She says she knows the Structural Yoga Therapy is truly helping her.

Shoulder and arm muscles tested at this time.

**Additional recommendations:** Iris is instructed to continue doing movements # 13, 14 and 15 as previously prescribed. She is instructed in the use of the Wave Breath with Yoni Mudra, as described in lectures given by Mukunda Stiles, Structural Yoga Therapy Course 2007-08. Iris properly forms the Mudra, pads of thumbs touching each other and the index fingers touching. She is instructed to place this “triangle” wherever it is comfortable over her pelvis. She has an understanding that the pelvis is the seat of Prana and that using the Wave Breath with awareness she can “bring the Prana home”. Iris demonstrates the breath pattern with the Mudra and she states that she feels her sinuses opening up and she is experiencing warmth in her pelvis. We discuss Prana as Consciousness. I introduce her to the Ayurvedic concept of the Doshas and Koshas. I begin to describe the Vata Dosha. I sense that she may be overwhelmed with information at this time, so I tell her we will continue with this discussion next session.

**5/30/08 Fourth session:** Asked the “What’s up?” question, Iris says she is sleeping poorly and that she cannot stand her husband. She states that *“He is sucking all of my Prana. He has been home all week with this lung thing and I have not been able to do my practice like I want.”* Iris points to her occipital region and states that she feels the Prana *“moving down”*. She has been trying to maintain her conscious Wave Breath as she moves through her day, and is practicing drawing her shoulders back and down as she lifts her heart. She describes her effort to hold onto her “power” and to take in the Prana.

**Additional recommendations:** Iris is instructed to continue daily with her morning spiritual practice and to now include JFS movement # 6 cat bow isolating the movement to just the middle trapezius. Iris has difficulty connecting with the space between her shoulders blades. With a gentle touch to the area I ask her to draw her heart toward the floor as she brings her scapulae together creating a valley between the bones. Then by reversing and spreading her scapulae apart like wings she can lift that space like a mountain toward the sky. This seems to help her isolate the middle trapezius. I show her a picture of the trapezius muscle. She expresses how helpful the pictures are in her understanding of the therapy. Iris will also add JFS movement # 7, sunbird, to tone and relax the erector spinae

muscles and the deeper muscles of the neck. She is instructed to modify the movement by keeping the head in flexion throughout. She says this “*feels good*”. Movement #6 to be done 10 times with the breath and # 7 is to be done 6 times. Savasana with Wave Breath and Yoni Mudra is to be increased to 15 minutes.

**6/2/08 E-mail message from Iris:** “Hi, Bella,

*I just wanted to give you a quick update on what’s been going on. I would call but my house phones are not working for some reason.*

*I slept so much this weekend. Every time I laid in bed to watch a movie or show with Fred, I fell asleep. It was most of Sat. and Sun. Also, the back of my head and neck have been burning and tingling. Sunday it went to the top of my head and temples. At 3:15 this a.m., I woke really nauseous. Went back to sleep and at 5 a.m. was again really nauseous, had some loose stool. Then while making girls lunch, I got very flushed and a wave of hot/cold sweat and nausea swept over me and dizziness. Didn’t know whether to faint or throw up. Sat down, then tried throwing up (nothing) then had more loose stool. Fell back to sleep, woke just in time to wake girls. Went back to sleep on and off until about 10 am. Am feeling better now, just have a burning sensation in neck and back of head.*

*Don’t know if this is all related to yoga practice (didn’t do it today). Could be part bug. But even Fred thought I was able to sleep because he is finally doing better and I don’t have to hold it all together. He also mentioned the yoga practice could be playing a part. Don’t know. I just laid down and did a little breathing asking my Prana to come down from my neck and into my triangle. Made me a little dizzy, so I just laid there for a bit. There is still this slow burning feeling in my head and neck that is driving me a bit crazy. I can’t get rid of it. I just keep breathing into it but I think it’s going to be there for a while.*

*Anyway, I wanted to tell you all this before I forgot it”.*

**6/4/08 E-mail contact with Iris:** I sent to Iris via e-mail a copy of “Balanced Attributes of the Doshas” pages 30-31 from Mukunda Stiles, [Ayurvedic Yoga Therapy](#), Chapter 2, Ayurvedic Concepts. I asked Iris to read these pages. I said we would discuss these pages at our next session.

**6/13/08 Fifth session:** I ask Iris the “What’s up?” question. She states that she feels a lot of “*cracking*” as she does her yoga practice. She experienced a real “*pop*” in her neck this a.m. that she feels was a “*good thing*.” I showed Iris pictures from Frank H. Netter, Atlas of Human Anatomy, Plate 17, Cervical Vertebrae: Atlas and Axis; and Plate 178, Suboccipital Triangle, Muscles and Nerves.(see appendices 2,3) She found this very helpful in assisting her to visualize the deepest anatomical structures involved in her experience of tension and the associated pain/discomfort. Iris states she is enjoying the prescribed movements. She feels she is getting stronger and “*moving forward*”. She said “The stuff about the Doshas makes so much sense to me.” She says she knows this is going to be a long process.

**Additional recommendations:** In an effort to further release the muscles of the suboccipital triangle and upper trapezius, I instructed Iris to come into Sphinx pose. I instructed her to lift her heart and at the same time draw the shoulders back and down. I then told her to very slowly, during a long, mindful exhalation, to drop her head bringing the

neck into gentle flexion. She did this and said she felt an “opening all the way down”. I asked her to sustain this until her body sent her the message to slowly come out. I instructed her to release the pose in the reverse. She thought this was a good release for her. She then instinctively moved into Child’s pose which she finds really enjoyable. She will now add these 2 poses to her morning spiritual practice.

**6/20/08 Sixth session:** Iris had to put her beloved dog to sleep yesterday. *“Bubba got me through both of my cancers. He was there for me when my family couldn’t be. This is the first time I have been able to cry. He had his head in my lap and was looking up at me.”* Iris is clearly heartbroken and bereft. She says her neck is *“killing”* her. After her tears subside, I have her lie down on her mat and she begins the Wave Breath. I then place my hands on Iris’ ankles, gently but with commitment. I watch Iris’ breath, matching it. Iris’ breath slowed. After a time, I then went to her head and placed the index, middle and ring fingertips of each of my hands lightly along her suboccipital ridge. She described a tingling and then a burning sensation to that area. I instructed her to apply Yoni Mudra. She said she could feel the energy moving downward. The space between her eyebrows smoothed out and the corner of her eyes uncrinkled. After approximately 15 minutes, she stated *“I want to stop. I think that is enough for today.”* I recommended doing some “cocooning” over the weekend, doing as little work as possible and focusing on self-compassion activities. She mention taking a hot bath and getting in some extra naps.

**7/11/08 Seventh session:** Iris brings pictures of her beloved dog “Bubba”. Bubba is pictured with her daughters and in front of a pink, blossoming cherry tree. Iris states they will plant a cherry tree in Bubba’s memory. She is smiling. Iris states that although her pain is present in her neck, she feels she is getting stronger and that *“Things are balancing out. I feel it working out from a deep level.”* She states she feels I can now muscle test her neck. I also performed a second set of ROM measurements.

The change in the ROM measurements for the neck were significant, particularly for extension, lateral flexion and rotation. In the shoulders, there was significant change in the measurements for adduction and left internal rotation. (please refer to ROM, MT assessment chart)

Iris is excited about the improvement and balance she is achieving in her ROM, muscle tone and strength. Because Iris continues to have varying degrees of pain/discomfort to her neck and right shoulder, she is especially glad to have this data as it demonstrates to her the results of her discipline and spiritual practice; her sadhana. She will continue with her program that includes:

cat pose with slow rhythmic scapular adduction and abduction while head is in neutral position relative to the spine, using the breath as a guide a minimum of 6x

sphinx while pulling forehead away from shoulders, lifting the heart and then slowly lowering head to a comfortable position and remaining there using the Wave Breath until body signals to come out

sunbird keeping her head in gentle flexion repeating with the breath as a guide a minimum of 6x



extended child/child pose, breathing into the back remaining until body signals to come out

savasana with Yoni Mudra utilizing the Wave Breath, minimum of 10 minutes

### Yoga Nidra

**7/25/08 Eighth session:** Iris' requested the neck pain release technique for today's session. Once on the table, she initiated the Wave Breath and Yoni Mudra. I held Iris' ankles gently near the pulses and she began to share about her challenges with her 2 teenage daughters and her husband. She also spoke about visiting with her dog "Bubba" in a dream. She said that even though he is not here anymore "*I feel he is guiding and protecting me.*" At one point she paused and said "*What are you doing? Taking the negative energy away? I feel like it is leaving my body out through my legs.*" I reinforced with Iris that this result is linked to her hard work and the discipline she is applying to her sadhana. I reiterate with her that she and she alone is in control of her perceptions and level of willingness through her attitudes. We discuss **Yoga Sutra I- 12**, from, Stiles, Yoga Sutras of Patanjali. The sutra states: **The vacillating waves of perceptions are stilled through consistent earnest practice and dispassionate non-attachment.** We talk about the fact that the deepest form of love is found within a state of non-passion. In the dispassionate realm all truth is available and choices can be made in alignment with the will of the Higher Power. We discuss the use of this sutra where it involves matters between family members. **Yoga Sutra I-13 states: Of these two, practice is the continuous struggle to become firmly established in the stable state of the True Self.** I move to Iris' head and begin gentle fingertip pressure at the occipital ridge. She is visibly relaxed and says "*This feels so good.*" We discuss **Yoga Sutra I-14: That practice is indeed firmly grounded when it is pursued incessantly, with reverence, for a long time.** Iris is blessed with an ability to deeply understand these words. She understands that the program of Structural Yoga Therapy is carved out of the ancient bedrock of these time-tested Yoga Sutras of Patanjali. She is clearly motivated to deepen her application of these principles in all of her affairs.

**10/31/08 Ninth session: Third set of measurements taken.** Iris continues to use Yoni Mudra regularly as she practices Yoga Nidra. She continues with her SYT program.

### **2 a – Name and description of the condition**

Iris' posterior neck and right shoulder pain may be complicated by the long-term effects of the medical use of ionizing radiation for the purpose of curing her tonsillar cancer. The long-term effects can include fibrosis to the muscles of the neck resulting in tightening of the tissues from a diffuse scarring process resulting in muscle stiffness and bone sensitivity. Using horizontal, cross-sectional lines, the area of radiation exposure in this case, extends from nose back through to occipital ridge and from just below the manubrium back through to the top of the mid-trapezius.

As a result of the radiotherapy, Iris has chronic dry mouth, dry skin to her face, neck and shoulders. This entire area is problematic for Iris. As an apparent result of chronically held tension in this area, there is radiating pain down the right shoulder.

## **b – Gross and subtle body common symptoms**

Common symptoms on the gross level include the experience of sharp pain to a specific area and dull, aching discomfort that is more generalized. Also a sensation of the neck “locking” may occur. Another gross level symptom is the experience of “heat” in the neck and shoulders perhaps from inflammation from soft tissue trauma.

Subtle body symptoms include a feeling of “stuckness” from the root of the neck to the crown of the head. Iris also has difficulty “swallowing” and taking in certain aspects of her reality, particularly where it involves her relationship with her husband. There is a feeling of “too much hard energy in the head” and being “top-heavy” and off balance. She has stated *“I don’t even know where my head is.”* In his book, Structural Yoga Therapy, chapter 3, pg. 19, Stiles states, “In order to root out these causes you must take a close and fearless look at your bodily experiences.” He asserts that “Tension is a sign of betrayal of the Self.”, Chapter 10, pg. 85. This affects the first Kosha or veil, the Anamayakosha, or physical body. In Ayurvedic Yoga Therapy, Mukunda Stiles describes the Annamyakosha as the densest and composed of food. The second Kosha or veil, the Pranamaya Kosha, is the breath body. Iris’ trauma as a young child and then the subsequent violation to her physical self due to twice requiring therapy to treat cancer, may have “blown a hole” in the pranamaya sheath allowing for a chronic leak of the Life Force Energy. The Apana Prana, the downward energy of elimination may be stuck and hardened, (SYT lecture notes). The Apana Vayu, the portion of the breath that drives elimination of toxins and negative energy, may be limited in it’s ability to clear the first and second subtle bodies or sheaths. The Udana Prana is the upward flow of the Life Force Energy. The Udana Vayu, or upward moving air allows for the flow of self expression, and the ability of the neck and head to feel light, clear, centered and lifted.

## **c – Related challenges – lifestyle, diet, limitations on activities**

Iris’ experience of her neck and shoulder pain can leave her feeling depleted. She spends her days in the service of others and finds it difficult to make space in her days for rest and recovery. She can even find her home environment less than safe as she attempts to find space and time to “let go”. She drives in the car approximately 4 hours a day. She recently helped a delivery man move a patio table because he had “no one to help him.” She also took a tumble down her stairs and on another very recent occasion, fell out of bed and badly bruised her left elbow. All of these things set her back somewhat in her attempt to get pain relief in her neck and shoulders. In Structural Yoga Therapy, chapter 9, pg. 81 Stiles states” For any real change to occur, the body/mind must be clear and have enough vitality to manifest the intention to change. Even though change is desired, it may be accompanied by unfamiliar and, very likely, uncomfortable sensations. Without enough pain, discomfort, passion, or ego, no change will be made. There must be motivation for true transformation, not merely a desire to change superficially.”

Iris has difficulty swallowing because of residual pain from radiotherapy. It is especially a problem in the morning. According to her doctors, it appears she may also have had some

maxillary and mandibular bone loss resulting in loose teeth. This worries Iris. Her mouth and throat are chronically dry. Constipation is a problem. Iris is vegetarian and eats small meals throughout the day. She enjoys dry foods like, crackers, cereal and muffins even though they add to her feeling of “dryness”.

On the subtle body level, Iris’ flow of energy may be challenged within every chakra. Chakra 1-2 may be disturbed because of the sexual violation she experienced as a young child. As a result, Iris speaks of her need to control her environment in order to protect herself from further physical and psychic violation. This is an issue she deals with in psychotherapy. The energy in Chakra 3 cannot expand freely when she becomes frustrated that she cannot exert her will to change what happens around her. Chakras 4-5 are affected as the love that Iris very naturally wants to extend to others is taken advantage of and her ability to voice her emotions is blocked. The 6<sup>th</sup> chakra is at the level of the suboccipital ridge. This is the area of the 3<sup>rd</sup> eye, the seat of intuition. This is the area that is at the crux of Iris’ experience of pain. Energy blocked here could interfere with her ability to trust her intuition as it combines with her intellect. The energy in Chakra 7 may then become stagnant and heavy, resulting in an inability to think with the clarity afforded by wisdom. So the decisions Iris may make regarding lifestyle and her level of “efforting” toward others leaves her feeling depleted, frustrated and, at times, angry. Iris seems to struggle with developing and maintaining connection to the first and second sheaths, the Annamayakosha and the Pranamayakosha. Thus her neck and shoulders are never given a break from carrying the burdens locked within the subtle body. Mukunda Stiles speaks of the necessity of developing sensitivity and self-restraint so that the messages of the body can be heard and followed. Thus discriminative awareness can be learned as a technique toward the management of pain.

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

According to Stiles, in Ayurvedic Yoga Therapy, chapter 1, pg.6, the 5 basic elements of creation- earth, water, fire air and ether come together to manifest as the doshas. The doshas are the biological, vitalizing forces of life. Each human being is a combination of these doshas and by nature these forces are given to instability and can become imbalanced. Dosha is “That which is unstable”. The art of living healthfully is keeping the 3 doshas in balance. The 3 doshas are Vata, Pitta, and Kapha.

Vata equals Prana. Vata means “that which moves”. Vata is the dosha that looks for safety. Chronic pain is a Vata imbalance. A feedback loop can be formed as imbalanced Vata that creates pain and then displaced Vata further feeds the pain. Persons with a Vata imbalance often experience neck pain that is stress and trauma related. Anxiety and fear of actual or potential threats to safety are its characteristics. Iris shares her disturbances regarding not always feeling safe and unsure about what is going to happen in the future with her husband and her own health. **Yoga Sutra II-16: The suffering from pain that has not yet arisen is avoidable,** Stiles, Yoga Sutras of Patanjali. This is what asana and sadhana are all about. A yogi asks the question, “How do I remove the suffering from my experience?”. from class notes, SYT course, January, 2008. Pitta can manifest as inflammation and heat. Pitta may reside in Iris’ neck and shoulders in relation to her collected feelings of frustration and being “very annoyed” with her family members. Iris’ “efforting” may increase the Pitta in her neck. “Pitta inflammation is from “wanting what isn’t.” Anger can grow out of a Pitta imbalance. Increasing bodily awareness with discernment balances Pitta. Attachment issues may reflect a Kapha imbalance” adapted from Ayurvedic Yoga therapy, chapter 4, pg. 54. Connecting with nature, loving- kindness meditations and practices of compassion toward the self, balances Kapha.

## **Ayurvedic based yoga recommendations:**

Vata pacifying asana brings Vata back home to the seat in the pelvis. Slow, rhythmic yoga poses utilizing the breath while deepening the awareness of physical sensations and the emotions that may arise, results in reorienting displaced Vata. Vata is balanced by mindful repetition. The Pranamayakosha is Vata in nature. In Ayurvedic Yoga Therapy, chapter 3, pg. 40-42, Stiles states, “Practices done on the first kosha generate sustaining health and well-being. Those practices of the second kosha generate feelings of vitality and healing.” Yoni Mudra is a Prana directing technique. Yoni is “source” and Mudra is “seal”. When pranayama is effective, Prana comes home. As relaxation increases, stress is decreased as is the experience of pain. Any attempt to bring Prana home is sadhana. Ideally, this is a practice that is sweetly devotional to the Self.

The goal of Structural Yoga Therapy is to develop a capacity to isolate muscular sensation in order to awaken the unconscious. Concentrating on one region and one specific motion at a time, increases awareness, from Structural Yoga Therapy, chapter 3, pg. 19. When Vata, as Consciousness, comes home, the Sattvic (balanced) state is restored so that wellness reigns and the human experience returns to spiritual foundations. Being entirely ready; absolutely willing, is moving into a state of grace, then the “Higher Power” can remove the obstacles to spiritual progress.

### **4 – Common body reading**

Rounded shoulders –TIGHT- pectoralis major, serratus anterior WEAK- lower and middle trapezius

High Right shoulder—TIGHT- right upper trapezius, levator scapula WEAK- lower trapezius, latissimus

Right arm forward—TIGHT- anterior deltoid, pectoralis(clavicular) WEAK-posterior deltoid, infraspinatus, middle trapezius

Tilted head, right—TIGHT- SCM, upper trapezius WEAK same muscles on opposing side

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

Any posture or activity that increases or stimulates a pain response is contraindicated and should be eliminated. Overhead arm movements that bring the shoulders into flexion should be eliminated as should neck rolls. Too many repetitions of a dynamic yoga pose or movement is contraindicated.

It is helpful to use stepping stools instead of reaching and using body mechanics that utilize the large muscles of the thighs while lifting. Being mindful to work from the center of gravity while carrying groceries, laundry, books etc., will help to protect the neck and shoulder muscles from improper use and strain. Carrying a smaller pocket book may also help decrease the chronic tension held in the neck and shoulders.

While driving in the car, it is important that the seat is positioned comfortably and that a lumbar and knee support is utilized. A neck pillow or support can be used while watching television or working at the computer.

## **6 – General recommendations for the condition**

### **a – Therapeutic/free of pain**

-- Study **Yoga Sutra II-46: Yoga pose is a steady and comfortable position** Mukunda Stiles, Yoga Sutras of Patanjali. **Yoga Sutra II-47: Yoga pose is mastered by relaxation of effort, lessening the tendency for restless breathing, and promoting an identification of oneself as living within the infinite breath of life.** **Yoga Sutra II- 48: From that perfection of yoga posture, duality, such as reacting to praise and criticism, ceases to be a disturbance.** To especially focus on reducing stress, **Yoga Sutra II-49: When this is acquired, pranayama naturally follows, with a cessation of the movements of inspiration and expiration,** from A study and practice of the above sutras will have the effect of balancing Vata, Pitta, and Kapha.

--Relaxing hot baths with rejuvenating mineral salts

--Frequent naps

-- Continue asana (as prescribed above) Cat pose, Sphinx, Sunbird, Child pose, Savasana with Yoni Mudra, Yoga Nidra to gently relax neck, and strengthen shoulders, middle and lower back

-- Yoni Mudra in Savasana utilizing the Wave Breath minimum of 10 minutes in a quiet place, free of distraction preferably at same time everyday

### **b – Stabilize situation including lifestyle recommendations**

-- Physical practice done in a devotional way is Yoga

-- Maintaining a practice especially in a time of disharmony is the essence of Sadhana

-- Relaxation calms an overly stressed system. Increase time spent with Yoni Mudra in savasana to minimum of 20 minutes a day as bedtime practice as a tool useful in bringing displaced Vata home thus promoting an effective night of sleep

-- Organic sesame oil (self) massage daily

-- Organic walnuts, almonds and sunflower seeds to replace crackers, cereals and other “drying” foods. Favor food that is warm, heavy, and oily

--Use journal writing techniques to refine ability to self-express while clarifying resolve toward self-care

--Singing out loud the words to favorite, uplifting songs and sounds

### **Maintenance and long term considerations**

-- Focus on **Yoga Sutra II-33: When you are disturbed by unwholesome negative thoughts or emotions, cultivation of their opposites promotes self-control and firmness in the precepts.**

-- Focus on **Yoga Sutra II-34: Negative thoughts and emotions are violent, in that they cause injury to yourself and others, regardless of whether they are performed by you, done by others, or you permit them to be done. They arise from greed(Kapha), anger(Pltta), or delusion(Vata) regardless of whether they arise from mild, moderate, or excessive emotional intensity. They result in endless misery and ignorance. Therefore, when you consistently cultivate the opposite thoughts and emotions, the unwholesome tendencies are gradually destroyed.** Above from Stiles, Yoga Sutras of Patanjali.

-- Apply Yoni Mudra to sacrum while in Savasana, index fingers pointing to coccyx

-- Pranayama for Pain “Make a strong resolution (sankalpa) to end pain. That force is the directing of the Divine Will” -M. Stiles. Technique two- Hatha Yoga Pradipika V, 9-11:

1. Breathe into the pain, send the breath into the pain and watch what happens.

2. Describe the pain to yourself (sharp, dull, hot, cold etc.) then breathe into the pain consistently. Imagine the center of the pain is a bull’s- eye, your breath is the bow, and your awareness the arrow. Inhale energy, then imagine that as you exhale, energy is spreading throughout the bull’s-eye. Exhale the breath but hold the pranic energy in that place so that it builds. Above from handout from Yoga Therapy Center, Mukunda Stiles.

-- Develop artistic endeavors

--Continue with psychotherapy and massage therapy

## **7 – Questions and answers on Yoga Therapy from www.yogaforums.com N/A**

## **8 – References and websites**

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[www.cranio rehab.com/patient/head-neck-cancer](http://www.cranio rehab.com/patient/head-neck-cancer)

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[www.medscape.com/difficulty](http://www.medscape.com/difficulty) swallowing, Trismus, osteoradio necrosis

[www.radiologyinfo.org](http://www.radiologyinfo.org)

**Handouts and Lecture Notes- Structural Yoga Therapy Training Course 2007-2008**

## 9 – Appendices

Taken to extreme, these misguided forces will create harm to others and ourselves. In the *Yoga Sūtras*, chapter two, the thirty-fourth sūtra defines the qualities of harm and shows how they are deeply rooted in our psyche.

II, 34  
*Negative thoughts and emotions  
 are violent  
 in that they cause injury  
 to yourself and others  
 regardless of whether  
 they are performed  
 by you,  
 done by others,  
 or you permit them to be done.  
 They arise from greed,  
 anger, or delusion  
 and are indulged in  
 with either mild,  
 moderate, or excessive  
 emotional intensity.  
 They result in  
 endless misery and ignorance,  
 therefore by constantly cultivating  
 the opposite thoughts and emotions  
 the unwholesome tendencies  
 are gradually destroyed.<sup>17</sup>*

The second sentence of this sūtra refers to the dosha qualities. Greed is imbalanced Kapha, anger is imbalanced Pitta and delusion is imbalanced Vata. The recommended therapy cited in the subsequent sūtras is cultivating positive attributes through affirmations and keeping good company. Each of the doshas has mental and emotional qualities that range from mildly stressful, to major eruptions in response to perceived threats and traumas. This stress is physiologically measurable whether the threats and traumas are real or imagined. Studies have shown that illness results from chronic perceptions of threat and the resultant overuse of the defense mechanisms of protection. The adage is that we can either fight, flight or freeze in response to stress. Fighting is a Pitta response, flight is a Vata response and freezing is a Kapha response.

### Balanced Attributes of the Doshas

#### Negative (Imbalanced) Attributes of the Doshas

Vata	Pitta	Kapha
Fear	Anger	Attachment
Confusion	Overly-vocal	Incommunicative
Ignorance	Neglect	Seeks authority figures
Spaciness	Criticism	Misdirected endeavors
Anxiety	Judgment	
Panic attack	Rage/Violence	

#### Positive (Balanced) Attributes of the Doshas

Vata	Pitta	Kapha
Clarity	Energy	Nurturing
Intuition	Discrimination	Well - organized
Creativity	Enthusiasm	Committed
Quickness	Vitality	Trustworthy
Ability to adapt	Ability to digest	Ability to reverse

#### The Three Doshas

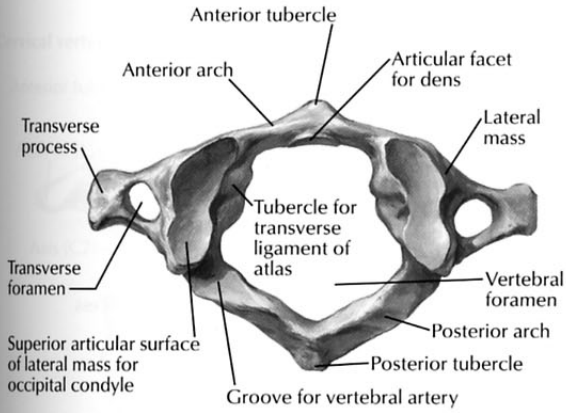
Dosha	Effect of Balance	Signs of Imbalance	Aggravating Factors
Vata	Exhilaration Mind clear and alert Rhythmic functioning of bowels and menstrual cycle Proper formation of all bodily tissues Sound sleep Vitality	Rough skin Weight change Anxiety Worry Constipation Joint instability Arthritis Hypertension	Overwork Accidents Suppression of urges Winter season Emotional Suppression or over expression Fasting Pungent, astringent and bitter tastes
Pitta	Lustrous complexion Contentment Perfect digestion Softness of body Digestive mechanisms Balanced Brilliant intellect	Yellowish complexion Excessive body heat Insufficient sleep Heartburn Weak digestion Peptic ulcer Critical	Anger Strong sunshine Summer season Burning sensations Fasting Pungent, sour, or salty foods



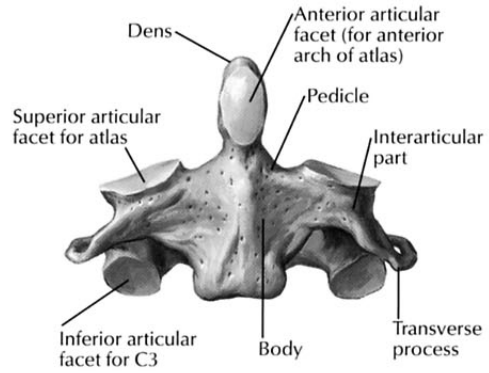
# Cervical Vertebrae: Atlas and Axis

1

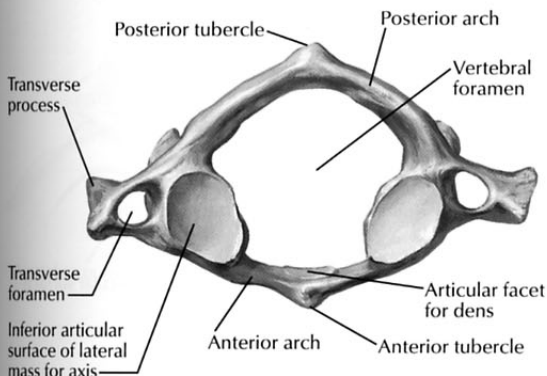
See also Plates 13, 153



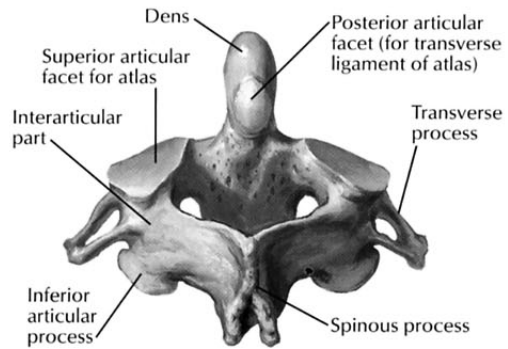
**Atlas (C1): superior view**



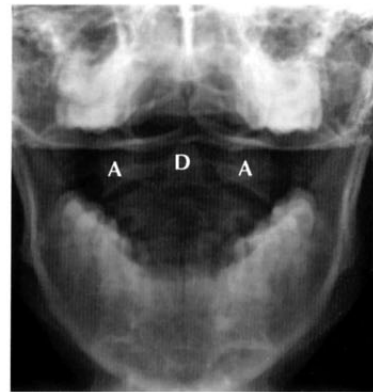
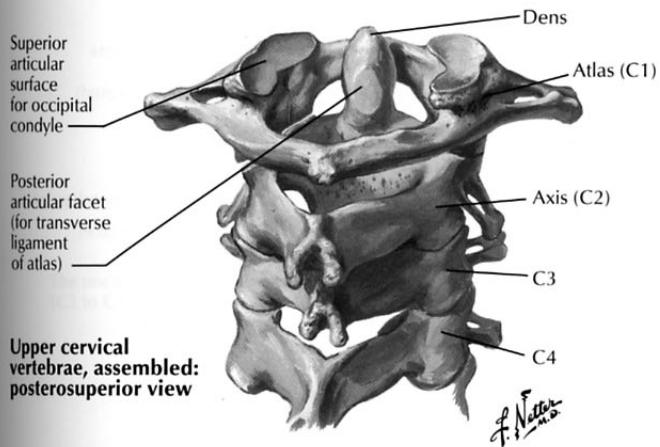
**Axis (C2): anterior view**



**Atlas (C1): inferior view**

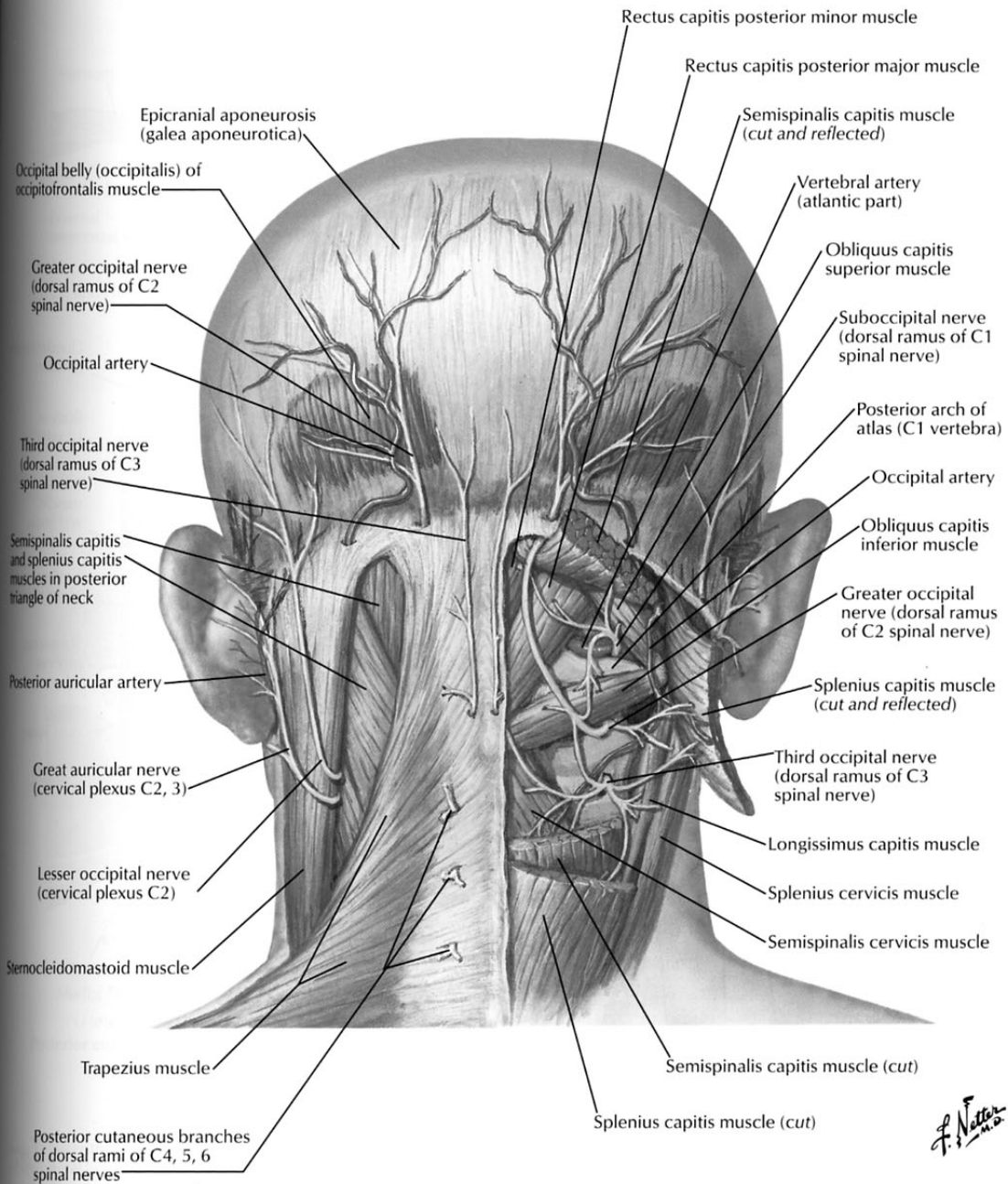


**Axis (C2): posterosuperior view**



**Radiograph of atlantoaxial joint (open mouth odontoid view)**

A Lateral masses of atlas (C1 vertebra)  
D Dens of axis (C2 vertebra)



## **10 – Biography**

**As a child growing up in southwest Ohio in the 60's, Isabella first became aware of yoga through the great Liliias Folan and her local PBS television program. Her child spirit immediately resonated with the quiet knowledge that the discipline of yoga led to an experience of the Divine. Isabella and her child spirit have been on the path ever since.**

**Isabella received her basic yoga teaching certification through Integral Yoga founded by Sri Swami Satchidananda Maharaj with blessing from his teacher, Master Sivananda of Rishikesh.**

**What draws Isabella to Structural Yoga Therapy and to learn from Mukunda Stiles, is that like Integral Yoga, dedication to the principles of loving-kindness toward the body and deep devotion to the Self allows for celebration of the fingerprint uniqueness of every person's yogic journey to the Truth. Mukunda's thorough grounding in his poetic and precious experience of the Yoga Sutras, inspires Isabella to meet people "where they are" while assisting them to move themselves forward toward their experience of the Divine.**

**Isabella is a registered nurse who looks forward to drawing on this wisdom and experience as she moves forward on her yoga journey through the discipline of Structural Yoga Therapy with a desire to engage others along the way.**