

Breast Cancer Recovery

**Structural Yoga Therapy Research Paper
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1. Case Study:

Peggy is a 61 year-old Physical Education teacher and a coach for girls' sports. She has been teaching for 11 years. She was diagnosed with breast cancer in her left breast in June of 2006.

Peggy took leave from her work in November of 2006. She is presently at home recovering. She previously cared for her father in her home and he has since been sent to live near her brother. She draws her strength from nature and her yoga practice and was previously very physically active. She learned yoga in her college years and started a personal practice in 2001. Her goal for this process was to recover her fullest strength and to develop a daily yoga practice.

1a. Medical History Prior to Breast Cancer Diagnosis

In April of 2004 Peggy had a skiing accident. Injury was sustained to her left rotator cuff tendon, right thumb ligament, and lower left ribs. The ribs had a hairline fracture. The injury was diagnosed a week later after a pain level of 8 brought her to seek a doctor's assistance. She used physical therapy for the thumb and shoulder for 6 months. The thumb healed; the shoulder did not. Then she used acupuncture for 3 months, which resulted in less pain and did not increase her range of motion.

In December of 2004 she underwent surgery for a torn supraspinatus tendon. It was reattached with screws and the deltoid muscle was split. Nine months of very painful PT followed. It was accessed at that time that full range of motion had been achieved and she felt pain free.

In the time of the recovery from this surgery she received a second injury. In May of 2005 she sustained a labyrinthian concussion of the left inner ear. The pain level was low, but she experienced fuzzy vision, memory challenges, vertigo, and as of the intake date (10/2/06) was still experiencing these symptoms and post concussion syndrome. She had two CAT scans and went to an orthopedist to check left shoulder for residual damage. A neurologist diagnosed a concussion recommending balance physical therapy and rest. She received the therapy and continued to teach and coach full time.

In May of 2006 she received another injury to the right side of the head from a basketball. Symptoms of the previous injury returned. A physical therapist assessed the injury and found that it was likened to the previous, but less severe. She felt a sense of the trauma from the previous injury return with this second injury in the area of the head even though it was the opposite side. The trauma of repetitive injury was very real for her.

1b. Medical History of Breast Cancer

In June of 2006 breast cancer of the left breast was found. In July of 2006 a lumpectomy and sentinel node biopsy was performed on the left breast. At that time 3 lymph nodes were removed as well as the lump containing the cancer. Margins were not clear so a re-excision was performed in August. Chemotherapy was recommended and began on October 5, 2006. The first assessment for Peggy's testing for this study was on October 2, 2006, just prior to her chemotherapy and after her breast surgery.

The Chemotherapy was given in 8 treatments. The first 4 treatments were given 3 weeks apart. The treatment chosen was a lighter dosage. In the second set of 4 treatments a more severe chemo was used (Adriamycin). This drug is known to have side effects that can affect the heart. Peggy's family has had a history of heart-related illnesses. Later it was added, in spite of heart health to give greater assurance of the cancer being obliterated. This more toxic type of chemo began on December 29, 2006 and all chemo was completed in February of 2007.

Radiation treatments followed. The date of the first radiation treatment was also the date of the second assessment for Peggy's testing for this study, March 9, 2007.

1c. Physical Assessment-October 2, 2006

In a visual assessment of Peggy, her left shoulder was higher than her right. No scoliosis was noted. The left hip was just slightly higher.

Checking the hips by using the Sacroiliac Joint Testing (see appendix), it was found that they were in alignment. Though not initially

noticeable on visual observation, a carrying angle was detected in two areas of assessment: elbow extension and shoulder internal rotation. Shoulders rounded towards the chest. Thoracic curve was not entirely flat, but lacked full curvature. A flat area in the thoracic spine was revealed in later physical assessment. Client confirmed that in her last two deliveries of her children she felt that the thoracic spine had been altered and remained fixed and less mobile.

Initial muscle testing revealed all areas of the body to have a range of motion well within full range. Strength testing revealed weakness in the shoulders in abduction, adduction, extension, flexion, internal rotation, and external rotation. Peggy's goal was to regain as much strength as possible. The following chart indicates the movement tested and the result of strength testing for both sides of the body, on initial intake and in closing evaluation. The muscle groups affecting these functions are noted in the next section, 1d.

SHOULDER	10/2/06				3/9/07			
Abduction	Right	1.5	Left	1.5	Right	1.5	Left	2.0
Adduction		4.5		4.5		5.5		4.5
External Rotation		6.5		5.5		8.0		7.5
Internal Rotation		7.0		7.0		8.0		7.0
Flexion		6.5		6.5		8.0		7.5
Extension		6.5		5.5		8.0		6.0

1d. Summary of Findings:

JOINT	ACTION	MUSCLES STRENGTHENED	ROM
Shoulder	Abduction–Horizontal Extension	Posterior deltoid, <i>infraspinatus</i> , <i>triceps brachii</i> (long head)	40° normal
Shoulder	Adduction – Horizontal Flexion	Pectoralis major, anterior deltoid, <i>biceps brachii</i> , <i>coracobrachialis</i>	130° normal
Shoulder	External Rotation	Posterior deltoid, <i>infraspinatus</i> , <i>teres minor</i>	90° normal
Shoulder	Internal Rotation	Pectoralis major, anterior deltoid, <i>latissimus dorsi</i> , <i>teres major</i> , <i>subscapularis</i>	80° normal
Shoulder	Flexion	Anterior deltoid, <i>biceps brachii</i> , <i>pectoralis major</i> , <i>coracobrachialis</i>	180° normal
Shoulder	Extension	<i>Latissimus dorsi</i> , <i>triceps brachii</i> , posterior deltoid, <i>teres major/minor</i>	50° normal

1e. Recommendations of testing of 10/2/2006:

Factors in consideration at the onset of evaluation: For the next six weeks the client had very little time available to practice with work from very early morning to as late as dinner time, then care for her father in her home, and finally time late in the evening for herself. The time at home would be limited to about 20 minutes of practice AM and PM. Time at work breaks could be 10 minutes a few times a day. Her objective was to set up a practice that she could follow daily with these limitations. Later she would be taking leave from work and coaching and sending her father elsewhere for care. And at that time she would have more time for her yoga therapy practice. She wanted to improve the strength of the upper body and her long range goal was to use the experience to develop a daily practice to carry into the future.

We agreed to begin with the Joint Freeing Series (see Joint Freeing Series in the appendix), to maximize the time constraints and to assist with release of the trauma in the body from the injuries prior to the onset of the cancer. This was accomplished by using AM time for upper body JFS plus a 5 minute relax and lower body JFS with 5 minute relax at bedtime. The upper body JFS would address all of the muscle groups that would need to be strengthened over time. The lower body JFS would complete the series and in doing so, unite the upper and lower. It would also help to encourage the lower thoracic curvature.

Breath practice at work was given: Kabahlibati in 3 rounds with diminishing repetitions. Peggy was familiar with the breath from Yoga

practice and enjoyed doing it. The result of this breath is a Pitta quality and balances the Kapha quality of the cancer. To strengthen upper spine and stabilize lower spine, modifications of Cobra and Locust to be done standing at a wall were given. This enabled her to have some practice at work between classes and to produce a Sattvic state at work, as she was still teaching, coaching and going to chemo sessions.

The practice at school helped her in many ways. The two wall asanas enabled her to transition from the work world into the spirit world and feel more grounded as well as their physical assets. The Kabahlibati practice helped tremendously with fatigue. She would also practice this pranayama in her car at points when traffic required her to sit still in her car thru several red lights. It was used on the way to treatments also. She felt that the energy came from the practice when she felt like falling asleep, validating the existence of a more Pitta quality to the body after this pranayama.

1f. Results of recommendations-10/9/2006

A week after the first session, alterations were made to the practice. Peggy found the upper body JFS took too much time in the AM. She did the Locust and Cobra practice at least once daily in her work schedule and sometimes twice. Kapalibhati was practiced every day, even the day of chemo treatment, when she practiced it twice. PM JFS was most enjoyable as it released any lower spine constriction. She wanted to change the AM practice to lower body JFS because she felt best from it. And will practice upper body JFS at PM session. She seemed to be struggling with it, so it was suggested to do less than the recommended 6 repetitions on the movements that were taking a long time. It stands to reason that the JFS movements in the upper body would be more difficult, as they directly effect the muscles in the parts of the body effected by the Breast Cancer and its' treatment. Emphasis on form and a sense of the energy created by the movement was discussed in lieu of a "larger number" in results. Peggy likes to practice Sun Salutation a few rounds each day when she has the time and energy. This was supported for its balancing, Vatta quality.

She was also having some emotional issues come up now that the treatment of chemo had started: Hurt feeling towards her children and anger and resentment towards her ex-husband, financial worries about

taking her retirement, feelings of aloneness without a partner now that the kids are grown and on their own. All of these were in her concerns and uncertainties. To create a sense of mastery over the emotional body, working with positive thought patterns was suggested. Using Heal Your Body A-Z, by Louise Hay for the conditions of Cancer and of Breast Problems, new thought patterns were given to repeat and keep written down to look at during each day. They were as follows:
Cancer: “I lovingly forgive and release all of the past and I choose to fill my world with joy. I love and approve of myself and others.”
Breast Problems: “I am important. I count. I now care for and nourish myself with love and with joy. I allow others the freedom to be who they are. We are all safe and free.”

At Peggy’s request, some asana work was given. She was feeling the control of some of her body going and wanted to know she could still do asana practice. To strengthen the muscle groups listed in section 1d. the following asanas were suggested: Camel, Supported Shoulder Stand, Cobra, Tree, and Down Dog (see Structural Yoga Asanas in the appendix).

1g. Subsequent Recommendations and Results starting 11/28/2006:

The asanas listed above were practiced for 1 week. They proved to be too strenuous. As Peggy’s teacher of Yoga for 5 years I was aware that she had a rajasic quality to her nature and with her practice. She would want to perform at optimum level and would find it difficult to relinquish what she was previously capable of (ayurvedic assessment will be discussed later in section 3). Adjustments made to this part of the practice included: Keeping Camel, Supported Shoulder Stand, Down Dog (not be held), and the addition of Bridge, which simply made her entire upper body feel good and integrated.

She requested to stop Tree. Balance had become a challenge since her 2nd and 3rd injuries. She still tried to do two Sun Salutations a day for flexibility and energy and she felt that the Cobra done in these was adequate for her needs.

At this point in the chemo treatments her body was going thru great changes. She felt very tight and looked it in her movements as well. She felt the tightness in the lower back, hamstrings, and in almost all body

movement. The constriction in the lower spine was not painful, but problematic. She was given the Sacroiliac adjustment (see appendix). She had been introduced to this prior to her breast cancer and was familiar with how to make the adjustment in her own body. I worked with her to detect the need and over the time of our work together, she learned how to evaluate when this was needed.

In this time, Peggy's father had left her home for someone else to care for him while she was in chemo and healing. She took a leave of absence from teaching and coaching. She had completed the third session of her chemo. She was tired the first week after chemo. Feels only to sit or lie down all day. The second and third week after chemo the strength returns more each week. Her best day now was what her worst low-energy day would have been before the chemo.

It was agreed upon to shift the emphasis once again to the JFS. It was to be practiced daily if possible, with 10 minute relax at the conclusion. The emphasis on this practice was to be in the experience of the energy coming in to the areas worked. Asanas given and/or her beloved Sun Salutation could be practice whenever the strength or desire was there. Yoga Nidra was added to the practice. It was to be practiced twice a day. This practice was given to bring the body to a Sattvic state. She had been taking short walks on her own and it was suggested that the time immediately after the walk was an excellent time to follow with Yoga Nidra.

She had been working with the positive thought patterns given in section 1e. and found that from that she was gaining insight into how she had previously given into the needs of others above her self. She planned to continue with them through the chemo treatments.

She also had concerns with what the chemo was potentially doing to her body, especially her heart. She had a heart health history in her family that she had consciously tried to work to improve prior to the cancer. The use of the more toxic form of chemo in the second half of her treatments could well be stressing her heart. Her decision to use this drug known to have potential heart health counter indications was a difficult decision. She had dreams that she should use this drug in spite of this. We agreed that Yoga Nidra practice would be a natural at this

point. She had been using a relax time after each JFS, but this would take the relax portion to a deeper level.

She wanted to continue with Kapalibati and was advised that it be done very gently, sattvicly.

Subsequent Recommendations and Results including December 5, 2006, February 2 and 23, 2007:

Peggy was evaluated three more times prior to the closing evaluation over an additional period of three months. In each case, the practice remained basically the same. The JFS formed the nucleus of the practice. Yoga Nidra and breath practice were also practiced daily, or twice daily. Asanas from the practice given in section 1g. were used at the clients' choice as was Sun Salutation. An additional positive thought pattern was given from the Louise Hay book, regarding the Heart. It was: "Joy, Joy, Joy. I lovingly allow joy to flow through my mind and body and experience." And an open-ended meditation for creating her future was created for her to use in her meditation practice. The format of the meditation was recorded with time allotted for her to "fill in the blanks" with how things might look for her in the future. Care was given to make sure the meditation reflected her version of the future.

Closing assessment revealed the results shown on the chart in section 1b. This assessment took place just two weeks after the last chemo session and the same day as the first radiation treatment. Even in this compromised state, the body revealed an overall increase of strength. Six movements were tested on two sides of the body resulting in data for 12 evaluations. Of these twelve, nine were stronger, representing a 75% increase in strength. While the other three, representing 25% of the date remained the same. There was no loss of strength in the second testing.

2a. **Name and description of the condition:** The medical condition is Breast Cancer. According to "Surgery and Its Alternatives" by Sandra A. and David J. McLanahan, M.D.s, The exact cause of breast cancer is not specifically known and is, in fact, a combination of genetics, hormones, environment, dietary factors, and possibly viruses. What is known is that breast cancer in women is 110 times more likely than in men. Also, only 3 % of all breast cancers are

found in women before the age of 30. After age 45, half of all lumps are malignant. In addition, rates of breast cancer are five times higher for people living in the United States than in countries eating a low-fat diet.

b. Gross and Subtle Body Common Symptoms: Breast cancers may be detected by self-examination or thru the use of mammography. According to “Surgery and Its Alternatives” when the lump is found thru self-examination, it has often been in the body as long as five years. Other than detection of a lump, this condition may show no other direct signs to its host.

c. Related challenges: Challenges come as the treatment begins in that the body becomes debilitated from chemotherapy. The immunity is lowered and many other side effects occur including fatigue, difficulties in concentration, food tasting unusual, the hair is loss, and depression is common. The sense of mastery over the body is loss

3. Ayurvedic assessment: In his book on ayurvedic principles, Mukunda Stiles states that, “Kapha governs tissue growth; strength; stability and natural tissue resistance....It governs growth, maintenance, and longevity on the cellular level, and stabilizes the auto-immune system to promote stamina.” When Kapha is not in balance all of these systems are adversely affected. Cancer is a condition when Kapha is out of balance.

His book goes further to state that, “Kapha governs the region from the head to the diaphragm. Its home region is the chest cavity and its seat of balance is the heart.”

With this in mind, addressing Kapha from an ayurvedic perspective is explored.

With reference to the conditions of the body prior to Breast Cancer from section 1a., it is clear that the body had experienced several traumas prior to the diagnosis of the cancer. Prior to these traumas, Peggy had been thru a divorce, her mother’s death, and had taken over the care of her father. She was teaching full time and also coaching three seasons of girls’ sports. She felt overwhelmed and alone in her emotional life. It suffices to say that the balance of her life was upset.

The accidents that occurred following the emotional issues took the body to a new level of stress with inflammation and pain. And finally, she was diagnosed with Cancer.

This progression of dis-ease in the body represents a classic progression from an ayurvedic perspective. The emotions were out of balance disturbing the Vata which, when continued over time, led to a compromised system open to invasion, entering the body in a series of accidents. The accidents were stressed by insufficient rest and recovery. These were conditions exemplifying Pitta in excess. Overtime and unchecked, these led to the excess of Kapha express in the form of Cancer, located in the breast, not far from the locations of the previous injuries.

4. Common body reading: There are no specific visual body readings directly or exclusively related to Breast Cancer. Visual body readings for Peggy are discussed in section 1c.

The Range of Motion may be affected after treatment begins or anytime when treatment is on-going. This is due to the conditions created by chemotherapy; fatigue, lowering of the immunity, and overall weakness. When this occurs in people with Breast Cancer, the ROM in the upper body is usually affected. The method of treatment is the greatest indicator of how the effect on the body will manifest. For example, those who receive full mastectomy will certainly be most affected. In Peggy's case, ROM was not affected and was well within the normal range.

Also, weakness may be noted primarily in the upper body. This was the case for Peggy. In her body the previous injuries (section 1a.) held some responsibility for this weakness. After many traumas to the upper body, weakness occurred. In fact, these traumas could well have weakened the body over the prolonged time and/or contributed to the onset of dis-ease in the same location as the injuries. This theory, from an ayurvedic perspective is described in section 3.

These become more apparent when muscle testing and range of motion are completed. The strength in shoulder functions is described in

section 1d. for the functions and muscle groups affected. These are likely areas to be affected with Breast Cancer.

5. Contraindicated yoga practices: In order to speak in terms of contraindicated yoga postures it is necessary to first speak about what is indicated for the body. To do that, the best place to go is to the body itself and to ask the questions: What does the body want? How does it wish to move to feel good right now?

The body knows and speaks to us. Part of the healing process is to learn to listen clearly to the body and then to follow its wishes. In this dialogue the discovery is made that the body is good, it can be trusted and its voice is clear to us if we listen. This also re-establishes trust in the body, a clear dilemma to a person experiencing dis-ease.

Moving into the yoga practice and moving through life with kindness, clarity, and “ears” wide open is what is clearly indicated. A great place to start in this approach is to make the connection with the breath. Simply observing the breath, and if the ability is there, moving into diaphragmatic breathing or pranayama practices that the client has practiced prior to the dis-ease and feels to practice now. In the case of Peggy, Kapalabhati was her favorite and continued to be through her recovery. She had developed the “ears” to hear her body asking for this breath from her prior years of practice. For her, it produced a sense of exhilaration, a common by-product of this pranayama. This practice also released the congestive state of the Cancer, the Kapha quality.

Deep relaxation, or Yoga Nidra was also a mainstay for Peggy and is an excellent choice for anyone in an immune-compromised position such as that produced from radiation and/or chemotherapy. The longer the time spent in relaxation, the greater the body responds to using it for healing. Fifteen to twenty minutes is not too long.

In Peggy’s case the contraindicated poses seemed to be those that she lacked the energy for and any that created demand on the site of the impact of the surgery. But the love of the practice and its effects on her body called her to asana from time to time. The Joint Freeing Series also felt safe and gave a focus for practice.

Modifications to asanas can be made so the client can continue to practice favorite asanas. This is the work of the Structural Yoga Therapist.

The previous section draws information from the Integral Yoga GentleYoga Teacher's Manual containing an article on Yoga and Cancer by Janet Piggins.

6. General recommendations for the condition:

a. therapeutic/free of pain: When someone who has undergone treatment for Breast Cancer is free of pain and looking for a therapeutic approach to their body, gentle yoga, mindful breath practice, and deep relaxation are wonderful tools. The Joint Freeing Series used in this therapy is the most refined and simplified method of Yoga practice. The stress reduction effect of these practices is now widely recognized. It is also now understood the connection between stress and aggravation of existing conditions. .

b. stabilize situation and lifestyle change recommendations: Lifestyle changes could also include walking for improved circulation, stretching which is known to activate the lymphatic system, and spending time reflecting on a spiritual observation or practice. The opening of the physical heart area of the body and the opening of the spiritual heart are essential. Meditation to this end is essential. Visualizations are often helpful in directing the meditation.

c. maintenance and long term considerations: The maintenance and long term considerations may include medical checkups and/or homeopathic or ayurvedic assessments with recommended cleansings at intervals. Choosing healthy foods and raw foods is a part of the recovery.

If the client is feeling the need for counseling or group participation in counseling, this can be explored. Dr. Dean Ornish uses a program of group support to fully heal heart patients and his research has clearly indicated a connection between group support and healing. Often the emotional balance is in need of this type of support after the trauma of Cancer.

If finances have been stretched to the limit in the treatment time, the use of a social worker may be just what is needed to unravel these issues.

We know very clearly that Cancer affects many aspects of the body/mind/spirit. To heal it and maintain that balance free from Dis-ease, a holistic approach is essential.

7. Questions and Answers from www.yogaforum.com: These may be helpful in working with the client. From this website the following were most informative: The first part of each entry is a question asked to Mukunda Stiles who replies in the second part.

Yoga and Cancer 1/11/03

Thank you for your comments, Mukunda! I have another question concerning Hodgkin's lymphoma. Can yoga help? Patient is 40 years old man, otherwise fit, and no yoga experience.

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.

Colon Cancer 11/19/02

I have a student that is early 40's, diagnosed with colon cancer. She has had surgery and 6 months of Chemo, with 3 more months of remaining treatment. After problems with her eyesight (she is a photographer), she is refusing the remaining Chemo treatment. She is seeking treatment with a holistic doctor. Should we focus on breathing, relaxation and meditation techniques? Should we work on your joint-freeing series? I would appreciate any advice!

Joint freeing is always beneficial regardless of the condition. With regular use it can increase the flow of prana that is healing and can restore imbalanced pranas to their energetic home locations. Learning to feel the prana and life force energy flows is highly beneficial. As from that she can learn to direct her own healing regardless of what therapy she may want to pursue. For cancer it is best to give visualization, affirmations, and inquiry meditations (not trying to do deep meditation) into what do I want? What is incomplete? Do i have any resentments to others that i can clean up?

Cancer and Yoga 4/24/02

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

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>.

Other Websites:

www.Webmd.com the website for Dean Ornish, M.D.

www.iayt.org the website for the International Association of Yoga Therapist

References:

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Heal Your Body A-Z by Louise L. Hay

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Integral Yoga Gentle Yoga Teacher's Manual from Satchidananda Ashram

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Surgery and its Alternatives by Sandra A. McLanahan, M.D. & David J. McLanahan, M.D.

The Repetitive Strain Injury Recovery Book by Deborah Quilter

Science of Breath, a Practical Guide by Swami Rama, Rudolph Ballentine, M.D. and Alan Hymes, M.D.

Structural Yoga Therapy by Mukunda Stiles

The Yoga Sutras of Patanjali