

Post-Operative Recovery for Thyroid Cancer

Understanding and Healing Post-Operative Thyroid Cancer with Structural Yoga Therapy

A research paper

By

**Denice R. McFarland
Castle Rock, Colorado**

dmcfarland62@hotmail.com

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I. CASE STUDY

A. Initial Intake

Margaret, a slender woman of 5' 6" is 49 years old. At the time of initial intake, her weight was 115 lbs. She is married, has 4 children of which only one is at home, an adolescent daughter. She is married and currently not working out of the home. Prior to her surgery she worked as a teacher in special education, teaching autistic and other types of mentally-disabled young children. She recently moved to Colorado from Boston where she lived for 13 years due to her husband's job change.

In August 2004, while living in Boston, Margaret was diagnosed with Adnoidcystic Thyroid Cancer, a rare and moderately-aggressive thyroid cancer. She underwent 7-hour throat surgery where her cancerous right thyroid was removed (partial thyroidectomy), including surrounding tissues. Since the cancer had spread to the surrounding tissues, post-surgery external-beam radiation treatments was performed (5 times per week for 6 weeks), as well as concurrent radiation-specialized chemotherapy. Since Margaret's thyroid cancer was relatively rare and could spread to other organs, her doctor recommended that after radiation treatments, she receive the standard 3-month chemotherapy recommended for breast cancer patients. She completed her chemotherapy in March, 2005. At date of my initial intake, (approximately one year after ending all treatment), Margaret received a clean bill-of-health from her doctors and was not under any professional medical treatments, except for thyroid-replacement hormone medication (Levothroid Synthroid), which she will take throughout her life. During our work together, Margaret also saw a voice specialist to strengthen the quality of her speech.

Due to the trauma of neck surgery and aggressive radiation, the muscle structure of the neck was greatly affected, as well as partial paralysis of the right vocal cord, affecting the quality of her voice. Limited neck range of motion (ROM) due to internal scar tissue and weakness in throat muscles inhibit Margaret from feeling like her previous self. When she moves her neck in certain positions, Margaret frequently coughs, which she finds annoying and disruptive. Periodically, Margaret must have scar tissue surgically removed from her esophagus, allowing her to eat with less restriction. Lastly, since the right vocal nerve was damaged (partial paralysis), her voice is raspy, as the vocal cord cannot completely close.

In addition to the tightness of her front neck, she had noticeable kyphosis, with her upper back excessively rounded. Margaret lost 13 lbs. during her ordeal, and has not been able to gain it back. She feels her weight is too low and would like to gain it back.

Management of daily synthetic thyroid dosage is frequently a challenge of post post-recovery patients. However, Margaret stated that thyroid-replacement medication has been relatively easy for her, not being affected by common symptoms of hypo- or hyperthyroidism. Except for the ability to gain 10 extra pounds to reach her pre-diagnosis body weight, her energy is relatively high, fluctuations in her body temperature are rare, her appetite is normal, and her heart-beat rate is well within normal range--all contra-

indicators of hypo- or hyperthyroidism. (Note: Margaret continues to have the left lobe of her gland still intact, theoretically able to naturally create some thyroid hormones.)

Margaret feels grateful to have survived her ordeal. She is patient, saying the healing process is “one step at a time,” and she is happy, in general, to feel so good. Margaret IS NOT experiencing chronic body pain related to her ordeal. However, she is very conscious of the scar tissue within her neck, describing it as an "elastic band" pulling within her. By the end of a normal day, she feels she must "fight" to keep her chin up, because it wants to pull downwards, toward her chest. In addition, she feels that her posture has been affected, closing in her chest, and “making her look down, instead of forward.”

At the beginning of structural yoga therapy, voice quality was not considered to be a primary motivation in our work together. However, it became apparent early in the process that energy work related to the breath and voice would help heal Margaret in many ways. After her first visit with the Voice Specialist, she was pleasantly surprised that her length of exhalation was very good--something she contributed to her yogic breath work. Further, her Voice Specialist encouraged her to continue with the pranayama breathing as set forth in her yoga therapy regime.

Margaret was anxious to incorporate yoga in her healing process. She felt that yoga therapy could help her “get back into her body.” Her personal objectives at the onset of our work included: increasing neck strength and ROM, limiting the downward-pulling effects of the scar tissue created by radiation and surgery; improve her posture by gaining strength in her upper body; and finally, improving her immune system through the holistic healing. Her comment: "Yoga feels good to me--like I'm moving forward and getting truly better."

Margaret noted that for the 5 years prior to her diagnosis, she taught disabled autistic children, whom were unable to speak. To help communicate to her students, she was required to speak excessively in an animated fashion. In addition, at the time of diagnosis, she had just completed a 2-year masters program, pushing herself daily after her normal job ended. Looking back, she feels these two events reduced her body's natural immune system allowing the cancer to grow in the area of excessive energy.

B. Physical Assessment

Postural assessment revealed mild kyphosis in the upper back and excessive internal shoulder rotation, with elbows bent most of the time. Her head appeared chronically tilted to the right. In addition, the right shoulder was visibly lifted higher than left. (Note: the right neck was the center of intensive surgery and radiation treatment. In addition, the right vocal cord is permanently partially paralyzed.)

Spine assessment revealed that the client has lumbar scoliosis, with a left 10 degree curvature in her lumbar spine. In addition, her right sacroiliac joint is not as mobile as her left. However, she has no pain associated with her scoliosis, and therefore, lumbar scoliosis was not addressed in our work together.

According to Mukunda Stiles, author of Structural Yoga Therapy, (page 103) the client's posture as revealed during the initial intake provides important insight as to possible tight and weak muscles. For example, based on the client's posture, as described above:

- Rounded shoulders reveals tight Pectorals and Serratus Anterior and weak middle and lower Trapezius and Latissimus Dorsi
- Tilted head reveals tight Sternocleidomastoid and upper Trapezius (on the side of tilt) and weak opposing-side muscles
- Kyphosis reveals tight Rectus Abdominis, Pectorals, upper Trapezius and weak thoracic Erector Spinae, middle and lower Trapezius.

The following 3 tables identify the client's body assessment using the methods defined by Structural Yoga Therapy® in the area of neck and shoulders before and after 3 months of yoga therapy. **Table 1a** identifies the Range of Motion of key upper-body movements; **Table 1b** identifies the strength of key muscles that move the neck and shoulder. Finally, **Table 1c** identifies the targeted muscles for strengthening and stretching. Therapy was conducted over a 3-month period, with the client performing the recommended treatment at least 4 times per week. Changes in ROM and muscle strength over the three months are identified in **bold**.

Table 1a

Range of Motion	Norm	4/4/06 Left Left Side	4/4/06 Right	6/15/06 Left	6/15/06 Right
Neck					
Flexion	45	25	25	25	30
Extension	55	25	25	30	40
Lateral Flexion	45	20	25	22	26
Rotation	70	50	55	60	65
Shoulder					
Horizontal Adduction	130	120	110	125	125
Horizontal Abduction	40	30	15	30	25

Flexion	180	150	165	170	165
External Rotation	90	90	95	90	95
Internal Rotation	80	50	60	70	80
Shoulder Extension	50	40	35	45	50

Table 1b

Muscle Testing	4/4/06 Left	4/4/06 Right	6/15/06 Left	6/15/06 Right
Spinal Muscles- Prone				
Lower Erector Spinae	4	4	4	4
Upper Erector Spinae	2	2	3	3
Neck Extension	3	3	3	3
Neck				
Flexion - Sternocleidomastoid	2	2	2	2
Extension – Upper Trapezius	2.5	2.5	2.5	2.5
Lateral Flexion - SCM, Upper Trapezius	* 2.5	2	2.5	2
Rotation - SCM, Upper Trapezius	1	1	2	2
Shoulder - Prone				
Middle Trapezius Isolation	3	3	4	4
Extensors - Latissimus, Teres Major, Triceps	2	2	3	3
Abductors - Post. Deltoid, M.Trapezius	2	2	3	3
Shoulder – Supine				
Adductors - Ant.Deltoid, Pectoralis, Biceps	2	2	3	3
Ex. Rotators - Post.Deltoid, Infraspinatus	2.5	2	3	3
Int. Rotators - Latissimus, Teres Major	2.5	* 2	3	3
Flexors - Deltoid, Pectoralis, Biceps	2	2.5	3	3
Latissimus Isolation	* 2	+ 2	3.5	3.5

*** Referral pain in right SCM origin**

As identified in the table above, the client felt frequent referral pain at origin of the right Sternocleidomastoid in the first session of muscle testing (4/4/06). Three months later, in the second session, the client experienced no referral pain.

+ Recruitment of Pectoralis/Anterior Deltoid

Weakness of Latissimus Dorsi was observed through immediate recruitment of non-primary movers. Three months later, the client was able to immediately engage Latissimus Dorsi with little recruitment of non-primary movers.

C. SUMMERY OF FINDINGS

Table 1c

Muscles to Strengthen	Muscles to Stretch
Sternocleidomastoid	Sternocleidomastoid
Middle Trapezius	Upper Trapezius
Pectoralis Major	Pectoralis Major
Posterior Deltoid	Anterior Deltoid
Latissimus Dorsi	Biceps Brachii
Infraspinatus	
Teres Major/Minor	

D. Recommendations

The client performed the following structural yoga therapy movements at least 4 times per week. Wave Breath was used throughout poses, unless noted. Organization of poses follows recommendations of SYT—first muscle isolation poses (as in JFS), followed by standing poses, and ending with pranamaya. In addition, as further explained in **6.)General Recommendations**, poses are primarily supine, with increased ground to body contact.

1. Cow/Childs

Description: With hands and knees on floor in classic table position, on inhale, raise head and contract shoulder blades towards spine and down towards hips, while limiting hip extension/lumbar curvature. On exhale, using Rectus Abdominis, round tailbone inward and slowly set weight of pelvis on heels, with arms stretched in front. Dynamic movement with breath for 10 repetitions.

Objective: Warm pelvis muscles and Rectus Abdominis, strengthening and stretching Erector Spinae.

2. **Snow Angels** (Asana name developed by author from who knows where!)

Description: On back with knees bent to help relax lumbar curvature, with the aid of a bolster and block, elevate pelvis, back and head 4 inches to help gravity open and stretch. Begin with arms near sides on floor, palms up. On inhalation move arms towards head, straight elbows and forearms touching ground whenever possible. On exhalation, gently pull hands towards hips, with elbows and forearms keeping contact with ground. Dynamic movement with breath coordination for 10 repetitions. With the aid of gravity, feel chest and arms open on inhalation and engagement of back muscles as arms move closer to hips.

Objective: More aggressive stretch of Pectoralis and Anterior Deltoid. Straight elbows encourage stretch of Biceps brachii and Brachioradialis. Strengthen Latissimus Dorsi and Middle Trapezius

3. **Neck Joint Freeing Series**

Description: Perform #19, 20, 21, 18 of the JFS, using breath in coordination with movement. Perform each movement 10 times. (Note: The spinal rotation JFS, #18, was moved out of sequence and to the end of this series so the neck would be sufficiently stretched and strengthened prior to a more aggressive spinal rotation movement.)

Objective: Increase ROM and strengthen, in isolation, Sternocleidomastoid and Upper Trapezius. Spinal rotation also used to strengthen/stretch Latissimus Dorsi and external/internal Abdominal Obliques.

4. **Vertical Push Ups**

Description: Standing up with elbows close to torso, put hands on wall, feet 12 inches away, slowly lean torso towards wall, move body towards and away from wall, keeping weight of fingers behind index and thumb to help encourage external shoulder rotation. Exhale as the chest comes into wall, stabilizing lower-back effort, inhale while pressing away, feeling chest expand and shoulders depress down.

Perform 20 repetitions.

Then move hands out, allowing elbows to move away from torso, isolating middle chest area (Pectoralis Major). Perform 20 repetitions.

Objective: Strengthen Pectoralis, Biceps, Anterior Deltoid, Posterior Deltoid and Triceps.

5. **Spinal Twist**

Description: Seated in classic Marichyasana, hug elbow to same-side bent knee, twist to one side (exhale), then back to neutral (inhale), and then to the opposite side (exhale). Move dynamically and slowly from neutral into twist, then back, for a count of 6, increasing ROM.

Objective: Strengthen Sternocleidomastoid, Upper Trapezius, Latissimus and Oblique stomach muscles, while stretching opposing paired muscle. Also, increase coordination of Sternocleidomastoid and opposing Upper Trapezius.

6. **Modified Locust** (ONLY PRONE POSITION IN SEQUENCE) (Option A)

Description: On stomach, with straight arms close to sides and towel under forehead to elevate neck (modification to accommodate tightness of SCM), lift arms off the ground and back, feeling shoulder blades pull down and neck lengthen. With dynamic movement, set arms down on ground and lifting them, for 10 times, then static movement, holding for 2 breaths at end.

Objective: Increase strength of Latissimus Dorsi, Posterior Deltoids and Middle Trapezius.

(Option B)

Description: On stomach, with towel under forehead to elevate neck (modification to accommodate tightness of SCM) and arms on sacrum, palms up, squeeze elbows together, feeling shoulder blades pull towards spine. Dynamic movement, contracting and releasing elbows for 10 times. Then static movement holding for 2 breaths at end

Objective: Increase strength of Middle and Lower Trapezius.

7. Modified Camel

Description: Kneeling spread knees wide apart, feet together. Reaching hands behind feet, using a bolster for added height, lift hips in rhythmic movement forward and to neutral, gradually lifting stomach and sternum. On the final movements, focus on lifting the "heart center" with back muscles on the opposite side. With weight of torso on arms, feel chest open. Dynamic movement for 10, then holding for 4 breaths at end.

Objective: Increase ROM of Pectoralis and Anterior Deltoid; Strengthen Posterior Deltoid and Infraspinatus.

8. Intercostal Breathing

Description: Sitting in simple position, place hands on ribs, letting fingertips touch at end of exhalation. Expand chest, encouraging sensation under arms and middle back. Feel movement of hands on the inhale and exhale

Objective: Increase tone of intercostals muscles, both below and above the rib carriage.

9. Kapalabhati Breath

Description: In a seated position, with Wave Breath before and after each series (3 total), forcefully exhale for a count of 30 exhalations at a slow and steady pace. Placement of hand on stomach may assist in feeling the Rectus Abdominis and Diaphragm pull inward.

Objective: Tone the diaphragm muscle and strengthen exhalation of breath.

E. Results of Recommendations

From the therapist's perspective, it can be concluded by both the data collected and positive comments from the client, that the yoga régime was highly effective in reducing kyphosis as well as increasing range of motion in both neck and shoulders. The following summary is the result of the client diligently performing the recommended sequence of asanas a minimum of 4 times per week for 3 months (April-June, 2006).

- Range of motion of 7 out of 8 neck movements was increased by approximately 20%, including right neck extension increase of 60% (from 25 degrees to 40 degrees) as well as a 20% increase in right neck flexion, left neck extension, and right and left neck rotation.
- Range of motion of over half of shoulder movements was increased by approximately 27%, with the largest increase in right horizontal abduction (60%) and left internal rotation (40%) and right shoulder extension (42%).
- Although objective in measurement, muscle strength tests identified that all shoulder movements were stronger, increasing a full point (eg. from 2 to 3). In addition, the client felt no referral pain in the right SCM during testing and recruitment of secondary movers was not observed.
- The strength of neck flexors and extensors did not increase (even though range of motion did). The author concludes that since these muscles were most affected by radiation and surgery, a longer time period may be needed to see strength results. Due to the invasive nature of treatment, this appears to be the “hot zone” of treatment and longer-term recovery is needed.

From the client's perspective, the following reflects changes in behaviors and attitudes:

- The client expressed the importance of the JFS neck openers. She performs them every day and incorporated the neck exercises immediately in her daily régime, helping counteract the scar tissue that has formed internally. She feels that she must perform these exercises every day for the rest of her life.
- During the first month of our work together, while Margaret was performing yoga in a supine position (on the back), a block was used under Margaret's neck to increase flexion (due to the excessive scar tissue in front neck). She felt tightness and discomfort in SCM with the head on the ground, and felt that neck extension aggravated the throat and encouraged coughing. After the first month, Margaret was able to perform supine exercises without the aid of the block, a milestone measurement for her.
- The following is a brief quote from the client after 3 months of yoga therapy:
“What started out as a way to help restore some mobility in my neck and increase my immunity turned into a transformation in so many ways. As my strength and flexibility increased so did my confidence and self-awareness. I could just feel my confidence increase as I held my head up. Yoga helped strengthen the physical body but it also has increased my spiritual awareness. Through meditation I have a greater sense of awareness of myself and of things around me. As my body continues to heal so to does my spirit. I am grateful for many people that have

come into my life since my diagnosis, and I feel so fortunate to have Denise work with me; I have come such long way since the morning I went to her class. The more I learn about yoga, the more that I realize what I don't know, and I look forward to continuing my practice so that I can continue to grow spiritually as well as improve my physical abilities."

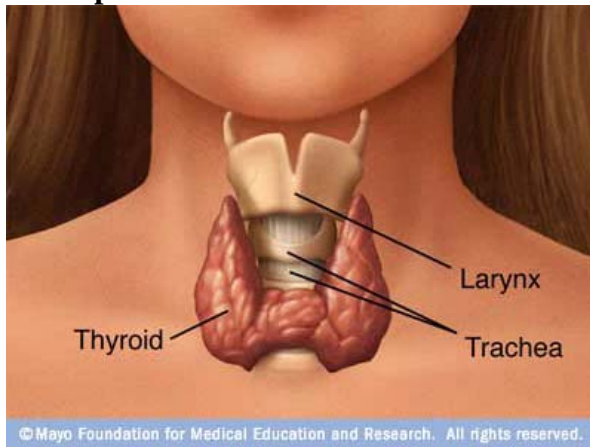
The thyroid gland is composed of two lobes that resemble the wings of a butterfly separated by a thin section of tissue called the isthmus. The thyroid takes up iodine from the food you eat and uses it to manufacture two main hormones, thyroxine (T-4) and triiodothyronine (T-3).

2. PHYSICAL BODY

A. Name and Description of Condition

In summary, as paraphrased from <http://www.MayoClinic.com>:

Description



“The thyroid gland is composed of two lobes that resemble the wings of a butterfly separated by a thin section of tissue called the isthmus. The thyroid takes up iodine from the food you eat and uses it to manufacture two main hormones, thyroxine (T-4) and triiodothyronine (T-3).

These hormones maintain the rate at which your body uses fats and carbohydrates, help control your body temperature, influence your heart rate and regulate the production of protein. Your thyroid gland also produces calcitonin, a hormone that regulates the amount of calcium in your blood. The thyroid gland is composed of 2 types of cells: follicle and parafollicular (“C” cells). The distinction is important because each type can give rise to different types of cancer.

Papillary and follicular cancers develop in follicle cells. They account for the great majority of thyroid cancers, can usually be completely removed with surgery and generally result in an excellent prognosis. Medullary cancer, on the other hand, arises in the thyroid's C cells and is generally more aggressive and harder to treat than papillary and follicular cancers are.

Treatment

According to <http://www.Mayoclinic.com>, “Surgery is the main treatment for most types of thyroid cancer, but other therapies may vary, depending on the type of thyroid cancer you have. **Now most experts agree that the optimal treatment is near-total thyroidectomy** — an operation that removes practically the entire thyroid with the exception of small rims of tissue around the parathyroid glands to reduce the risk of parathyroid damage”

However, according to another source (John Hopkins Medical at <http://www.hopkinsnet.jhu.edu>) “There is considerable debate among experts regarding when complete removal is appropriate. If only one side of the thyroid is affected, the other side is sometimes left in place, allowing the gland to remain functional. Viewed by many as the best surgical option, it does carry with it a small risk of complications, including harm to a nearby nerve, which can cause damage to the voice.”

Mayoclinic.com continues to say “After surgery, external beam radiation is frequently used to destroy cancer cells. A high-energy X-ray machine is used, where the cancer cells are targeted with a high dose of radiation for a few minutes at a time, usually five days a week, over the course of six to eight weeks. The goal is to destroy the cancer cells while minimizing damage to healthy tissue.

Radiation therapy damages cells by destroying the genetic material that controls how cells grow and divide. And while both healthy and cancerous cells are damaged by radiation, the goal of treatment is to hurt as few normal, healthy cells as possible. Radiation is much more harmful to cancer cells than it is to normal cells. This is because cancer cells divide more rapidly than do healthy cells. Cells are more vulnerable to damage when they're dividing, making cancer cells more susceptible to radiation than normal cells are. In addition, normal cells can recover from the effects of radiation more easily than cancer cells can. Most side effects are temporary, can be controlled and generally disappear over time once treatment has ended.”

B. Gross and Subtle Body Common Symptoms

The gross body (Annamaya Kosha) is defined as the flesh and bones we call our “bodies” and is typically in line with the science of western medicine in defining and treating medical conditions. Explained in detail in the following paragraphs, gross body common symptoms may include throat sensitivity due to internal scar-tissue, imbalances in body rhythms due to synthetic hormone fluctuations, and kyphosis due to the need to protect the center of emotional and physical trauma.

1.) Throat sensitivity is a common symptom of post-operative thyroid patients. Due to surgery, the individual may have some degree of scar tissue at the incision point and internally, where the thyroid was removed. The individual may not easily tolerate any clothing or jewelry near the neck.

Because Margaret's thyroid cancer was more invasive than most, her symptoms are more acute. Surgery, lasting 7 hours, has left their toll in the form of internal scar tissue which pulls the chin down. Scar tissue has needed to be removed from inside the esophagus to helping remove the sensation of obstruction during eating and drinking. As further defined in **C. Related Challenges**, scar tissue sensations in the neck are both a symptom and an on-going challenge.

2.) Imbalances in body rhythms frequently affect the gross body after the thyroid is removed. Synthetic thyroid-related hormones taken daily by the client throws the internal body clock off and can drastically affect many body functions. Too much hormone can cause unintended weight loss, heart palpitations, tremors, osteoporosis and frequent bowel movements. Too little may lead to weight gain, sensitivity to cold, and dry skin and hair. Until the optimal dosage is found, the individual must deal with these uncomfortable sensations.

3.) Closing in of the chest and neck can be a symptom of post-recovery thyroid cancer, as well as excessive tilting of the head, especially if surgery is extensive. Although inconclusive, excessive shoulder rotation and sunken chest could be seen as an automatic response to protect the point of trauma. Association of past pain and memories of vulnerability may persist in the throat area for some time, increasing the need for added skeletal protection, closing the body inward at the neck and chest. Scar tissue, depending upon the degree of surgery performed, can continue the bodily sensations of tenderness and vulnerability, encouraging skeletal protection from the trauma, resulting in kyphosis.

The subtle body (Pranamaya Kosha) is defined as *“the body sheath made up of energy channels called nadis, which terminate in spinning energy centers called Chakras...The energy flowing through these channels is sensory input from the five gross senses and subtler senses associated with the mind”* (Structural Yoga Therapy, page 43,44) Although not visible to the eye, the vitality of subtle body energy helps determine the health of the physical body. For post-operative thyroid patients, subtle body common symptoms may include decreased energy of the throat chakra and reduction of udana prana.

1.) The throat chakra, the 5th energy center (Visuddha) is the center of communication, both in speech, as well as hearing and listening. Its energy governs the entire throat, including vocal cords, thyroid gland, parathyroid gland, mouth, trachea, esophagus ears, and cervical spine.

Thyroid cancer occurs directly in the throat chakra, and traumatic treatment of surgery and radiation continued to violate the energy center. Therefore, yoga therapy should offer the use of sound to “clear” the energy in the neck. According to Brenda Davies,

author of The 7 Healing Chakras, listening and creating high-vibration sounds is a key component in helping clear the throat chakra. Her recommendations include:

- Saying words of gratitude on a daily basis
- Listening to specific sounds such as chimes, inspirational music and the sounds of nature as part of the meditation process
- Writing as a way of exploring ones truths and desires, and creating affirmations
- Chanting or singing as a means of using the voice in a sacred way and shifting the energy of the throat.

If surgery has injured the vocal cord in any way, vocal exercises will typically be encouraged by any speech and vocal specialist. Sound resonance, depth and quality of exhalation are magically improved with the gift of voice. As defined in **Appendix A** and **C**, mantras, chanting and singing, provide a wonderful approach to clearing throat energy and lifting it in sound.

2. Udana prana, defined as the outward and upward movement of air in the body, may be affected after throat surgery and treatment. According to David Frawley, “*Udana is the vital energy in the throat that governs speech and self-expression and holds the head up through the neck.*” *It governs the growth of the body, including effort, enthusiasm and will.* (David Frawley, Yoga & Ayurveda P. 124) For post-operative thyroid cancer, the need to strengthen udana prana (outward and upward movement) will greatly help in the healing process. Pranayama of any kind is beneficial, as well as expressing oneself in written or oral voice, as further explained in **Appendix B**.

In addition, due to the client’s postural kyphosis (excessive curvature of the spine), the lungs are restricted and cannot expand and contract fully, further affecting udana prana. Therefore, a component of Margaret’s yoga therapy helped increase Udana Prana through breath work both during asanas (wave breath/pranayama) and chanting.

C. Related Challenges

The management of fear is always a challenge for any cancer patient. Often coping with thoughts of ongoing sickness and possible mortality is the major challenge of post-operative cancer of any kind. Years after treatment, the client must be diligent in periodic reviews of blood chemistry and ultrasounds, helping ensure the cancer have been eradicated. As time passes, the risk of cancer-relapse does as well.

However, few cancer patients completely let go of these deep-seated emotions related to their own mortality and painful memories of sickness. In best circumstances, these feelings are shown as gratitude and joy; in worst, they are shown as fear and darkness. Periodic health checks can create an environment of uncertainty as to the individual’s future and well-being, easily creating vata-derangement. The mountain of symptoms resulting from vata-derangement is endless and typically has noticeable and long-term effects on the physical body, including loss of appetite, insomnia, lethargy and excessive/limited emotional detachment.

Because of the periodic checking which post-recovery thyroid patients must contend with, it can be concluded that the client must learn how to handle their mortality-based

fear for the rest of their lives so that vata-derangement does not occur and affect their physical body.

Continued throat sensitivity and sensations of internal scar tissue is also a challenge in post-operative thyroid cancer. Interestingly, it is common that individuals cannot tolerate clothing or jewelry around their throat. Because Margaret's thyroid cancer was more aggressive than typical, her internal scar tissue is quite prevalent. She understands that she must perform the neck joint opening series (developed by Mukunda Stiles) every day for the rest of her life to help the mobility of her neck muscles and keep scar tissue pliable. Depending on the extent of scar tissue, long-term healing of the neck must occur; this can be accomplished through both structural (gross body) and spiritual (subtle body) yogic paths.

3. AYURVEDIC ASSESSMENT

“The main rule of ayurvedic treatment is to prevent any of the doshas from becoming too high because in excess they cause disease...This is achieved through following the right diet, herbs, exercise, and meditation that counter doshic proclivities ”
(David Frawley, Yoga and Ayurveda, page 88)

Cancer is a kapha-based condition, according to Ayurveda, the sister-science to Yoga. Any form of mass in the body is considered earth/water based. Overproduction of cells resulting in tumors, mucus, fat, liquid are all classified as kapha-based imbalances.

Ojas is the heart of immunity, fighting off disease. Cancerous growth is in very simple terms, an abnormal rate of cell formulation--a human cell mutates and becomes destructive to the cells around it. The body's natural immune system, for some reason, is unable to fight it off and keep its growth in check. Therefore, according to ayurvedic theory, balancing kapha and increasing “ojas” are two key elements of treatment in cancer-based conditions.

Balancing kapha is accomplished through

- Increasing Udana Prana, or the outward, upward movement of the breath
- Performing spiritual or heart-opening practices that generate feelings of love, joy and connection to community
- Connecting to the land through daily walks, gardening, outdoor sports, etc.
- Performing body strength and stamina poses to help detoxify

(Ayurveda Yoga Therapy for Kapha, M. Stiles; unpublished)

Increasing Ojas, although complex in idea, can be increased through:

- Strong relationships between loved ones and family
- Being present in the “Now” and surrendering to all that comes with it
- Meditating and allowing the mind to become quiet
- Control of senses through the practice of pratyahara, reducing the energy lost through sensory input

- Control of sexual activity in men (ojas is concentrated in semen and is thought to be depleted upon ejaculation.)
 - Increase sexual activity in women
 - Right vegetarian diet full of whole grains, seeds and nuts, oils, root vegetables and natural sugar
 - Herbs such as ginseng and ashwagandha
- (Textbook of Ayurveda, page 213-219; Yoga and Ayurveda, page 95-97)
(Tantra, The Cult of the Feminine)

As written by Mukunda Stiles (<http://www.yogaforums.com>; January 11, 2003)
“Cancer is a kapha condition that should have been dealt with much sooner. Signs were there but person did not want to hear them. Consider Ayurvedic point of view that all forms of cancer are due to stopping the openness of the heart and the chain of events that follows from that. This includes too much comfort foods, laziness (increase of tamasic behavior), increase of stagnation and mucous, not enough exercise, not enough hugs, and not allowing breath to be fully flowing through all the chakras resulting in not feeling all of your feelings, thoughts, and desires. ...Sometime, but not always, physical illness, like cancer, can have an emotional/psychological component. There is no blame in that statement”

Balancing vata is of concern during the traumatic ordeal of diagnosis and treatment. Whenever there is illness and stress, vata, the most unstable of the 3 energies, moves easily out of balance. Therefore, the need to balance vata is a primary requirement as well. Vata-balancing includes:

- Meditation, either walking or sitting
- Pranayama, or breath exercises
- Therapeutic movements of the body coordinated with the breath
- Warm bodily treatments such as hot baths, steams and massage
- Stability in daily schedules, including timing and consistency in activities

4. COMMON BODY READING

Sensitivity in the throat area appears to be a common body reading for those individuals healing from thyroid cancer. Surgery and scar tissue has left the neck more venerable to sensations caused by clothing and jewelry.

Tight Pectoralis and excessive shoulder internal rotation and its relationship to post-recovery thyroid cancer was not documented in allopathic medicine reviewed by the author. Scientific text states that after surgery, the majority of individuals fully recover with no physical body ramifications (except those associated with management of synthetic thyroid levels which include unintended weight gain/loss, heart palpitations, tremors, osteoporosis and frequent bowel movements, sensitivity to cold, and dry skin and hair.)

It can be logically seen how pectoral tightening and shoulder internal rotation may be a reflex from physical and emotion trauma. Positioning the body in this way may be the

need to unintentionally protect the throat. If the individual appears to protecting their neck through body posture, common tight and weak muscles include :

Tight Muscles

Rectus Abdominis
Upper Trapezius
Pectoralis

Weak Muscles

Thoracic Erector Spinae
Middle/Lower Trapezius
Latissimus Dorsi

5. CONTRA-INDICATED YOGA PRACTICES AND GENERAL ACTIVITIES

The author was unable to identify any physical activities as contraindicated for post-recovery thyroid cancer. Numerous articles and web sights were reviewed, explaining post-recovery concerns, and none of them mentioned any contra-indicated exercises or activities. (See **8. REFERENCES** for a complete listing of sources used by the author.)

Although not documented, compression of the neck could be seen as a contra-indicated movement. Because neck compression stimulates the thyroid gland, these movements could possibly stimulate the growth of any remaining thyroid cells, possibly encouraging cancerous activity. In addition, stimulation of the thyroid (if partially intact) could imbalance the hormone levels within the individual. Since an ongoing challenge in post-recovery patients is management of thyroid levels, it may be concluded that poses that stimulate the throat should be approached with caution. However, it can also be argued that increasing naturally-producing thyroid hormones through yoga is indeed beneficial; synthetic medication may be reduced, being supplemented by naturally-produced hormone.

Yoga poses that stimulate the thyroid include all movement that systematically compress the neck, followed by movements that open the neck. For example shoulder stand, followed by fish pose, and could affect hormone levels, for those individuals with partial thyroid still intact.

6. GENERAL RECOMMENDATIONS

A. Therapeutic/Free of Pain

During the first phase of recovery, helping heal the body of cancer is the focus. As described previously, cancer is kapha-based imbalance. According to M. Stiles, “*excess kapha is best expelled up and outward through Udana Prana.*” (Unpublished Ayurvedic Manuscript) Further, Vasant Lad states “*Udana vayu is located in the diaphragm and moves upward through the lungs, bronchi, trachea, and throat. It governs the movement of the diaphragm and intercostals muscles, and helps in the process of exhalation.*” (Textbook of Ayurveda, page 50)

Therefore, during the preliminary few months of post-operative thyroid cancer while recovering from surgery and radiation, the client may work gently with the breath,

specifically Intercostal, Diaphragmatic/Abdominal Breath, and finally the Wave breath. In addition the Joint Freeing Series can help stabilize vata during this traumatic initial period

1.) Intercostal Breathing focuses on expansion and contraction of the rib cage exclusively, feeling the ribs broaden with inhalation and narrow with exhalation. Movement of the ribs under the arm and back is encouraged, toning the muscles between each rib and internally between the lungs and chest cavity. To emphasize the movement, put the hands on the lower ribs, fingers pointing to the midline. Feel the fingertips come together when exhaling and move apart when inhaling. Intercostal Breathing is more vigorous and energetic, therefore cannot be performed for long periods of time, as can Wave Breath.

2.) Diaphragmatic/abdominal breathing is defined as the downward movement of the diaphragm during the inhalation (causing the belly to relax) and a gentle contraction of the abdominal muscles during the exhalation. Breathing with the focus on the stomach and diaphragm for 2 to 10 minutes activates the parasympathetic nervous system, reducing blood pressure, slowing the heartbeat and reduces stress.

3.) Wave Breath builds upon the sensations of diaphragmatic/abdominal breath and adds the mindful movement of the chest and rib cage in addition to the diaphragm and abdominal muscles. The even motion of all three parts--chest, rib cage and abdomen--is the key to the wave breath, with equilibrium between inhalation and exhalation as well. There is NO pause or “kumbaka” in the breath and the breath is silent, with no guttural sound as familiar with ujjaye breath. Wave breath is extremely healing and therapeutic.

4.) The Joint Freeing Series, helping balance vata (as developed by M.Stiles), uses the Wave Breath and joint-specific physical movements to help stabilize vata during the initial post-surgery phase when the effects of trauma are most intense. Vata derangement and trauma are frequently correlated; therefore a vata stabilizing practice of therapeutic movements coordinated with breath will help ease the sensations of fear and paranoia and help increase prana through gentle use of the air to invigorate the lungs. Further, although care should be taken while moving the neck (movements 18--21) the other joint opening movements will provide many beneficial effects to both the gross and subtle bodies.

B. Stabilize Situation

1.) Counteract the “closing inward” of the neck and help open the chest and strengthen the back. After the initial hypersensitivity period of post-recovery, the client will eventually feel more accepting of yoga poses which impact the neck, shoulders and chest. The structural recommendations, as presented in this paper (**2D**).

Recommendations) is an ideal program to help during the stabilization stage. In summary, the back should be actively strengthened, the chest actively stretched and the neck *encouraged* to move in full range of motion.

2.) Keep the client on the floor, safe and supported. According to Zoe Kowalchuk (Certified Yoga Therapist and cancer survivor), “keeping the client on the floor, safe and supported will help the feeling of connection with the earth. Further, she recommends that the exercises be face up (supine), rather than down (prone) and to the ground, closing in.”

3.) Balance vata through rhythmic therapy, using the breath to initiate contraction and relaxation.

4.) Explore the use of chanting to help create healing sound vibrations throughout the neck and head. As defined in *Appendix A-1*, Gary Kraftsow in Yoga for Transformation recommends chanting specific mantras (“ham” “am” and “om”) to help create sound vibration throughout the neck and head area. Chanting is extremely beneficial for increasing udana prana and help clear energies of the throat.

C. Maintenance/Long Term Considerations

1.) Encourage daily neck range of motion through the Joint Freeing Series 18 through 21. Mobility of the neck is of high importance dependent on the extent of scar tissue and muscle damage.

2.) Stimulate udana prana and body immunity. Although not appropriate during the initial months of post-operative care due to extensive emphasis of neck placement, these asanas bring up udana prana and increase ojas, or the immune-boosting powers within the body.

- Shoulder stand
- Cobra pose
- Camel pose
- Bridge pose

3.) A vata-balancing yoga-practice helps manage fear of reoccurring cancer and mortality. Vata-balancing practice has the following characteristics:

- Not holding poses excessively (using movement as part of pose)
- Performing more back-bends than forward-bends
- Poses that focus on the pelvis area, the home of vata
- Poses therapeutic in nature, gently opening and relaxing

7. QUESTIONS AND ANSWERS FROM YOGA FORUMS

Nov 18, 2002 Post subject: Thyroid

Q-I am stuck, I searched around the Internet before emailing you but I was unsuccessful. Although, I think, I finally understand what I am trying to ask! My friend has a "borderline high" thyroid. Her pituitary gland (T3?) Is at 6.51 (high) and the T4 (Hypothalamus)? Is at 1.9 (low). Does this make sense? Is the Pituitary also known at the T3? Hypothalamus, T4? Should we be doing Shoulderstand? What postures should be done to help stabilize her condition. The truth is, I also need a little info on the scientific angle of the Endocrine system in your words, I have a basic understanding, but scientific explanations I have been reading are way over my head! Help! Thank you so much!

A- A comment from an RN I consulted on your data - The information is confusing. T4 is the level of thyroxin and T3 is the level of triiodothyronine. Usually both are up rather than one up and one down. I don't know where she got the Pituitary & Hypothalamus numbers. I don't think she needs to research it medically, do you?

Should you wish to understand this scientifically you will need either a good scientific training or scientist medical person who is willing to take the time to explain it to you. I find that only medical people can understand such language and if you want medical training so that Yoga can be useful in this worldview then pursue it. To my way of thinking only a person trained as Joan Borysenko, Ph.D., in psychoneuroimmunology and trained by me and others as a yogini could overlap these two worlds. For most people I recommend learning more about Yoga and Ayurveda as there is much more advanced training relevant to yogic worldview of the causes of suffering.

Since I am not trained as a medical technician or specialist such information is rarely helpful to me, except as a pointer of where to look in my own way. My analysis is based on an assessment of the physical body - flexibility, strength, posture; and subtle bodyreading of the 5 pranas, Ayurvedic dosha analysis of the pulse, and other factors from my spiritual training. Without this I rely on accurate verbal commentary and my intuitive gifts.

The major practice I would recommend without seeing the client is half Shoulderstand (more correctly called Viparita Karani Mudra) as is shown in my book, Structural Yoga Therapy. Preparation is needed by doing cat bows (pushups), bridge, and upward legs in that order. Follow-up pose is abdominal twist lying. The sequence is given in my book. Every practice is to be done as long as she can tolerate and counting breaths so that regularity could be established. After 2-3 weeks a difference will be clearly felt. If she were to consult me directly I could be giving much more accurate analysis and recommendations.

Apr 26, 2002 Post subject: Thyroid

Q-A question for you. One of my yoga students has an over active thyroid. Are there any poses that would help bring her system into balance?

A-Thyroid is said to respond to Shoulderstand and variations. However to my

knowledge, there are no scientific studies to document the true benefits. There is much subjective guesswork in terms of benefits to the endocrine system in general. And energetically it does seem quite likely to me that this is true.

Apr 24, 2002 Post subject: Thyroid

Q-Recently I read an article citing several poses that were good for banishing fatigue but not if a person has a hyperactive thyroid condition. The person I am seeking help for is a mid-40's menopausal woman, 2+ years of regular yoga practice, seemingly overall healthy habits, 'active' thyroid nodule diagnosed from iodine uptake study. The poses included warrior 1 and camel. What are your cautions for people with this condition?

A-Precautions would be not to encourage the woman to do what her intuition tells her not to do. Intuition is needed to be strengthened and fast paced practice or heating poses (holding backbends over 4 breaths, Bikram, Hot or Ashtanga Yoga) would be ill advised. The poses mentioned should be fine done briefly. In this condition it is recommended that the woman practice Jalandhara bandha (neck lock) during forward bending postures such as Janu Sirsasana (head to knee), Paschimottanasana (seated forward bend), Uttanasana (standing forward bend) but not in inverted poses as Setubandhasana (bridge) and Sarvangasana (Shoulderstand). However, Jalandhara and other bandhas can only be taught by someone who does them regularly in their own practice. One needs to know from personal experience how the bandhas affect heart rate and change circulatory flow to the endocrine glands.

Aug 9, 2004 Post subject: Thyroid

Q-I have a hyperthyroid due to taking the drug interferon. I realize this is not suppose to be a true autoimmune disorder, but a temporary condition. I has been 1 1/2 years since quit that drug and have been having some real problems for the past 6 months. My eyelids swell, and sometimes I cannot focus, or it is very difficult. I would like to wait this out a little longer, before having my thyroid nuked. Is there anything that yoga can do for the eye problem, or the thyroid in general? I suspect that my thyroid function is really fluctuating some, as I have gained 15 lbs in the past several months.

A-Research on Yoga Therapy is sketchy but for details I would recommend you consult mail@yec.com and see what information the Yoga Research and Education Center has in their archives. One should definitely do the normal recommended yoga program for hyper and hypo thyroid conditions which is to prolong your shoulderstand until you can maintain it for 10 minutes. The counter pose should also be extended until it is 5 minutes. Normally this is fish but it can also be a gentle cobra or the lying twist Jathara Parivartanasana. I have a friend with this bulging eye symptom from her hyperthyroid condition and to my knowledge there is nothing natural that seems to make a difference. Although she says that what she is doing with affirmations and energetic work is making a difference in terms of the pressure in the eyese, there is no visible outward change from her friends point of view.

Feb 15, 2004 Post subject: Cancer

Q-I've been doing yoga for almost 4 months and recently a friend ask me such a question. Let's say, if a person has cancer but do not know about it, will doing yoga quicken the spread of cancer cells? In other words, will doing yoga endanger the person who is suffering from cancer?

A-I don't think yoga can hurt you or aggravate cancer...but listen to your own body. I do counseling for cancer patients. There are many aspects to yoga. Meditation, which is part of yoga, can be very helpful to those who are ill. Sometime, but not always, physical illness, like cancer, can have an emotional/psychological component. There is no blame in that statement.

Jan 11, 2003 Post subject: Cancer

Q-I have an other question concerning Hodgkin's lymphoma. Can yoga help? Patient is 40 years old man, otherwise fit, and no yoga experience. I really hope to see you in Toronto or next summer for a workshop.

A-I don't know of anyone who cannot benefit from yoga. Especially rogis (sick people), many of whom were first bhogis (overly sensually indulgent), before they now are considering becoming yogis (one who overcomes all difficulties and becomes a hero in their life). Consider Ayurvedic point of view that all forms of cancer are due to stopping the openness of the heart and the chain of events that follows from that. This includes too much comfort foods, laziness (increase of tamasic behavior), increase of stagnation and mucous, not enough exercise, not enough hugs, and not allowing breath to be fully flowing through all the chakras resulting in not feeling all of your feelings, thoughts, and desires. Just give yoga don't worry about specific condition you are addressing. When you share your openness and love no one cares about your credentials. That is more important than all else and getting training from someone experienced in working with cancers, like Jnani Chapman at Commonweal in California is a great idea. Experience with yoga and specific conditions can certainly boost the self-confidence of the yogini. Blessings on your sharing your yoga. Mukunda

Sept 26, 2002 Post subject: Cancer

Q-A little question to which I am sure there is a big answer, but would like to hear any suggestions to help my friend's mother who was originally diagnosed with brain tumor. Had surgery 1 month ago and removed a 3cm tumor from the left Parietal/Occipital lobe. Further research revealed a much larger tumor in the right lung, carcinoma nonsmoker. She is doing restorative postures once a week. What pranayama and meditation practices would you suggest to assist whatever direction her spirit is taking? Thank you as always. You give me a wonderful example to follow in your path of Karma Yoga.

A-For cancer my recommendations are to be as loving as possible and do what is nurturing to Spirit. Yoga also is done in this way to connect to Spirit and open to the

Divine, which is the source of all that is needed. Pranayama to feel the prana - read and contemplate the Yoga Sutras on this - chapter II, 50-53. Begin to direct your mind to feel the experience of what is talked about there and great peace can come. For Asana practice mainly I would recommend that which enhances immune system - gentle flowing vinyasas as variations on inverted poses - bridge, knees to chest, legs up, half Shoulderstand ideally moving more into Viparita Karani than Shoulderstand. Connecting with the energetic benefits of practices has the most nourishment of ojas. Ojas is the physical embodiment of spiritual nutrition. It is stimulated by certain foods - dates, figs, ghee, coconut, Honey, and dairy from well loved cows - take about 1/2- full cup of these daily. It is also generated by hugs, and loving kindness to your self. So remedy is lots of love and Spirit connections.

April 24, 2002 Post subject: Cancer

Q-Do you have any recommendations for people undergoing Chemotherapy and radiation? Thank you

A-For those persons see posting of last two weeks on Cancer and also emphasize practices that stimulate the immune system. Among these are Kapalabhati satkarma (the Kriya cleansing version not the pranayama), Agnisar dhouti (also a Kriya), restorative supported poses from Iyengar Yoga (particularly supported bridge and half Shoulderstand), and plenty of loving attention by their mind and all those around them. Contact John MacEnulty at eman8tions@aol.com for the story he just put out today on his personal experience of becoming free of **cancer**. A beautiful story of love manifesting as healing. John sends out daily uplifting comments by free subscriptions.

April 24, 2002 Post subject: Cancer

Q-I would like to know about Yoga for the Cancer Patients. Is there are any contraindications? What Asanas are best for them?

A-Are you facing this yourself or is it a theoretical question? Best is if i am given specifics about person involved. As all conditions are personal not general. Cancer affects us all, so the variety of ways this person is experiencing it must be understood. How is the mind? What is the fear? What is the benefit? These must be reflected upon. Therapists need to be compassionate to work with this situation. By that I mean both comprehending the seriousness and also be willing and knowledgeable of how to demand lifestyle changes in the extreme. Otherwise nothing will happen. Cancer is a kapha condition that should have been dealt with much sooner. Signs were there but person did not want to hear them. Yoga Research and Education Center maintains an extensive series of articles including a **cancer** bibliography at <http://www.iayt.org/biblio.asp>.

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Web Sites

<http://www.Mayoclinic.com/> Medical information on numerous topics including sections for diseases & conditions, drugs & supplements, treatment decisions, healthy living and ask a specialist

<http://test.aace.com/pub/press/releases/2001/> American Association of Clinical Endocrinologists define symptoms of thyroid cancer, as well as thyroid cancer facts and additional thyroid-related information.

<http://www.hopkinsmedicine.org> John Hopkins University website for information about patient care, healthcare, research and education. Specific alternatives regarding thyroid surgery were obtained.

<http://www.thyroid.org/> American Thyroid Association published information regarding effects of thyroid surgery including symptoms of hyper/hypothyroidism were discussed.

<http://www.cancer.org/> American Cancer Society website for information regarding thyroid cancer, including diagnosis, surgery and post-operative care.

<http://www.yogaforums.com/> Question and answer format on various yogic topics.
Mukunda Stiles

Personal Contacts:

Zoe Kowalchuk, Certified Structural Yoga Therapist, Mentor
Telephone conversations, interview and email

Cary Twomey, Ayurvedic Consultant
Interview

9. APPENDIX

A) Healing of the Subtle Body

Healing of the subtle body, specifically the pranamaya kosha, include breath work and chanting. In addition, due to the client's desire to increase voice quality and sound resonance, incorporating yogic voice work in the form of chanting appeared logical to pursue.

As recommended by Gary Kraftsow in Yoga for Transformation, the following chanting series encourages using mantras to create sound vibration throughout the neck and head area. However, modifications to Kraftsow's work was made to slow the practice down, encouraging Margaret to incorporate mindful sound resonance in the mouth as well as long and full exhalation (a noted difficulty in her speech delivery).

Chanting

Incorporate chanting through the use of repetitive syllables during her seated practice as a form of meditation. As recommended by Gary Kraftsow in Yoga for Transformation, the following chanting series encourages using mantras to create sound vibration throughout the neck and head area. However, modifications to Kraftsow's work was made to lengthen the sound of each vowel, encouraging Margaret to incorporate mindful sound resonance in the mouth (a "buzzing" sound in the teeth) as well as long and full exhalation (a noted difficulty in her speech delivery).

Objective: Increase the length of the exhalation during sound creation, strengthen diaphragm breathing, incorporate specific vocal exercises as recommended by the Client's voice therapist and finally, increase vibration to the 5th, 6th and 7th chakra energy centers.

- A. In seated position (Siddhasana), chant "**ham**" on the exhalation. On the first exhalation, chant the mantra once becoming familiar with it's "taste" in the mouth and the physical movements required to create the sound. On exhalation 2-6, chant the mantra twice in a single exhalation. End the practice repeating the mantra a single time, giving full awareness to the length of the exhalation, the sound quality of each syllable and the resonating effects of the mantra to the neck/head area.
 - Feel the back of the throat on the rough "**h**" sound

- Let the jaw drop on the “a” sound
 - Close the jaw at the end of the mantra, feeling the vibration of the “m” resonate in teeth and lips. (Number: 8 in total times)
- B. In seated position, rest with awareness in Communication Center (visuddhi) for some time, envisioning a circle in the throat area.
- C. In seated position (Siddhasana) chant “am” on the exhalation. On the first exhalation, chant the mantra once becoming familiar with it’s “taste“ in the mouth and the physical movements required to create the sound. On exhalation 2-6, chant the mantra twice in a single exhalation. End the practice repeating the mantra a single time, giving full awareness to the length of the exhalation, the sound quality of each syllable and the resonating effects of the mantra to the neck/head area.
- Let the jaw drop on the “a” sound
 - Close the jaw at the end of the mantra, feeling the vibration of the “m” resonate in teeth and lips. (Number: 8 in total times)
- D. In seated position, rest with awareness in the 3rd eye center - 6th chakra (ajna) for some time.
- E. In seated position (Siddhasana) chant “om” on the exhalation. On the first exhalation, chant the mantra once becoming familiar with it’s “taste“ in the mouth and the physical movements required to create the sound. On exhalation 2-6, chant the mantra twice in a single exhalation. End the practice repeating the mantra a single time, giving full awareness to the length of the exhalation, the sound quality of each syllable and the resonating effects of the mantra to the neck/head area.
- Let the jaw drop and the mouth open on the “o” sound
 - Feel the vibration of the “m” syllable in teeth and lips. Number: 8 times
- F. In seated position, rest with awareness in the crown center - 7th chakra (sahasrara) for some time.

B) Encourage expression in Written Word or Art

As recommended by Brenda Davies in The 7 Healing Chakras, writing can be an effective means in exploring ones truths and desires. To encourage this, have the client keep a journal of yoga therapy, including comments regarding her practice, identifying the date, how long was devoted to the work, and general comments. In addition, encourage the client to journal any other thoughts on a personal nature as well.

Painting can be a soothing and expression of internal thoughts and feelings. If so inclined, use the hand as the quill for energies moving through the body. Allow them to flow through the heart, directly onto the medium you are working with.

C.) Using the Voice in Song

The voice of the human body is a true gift and lifting it in song can be a powerful release and cleanse of energies within the body. In addition to helping clear the throat chakra, the physical act of singing allowed Margaret to increase her exhalation ability and control, not to mention the sound resonance of her voice. Lastly, this prayer allowed Margaret to use the voice in a sacred way and shift the energy of the throat. Lifting the voice in song is beneficial to the soul and body...

Universal Prayer

1. May all of the wicked return to god;
 May all who are good obtain true peace.
May all who are peaceful be freed from bonds;
 May all who are free set others free.
2. Blessings upon all the people on earth;
 May all the world's rulers uphold what is right.
May only good fortune befall everyone;
 May all the world's creatures obtain happiness.
3. May the rain fall when the earth is thirsty;
 May all the storehouses be filled with grain.
May everyone here be free from harm;
 May all who are good be free from fear.
4. May everyone know a life of joy;
 May everyone live a life of health.
May everyone see only good in this world;
 May everyone soon be released from pain.
5. May everyone overcome all their woes;
 May everyone see only good in this world
May everyone realize all their desired;
 May everyone everywhere be glad.
6. May our mother and father be blessed;
 Blessings upon every creature on earth.
May our works flourish and aid everyone,
 And long may our eyes see the sun.
OM... Shaanti...Shaanti...Shaanti...

10. BIOGRAPHY OF AUTHOR

Denice McFarland-Block has been teaching yoga for 2 years and practicing yoga for 10.

She received her teacher certification in Castle Rock Colorado where she teaches a variety of yoga classes for all ages and is a mother of 3 adolescent boys and wife. Although new to the field of yoga, her constant curiosity and diligent work ethics provides her with a continuous environment of learning and bettering her body observation skills. Fluent in Spanish, she wishes to provide yoga therapy to Spanish-speaking individuals in the US as well as abroad. Prior to her certification she was a Certified Public Accountant, specializing in implementing accounting systems for Not-for-Profit organizations. She has been studying Structural Yoga Therapy with Mukunda Stiles since 2005. In reflection, she is much happier as a yoga teacher than a CPA, helping people with their bodies rather than their books!

Several types of treatment might be used for thyroid cancer. Learn about treatment options and when they might be used here. The American Cancer Society couldn't do what we do without the support of our partners. Learn more about these partnerships and how you too can join us in our mission to save lives, celebrate lives, and lead the fight for a world without cancer. Explore Our Partners. Become a Partner. Papillary thyroid cancer occurs in 70-80% of cases. It is characterized by slow growth and frequent metastasizing to the cervical lymph nodes. Follicular thyroid cancer accounts for 10-15% of cases. It often invades blood vessels and spreads to bones and lungs. Medullary thyroid cancer accounts for 5-7% of cases. It develops from hormone-producing C-cells. At the same time, the sternothyroid and sternohyoid muscles are not intersect, which accelerates the postoperative recovery. The surgeons use a harmonious scalpel that reduces the risk of bleeding. A constant imaging monitoring of the recurrent nerves condition is also carried out. This minimizes the risk of postoperative laryngeal paresis. Postoperative follow-up of the patients with thyroid cancer YoungKee Shong Department of Internal Medicine Asan Medical Center Time trends of new cases of papillary thyroid carcinoma in Asan Medical Center : Maximal diameter of primary tumor 0.6-1.0 cm 800 700 0-0.5cm 600 500 400 1.1-2.0cm 300 2.1-4.0cm 200 100. Unpublished data, Asan Medical Center 2011 2010 2009 2008 2007 2006 2005 2004 2003 2002 2001 2000 1999 1998 1997 1996 0 > 4.0cm 1995 Number of new cases of papillary thyroid carcinoma 900 Factors determining serum thyroglobulin (Tg) Mass of differentiated thyroid tissue Inflammation with thyroid cancer; however, the optimal extent of thyroid resection and lymph node dissection remain controversial. Based on the extent of disease, total thyroidectomy or less Objectives: Postoperative hypoparathyroidism (HPT) is one of the most common complications in total thyroidectomy for thyroid carcinoma. Parathyroid glands (PTGs) are at risk of being damaged during total thyroidectomy and central neck dissection mainly due to inadvertent removal, interruption of the blood supply or hematoma formation. The purpose of this study was to evaluate the efficacy of [Show full abstract] our surgical procedure to preserve parathyroid function retrospectively and to clarify the risk factors of HPT after total thyroidectomy for thyroid cancer.