

The Therapeutic Use of Yoga

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INTRODUCTION

Physical therapists are aware of the relationship between stress and physical pain. Stress affects every cell, tissue, and organ. It lessens our joy of living and creates a less focused, less serviceable mind. By including certain techniques from the Yogic tradition in our practice of physical therapy, we improve the outcomes of our treatment while reducing stress and creating awareness of patterns that sabotage treatment.

This paper will look at the mechanisms involved in the therapeutic use of Yoga in the treatment of pain and stress-related disorders. It will describe aspects of Yoga that improve the outcomes of physical therapy treatment and are easily incorporated into a rehabilitation setting. It will include: (1) a discussion of Yoga and its current use, (2) the components of a Yoga therapy session, and (3) the application of the tools and philosophy of Yoga by the physical therapist.

THE “S” IN SOAP NOTES

A Yoga session begins by bringing awareness to the breath and bodily sensations. It begins by asking the person to focus more deeply on sensations in the body. Metaphorically, the therapist asks the question, “Have you noticed?” It seems appropriate to begin an article on Yoga in rehabilitation by asking the same question: “Have you noticed?” . . .

- Have you noticed how a client reinjured his back because he lifted a 60-pound bale of hay when his lifting was restricted to 25 pounds? “No one was there to help.”
- Have you noticed how a client’s hip pain returned after planting 100 bulbs? “The pain increased with each bulb I planted, but the gardener didn’t show up and I had to get them in.”
- Have you noticed how a client can be so driven to (a) compete in group sky diving that he could cause a partial rotator cuff tear to become a complete tear? or (b) go backpacking with a bulging disc because the trip was planned 2 months prior? “They were counting on me.”
- Have you ever witnessed the compulsion to do a headstand in a Yoga practitioner even when told that it would further damage the spine?

I call these examples the “I-have-to-do-it syndrome.” Physical therapists deal with this in a variety of ways. One of my teachers used to say, “This problem is supra-tentorial,” or “Your problem exceeds the limits of my expertise.” The Yoga therapist would say “If a client continues to do a headstand after being told it will further damage his spine, then we are not treating the body, we are treating the mind.” In our “SOAP” notes, this is “S.”

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The mind can sabotage even the most perfectly formulated treatment plan. Patanjali’s Yoga Sutra, the definitive guide to Yoga, defines Yoga as the “ability to direct the mind without distraction or interruption.” Desikachar, the lineage holder of the Viniyoga teachings says, “Specifically, the Patanjali Yoga Sutra concerns the attainment of a stable mind and healthy body so that personal goals may be achieved. Such attainment is independent of cultural background and religious inclination.”¹

A RISING INTEREST IN INTEGRATIVE APPROACHES

The increased workload and lower reimbursement rates for physical therapy in the past 10 years coincide with problematic ethical situations. Both doctors and physical therapists are experiencing progressively less control over diagnostic procedures and treatment plans. Concurrent with these challenges to the practice of medicine and physical therapy, there is a growing interest in complementary and alternative medicine (CAM). Speaking in Santa Barbara on 1/22/02, Larry Dossey, MD presented the following statistics: The use of CAM from 1990 to 1997 increased from 420 million visits to

629 million visits and from \$14 billion to \$21 billion, over half of which was out-of-pocket. Editor of *Alternative Therapies*, Dossey states that people are choosing alternative medicine in addition to traditional medicine, not instead of it. He suggests that the interest lies in the fact that CAM resonates more closely with their worldview. This is concurrent with a rising interest in spirituality in medicine—over 80 medical schools are now offering as part of their curriculum, courses which study the effects of intercessory prayer and demonstrate the benefits of spirituality in adding longevity to a person’s life and decreasing the incidence of disease.

Nowhere is this trend more obvious than in the rising interest in Yoga. In a feature article, on April 23, 2001, *Time* magazine reported that the number of people including Yoga in their fitness regime has doubled in the last 5 years. Seventy-five percent of all US health clubs offer Yoga. Given the competitive nature of many of the practitioners and the extreme postures that are often used, it is not surprising that there has been an increase in the number of Yoga-induced injuries. Many of these injuries have an onset that is so slow that it cannot be directly linked to Yoga. Gregory Johnson, PT, FFCFMT, President of The Institute of Physical Art Inc., reports, “Long-term Yoga teachers have a higher than normal rate of disc degeneration, particularly those who have emphasized deep spinal stretches.”

We can support the needs of this population of Yoga practitioners. This is especially important since a large number of people receiving Yoga therapy for stress-related disorders in medical settings also suffer from musculoskeletal pain syndromes. Physical therapists are movement experts, whereas the training of Yoga teachers and Yoga therapists does not include pathokinesiology or kinematics. By blending the strengths of Yoga with the knowledge of physical therapy, we open our profession to learning new treatment methods and gain valuable insights from an ancient wisdom tradition.

YOGA: SYNCHRONIZING BODY AND MIND

Contrary to popular belief, Yoga does not require excessive length of muscles or excessive spinal range of motion. The beauty of Yoga is that it can be done by

anyone who can breathe and think a thought. The poses that are commonly associated with Yoga are only one of the tools of Yoga. Other tools include breathing techniques known as pranayama, and meditation or relaxation, which may include visualization.

Yoga is different at different stages of life. In the aging population, or with any debilitating condition, Yoga focuses primarily on pranayama and meditation, with slow mindful movement determined by a person's physical condition.

Today, there are many schools in the U.S. teaching different styles of Yoga. While they differ in outward form, a common thread is the intent to enhance self-awareness. On the level of thought/emotion (known as *mind* in eastern philosophy), self-awareness centers on issues of personal mastery and relationship to others. On the physical level, the westerner appreciates increased strength, flexibility, stamina, and balance. From the perspective of Yoga, these physical benefits are merely by-products of a bio-energetic system powered by prana, the life force (*chi* in Chinese medicine). Yoga values the increase in overall vitality and organ strength, and most importantly, the ability to direct the mind and the body. While no public figure in the western world has accomplished the highest of the yogic feats, many western students of Yoga have described an experience of 'inner peace.' Yoga is a practice that is well suited to address the rise in stress-related disorders.

There are numerous Yoga therapy programs established in hospitals and clinics where stress is recognized as a factor in creating illness. Herbert Benson, MD, who coined the term *relaxation response*, is the President of the Mind/Body Medical Institute at Beth Israel Deaconess Medical Center. Yoga therapy is used at this facility as part of a comprehensive program to treat cancer, heart disease, pain, anxiety, infertility, chronic fatigue, headache, gastrointestinal disorders, and autoimmune disease. The Hospital for Joint Diseases in New York City has an 8-week resident program for chronic pain in which a physical therapist teaches Yoga in a class setting. While there are no figures showing the number of clinic-based Yoga programs in the U.S., in my hometown of 200,000 people, 2 of 3 hospitals offer Yoga for employee wellness. Two other programs are offered privately through the Multiple Sclerosis Society and the American Cancer Society. In addition, there are 2 physical therapists and 6 alternative medical professionals who use Yoga in their private practice.

The tools of Yoga are congruent with

the latest findings in psychoneuroimmunology,² numerous studies on meditation, and the work of Jacobsen in the 40s on progressive neuromuscular relaxation. The Yoga Research and Education Center offers a bibliography of research documenting the effects of Yoga (including meditation) on all stress-related disorders.³ While not within our academic training, the tools of Yoga fall within the scope of physical therapy practice. As one of my professors used to say regarding the cycling of physical therapy practices: "What was old is new again." From a 5000-year-old Vedic practice, to the neuromuscular relaxation techniques of the 1940s, to the current use of Yoga, we appreciate the value of enhanced awareness through a technology of silence and mindful movement.

The technology of India has been enhanced by each culture that it has entered. I suspect that its merging with western science will create a superior hybrid. Physical therapists are part of this process of hybridization, as exemplified in the following developments:

- Matt Taylor, MPT, RYT has presented numerous articles related to the use of Yoga therapy in rehabilitation. An overview of a Yoga program for clients following a total hip replacement was published in *Orthopaedic Physical Therapy Practice*.⁴
- My article published in the *International Journal of Yoga Therapy* presented a classification system to select asanas that would restore precision to joint movement and prevent repetitive stress.⁵

The number of physical therapists using Yoga in their practice is growing. How can we, as physical therapists, optimize the value of this ancient technology in our practice?

THE TOOLS OF YOGA

The goal of the Yogic tools as currently used is to bring each individual into optimal health and peak performance. The Yogic perspective of health is multidimensional. We understand that life occurs in layers. The Vedic seers grouped these layers into 3 broad categories:

- The physical body, consisting not only of the material body, but also the bio-energetic field (prana) that infuses it with life force;
- The subtle body, consisting of the *lower* mind, (stimulus-response mind), and the *higher* mind (seat of discrimination and wisdom);
- The causal body or spirit, which causes all the above, denser bodies to come into being.⁶

From the bodily systems to organs, tissues, cells and beyond, we are invited to a depth that finally exhausts our technological skills. In Yoga the layers go where technology cannot.

Disease is considered a separation from our true nature. It begins in the most subtle body and then moves to the physical manifestation of illness. Illness can be considered a *reset* button that prompts us to take the responsibility to look deeper into thoughts, emotions, and beliefs that are causative. *No pain, no gain* is one example of a popular myth, a cultural belief, that breeds recurrence of pain and disease through excess and through separation of body and mind. True healing occurs at all levels only when causative factors are addressed. In my opinion, this is holistic healing. It can occur in the physical therapy department with the tools of asanas, Yogic breathing (pranayama), and meditation (including prayer, guided self-inquiry, and relaxation).

The influence of stress in disease has been largely unrecognized until recently. It is only with the advent of psychoneuroimmunology that we have begun to take notice. Understanding the intimate chemical connections between the nervous system, the endocrine system, and the immune system fosters respect for the dangers of stress. The same mind/body connection that causes a person to blush in a moment of embarrassment also can send cortisol and adrenaline in response to thoughts of fear.

Cortisol and adrenaline are helpful in life threatening situations. The body responds to the needs of the moment and then returns to its normal mode of operating. However, in our society, the perception of threat goes beyond the imminent threat to our survival. Fears can be born of fatigue and loneliness. Anger and frustration can arise from a pressured life style. It requires progressively less stimulus for our body to respond by sending extra cortisol into the body. When low levels of stress chemicals remain in our blood stream over time, we experience chronic stress as a conditioned response to our life style.

The success of Yoga therapy in treating pain and stress-related disorders is explained by Joseph Le Page in the *Integrative Yoga Therapy Manual*: "The practice of asana, pranayama, and meditation begins to quiet noise in the mind and allows us to get past the filters in the mind to an experience of inner peace. Done regularly, the conditioned responses weaken and we begin to witness them for what they are—just habits of percep-

tion. We begin to notice that peace and contentment are not conditioned by external experience. We begin to have more options in how we respond to life and how we create our reality.⁶

Yoga provides a multifaceted approach to treating the stress component of pain. Research in this field is well underway, though complicated by individual variations in the perception of stress and the many ways that it manifests in the mind and physiology. A bibliography of research on Yoga in the treatment of chronic pain can be obtained from the Yoga Research and Education Center.⁷

The use of alternative treatments is slow to be accepted by some. Yet leaders in our field of physical therapy recognize the need. In his Mary MacMillan lecture, at the Annual Conference and Exposition 2001, Jules Rothstein PT, PhD, FAPTA asked the question, "How long can we tolerate the intellectual dishonesty of those who argue that to embrace new methods or to use what are called 'alternative treatments' means that we must abandon scientific inquiry and clinical trials? New ideas and radical notions become accepted quickly when they are demonstrated to have clinical benefits, not when we whine about the impossibility of research."

Asanas

There is a common tendency in the western world to reduce Yoga to asanas, and to further reduce asanas to stretching. Combined with a *more is better* mind set, this can be damaging. Asanas are merely 1 of the 8 components of Yoga as described by Patanjali's Yoga Sutras. Asanas can not only stretch, but also strengthen and stabilize our physical structure and benefit the physiology and mind as well.⁷

The essential qualities of asanas are from the Sanskrit words—*sthira*, steady alertness; and *Sukha*, light and comfortable.¹ When Yoga is applied therapeutically, the poses are adapted to the individual as directed by the physical therapy evaluation. Incorrect use of asanas to create excessive spinal flexibility or muscle length can cause injury, and prematurely age our movement system. Ahimsa (the philosophy of nonviolence) is in agreement with the Hippocratic oath: "At least, do no harm."

Our physical needs are different now than they were in the early practice of Yoga. Modern careers and recreational activities create physical and mental demands that were not part of the life of the ancient yogic saints. In addition, we have evolved in our understanding of our movement system. We understand the

importance of maintaining optimal muscle length.⁸ We know that excessive muscle length alters the control a muscle has over the segments that it influences, leading to repetitive stress and eventually pain.⁹ As Yoga incorporates this knowledge, it evolves. By respecting our body's biomechanical needs, we increase the longevity of our movement system and the chances for a long and pain-free life. For an introduction to the indications and contraindications in selecting Yoga asanas using an application of Movement System Balancing,⁹ the reader is referred to my article, "*Correcting Movement Imbalances with Yoga Therapy*."⁵

Historically, there have been thousands of asanas documented, along with their modifications. Thus, all therapeutic movement performed with full attention and coordinated with inhalation and exhalation can be considered a part of Yoga therapy. Depending on the degree of pathology, the poses are performed either statically or dynamically in what is called Vinyasa, a series of flowing movements. When asanas are linked to the breath, they affect not only the physical body but also the mind. It is through the breath that we can truly link the mind to the body.¹⁰

YOGIC BREATHING

Pranayama

There are many breathing techniques used in Yoga, each with its specific effect on the physiology and the mind. Some forms of breathing are used to energize the body. Some are used in strengthening poses to teach the body to respond to stressors without weakening the immune system. The diaphragmatic breath stimulates the parasympathetic nervous system. It reverses the cycle of stress and rapid shallow breathing that is characteristic of the stress response. The Ujjayi breath improves balance and endurance in more challenging asanas. Most importantly, the combination of asanas and pranayama has a balancing effect on the mind. Together, they remove the distractions and tensions in the body and the mind as a preparation for meditation.

Relaxation/Meditation

In speaking of Yoga, one Tibetan Buddhist nun told me, "When you calm the body, you calm the mind. Then you clear a space to look at fear, attachments, and anger." Meditation is a time to go within; for some, it is a time of self-inquiry. Some clients may choose to use this time for silent prayer or for an already established meditation practice.

Instruction in meditation can take many forms. A Tibetan Buddhist form of

mindfulness meditation is taught by Allan Wallace, a former faculty member in the Department of Religious Studies at the University of Santa Barbara, CA. Author of many books on Tibetan Buddhism, Wallace speaks of the importance of developing *attentional stability*. The meditations can be used while clients are on modalities in the department to develop the ability to focus the mind. The first mindfulness meditation centers on sensations in the body. Progressively more challenging is the ability to stay focused on the breath, on the thoughts that come and go, and finally on the mind itself. These initially require verbal guidance and can be as short as 5 minutes.

Another form of meditation repeats a sound (mantra). Herbert Benson, MD uses this form at the Beth Israel Deaconess Medical Center connected to Harvard University. Mantra, energized sound or sacred word, is the basis of all religious traditions, scriptures, and prayers. In one form or another, it is the key religious practice of humanity.¹¹

Initially, when a person quiets the mind, the relaxation response will cause drowsiness and the person may fall asleep. It is estimated that 80% of our population is sleep deprived. For this reason, some advise taking one-half hour of rest before beginning asanas so that meditation can go beyond drowsiness into a state of inner wakefulness. In this state, the heart rate, respiration rate, and blood pressure decrease, while the mind stays alert. To a degree this may be experienced in single-pointed activities such as gardening, giving a massage, most forms of art, and during the practice of asanas and other forms of movement meditation. The more this state is cultured in the nervous system with a sitting meditation practice, the more it flows into our activities. Advanced Yogic masters can experience all activity from this level.

Meditation is an important tool for healing the mind and the body. Recent studies by both Dean Ornish and the Transcendental Meditation movement suggest that stress reduction by itself can reduce atherosclerosis without changes in diet and exercise. The latter study was published in the March 2000 issue of the American Heart Association's journal, *Stroke*. Director of the Preventive Cardiology Center at Cedars-Sinai Medical Center in Los Angeles, Dr. Noel Bairey-Merz says, "This is one of the few proven stress management techniques that has been tested with our best science. I would concur that it appears to have an effect on blood pressure and carotid artery thickness, and it has no adverse effects."

THE THERAPEUTIC USE OF YOGA IN A REHABILITATION SETTING

Dedication

In his speech on spirituality in medicine in Santa Barbara, CA on 1/22/02, Larry Dossey, MD said: "Before he begins to operate, one surgeon raises his hands and says, 'God, these are your hands. Please don't embarrass yourself.'" Tibetan Buddhists ask that all their thoughts, words, and actions be for the purpose of eliminating suffering and the causes of suffering from all beings. It is valuable to take a few moments at the beginning of our workday to dedicate the merits of our actions in keeping with our spiritual beliefs or our purpose in life. This forms part of a Yoga practitioner's personal practice of Yoga. By deepening one's own practice, the work with others improves.

The Physical Therapy Evaluation

There are many meanings of the word Yoga. One meaning is *to attain what was previously unattainable*.¹ In order to do that we must evaluate and accept where we are. Using the integrative approach of Yoga therapy, the evaluation includes the *layers* of both the body and the mind as described above.

The evaluation begins in the waiting room with a form that asks about the client's appetite, quality of sleep, level of energy, fulfillment in career and relationships, etc. No advice is given regarding the answers. Often the client can see the connection between these questions about their quality of life and the pain they are experiencing. The questions serve the client as a tool for self-reflection and for establishing personal goals. The client's answers may reveal the need for an outside referral.

Subjective

As the patient describes the behavior of the pain and how it occurred, it may be possible to hear more than just the mechanism of injury. In many instances, beliefs, attitudes, impulsive behaviors, or compulsive tendencies complicate both the cause of injury and the treatment. From the perspective of therapeutic Yoga, evaluation is a process of increasing awareness.

Therapeutic Yoga strives to deepen a person's awareness of his or her body and his or her sensations so that the referral process is internal. The client becomes self-referring in establishing limits. Those who have closed off the perception of pain in order to *get on with life* may find it difficult to know their tolerance levels. It may be useful for the client to keep a journal of the positions and activities that increase pain. The tolerance levels can then be established, and the client can

learn to pace activities and budget his or her energy and time. I ask for a rating on a scale of 0 to 10 during any discussion of pain. Whether the patient is in denial or is a symptom magnifier, this serves the purpose of objectifying a very subjective and often frightening experience.

Objective

Evaluations differ with each therapist. A large part of my evaluation protocol consists of movement and postural tests taken from Movement System Balancing. *Diagnosis and Treatment of Movement Impairment Syndromes* by Shirley Sahrmann, PT, PhD, FAPTA contains the neurological principles underlying this approach and includes the complete evaluation and treatment protocol. The movement diagnosis obtained directs the treatment. The correction of movement and postural faults begins with the evaluation, along with the instructions for altering ADLs. This testing increases awareness of movement and postural faults and the treatment protocol lends itself well to establishing a Yoga therapy program from the first day. Using the approach of Movement System Balancing, the client can immediately feel the change in pain level when the faulty movement pattern is corrected. This creates an eagerness to perform the home program.

Evaluation of the client's breathing pattern is important in relieving pain. Often the breathing includes accessory muscles which, if not corrected, will perpetuate neck or headache pain. The body may respond to pain by creating a shallow breathing pattern. Over time, a person with pain and/or chronic tension becomes a shallow breather. The quality of the breath both influences and is influenced by the autonomic nervous system. To break a cycle of stress, muscle spasm, and pain, it is important to evaluate and correct the breathing pattern.

In my early practice of physical therapy at Rancho Los Amigos in Downey, CA, there was a 4-point system used to describe the relative use of the diaphragm, intercostal, and neck muscles. In Yoga therapy the evaluation of the breath is more comprehensive and covers 4 to 5 additional parameters. Breathing techniques vary in their ability to energize or relax the body, and to create heat or to cool. They have a stabilizing effect on the mind. Choices are made based on the evaluation of the breathing pattern and the pathology.

In my clinical practice, I have found that there is value in establishing a partnership where commitments are made on both sides. I commit to using my high-

est skills as a therapist who truly cares about the client's well being. In return, I request that the client commit to 2, 20-minute sessions a day to perform a home program and that they follow all recommendations for pacing and modifying activities and positions unless they notify me. I explain that the key to recovery is a commitment to doing the work and a willingness to observe one's self.

PHYSICAL THERAPY TREATMENT USING THE TOOLS OF YOGA

We may never see CPT code 97101, *Building Awareness*, but we can build it into every part of our practice. The beginning of every movement session begins with 2 to 5 minutes of breath and body awareness, verbally guiding the client through a scan of the body. The client's attention is drawn to aspects of the breath and the body in a sequential manner: for example, the weight of the foot pressing onto the treatment table and later, noticing the space behind the low back. "What you feel, you can heal" is as true for the body as it is for the emotions.

Each physical therapist has a unique set of treatment skills. Yet each method requires breathing and moving and can benefit from the lowered sympathetic arousal and greater mental focus that occurs when the two are consciously combined. Following is a sample of a sequence I use with clients:

Breath awareness/ Sensory awareness	5-10 min.
Asanas	15-20 min.
Pranayama	5 min.
Meditation/relaxation	5-10 min.
Home program review	5-10 min.
Total: 35-55 min.	

When time is limited, even a 20 minute program of asanas coordinated with the breath (15 minutes) and followed by meditation/relaxation (5 minutes), provides an experience that can be carried through the day to the client's practice at home. I find it useful to keep a tape recorder handy to record those portions of the treatment that are to be repeated at home. The audiocassette is a simple way to note a number of details specific to that client. It is also an easy way to tape a guided relaxation sequence to follow asanas for home use (usually a total of 20 minutes).

By incorporating Yoga therapy into the treatment principles of Movement System Balancing, I find that precise work can be done very quickly: (1) In the neuromuscular re-education of a dormant

muscle, for example the lower trapezius, the slow mindful movements, performed submaximally, minimize the over-recruitment of dominant muscles and maximize participation of the dormant muscle. (2) The slowness of the movements performed with full attention and paced with the breath minimizes the interference of subcortical programming. It enhances kinesthetic awareness. (3) The slow pace induces muscle relaxation where muscle spasm or pain exists. (4) Coordinating the movements with the breath ensures that the person does not hold their breath or breathe so superficially that they cause or increase a stress response. In addition, mental focus improves with the correct breathing technique. (5) After re-education, strengthening occurs with the benefits of a relaxed nervous system, optimal cellular respiration, a focused mind, and enhanced sensory awareness. (6) Once the client can perform all movement tests with a stable pelvis, this skill can be integrated at a deeper level with progressively more complex asanas that challenge their kinesthetic awareness.

Additional Notes

All asanas can be taught with a neutral spine—and must be if movement tests demonstrate a pattern of pelvic instability connected with pain. Asanas frequently occur at the end range of motion where opposing muscles can be stretched and strengthened simultaneously while reinforcing the lessons of spinal stability. The sequencing of asanas is a subject that goes beyond the scope of this article.

I received my first instruction in asana and meditation in 1973, shortly after I began work as a pediatric physical therapist in a school for developmentally disabled children. As I was learning the sequence of 7 to 8 asanas, I was surprised to find a strong correlation with the sensory integration routine I had been using with the children. In both the asanas and in physical therapy, we started with sensory stimulation — rubbing and squeezing the body from head to toe. Then, with knees to chest, we rolled from side to side. This was much tamer than the obstacle courses I had created for the children, rolling up and down inclines and under tables. The next Yoga poses were the same as the reflex-inhibiting postures that I had done with the children both in prone and then in supine positions. The similarities continued with a kneeling pose, an inversion pose, a gentle twist, and finally the relaxation pose (savasana). In the Yoga class, this was the preparation for pranayama and meditation. At the school, meditation took the form of a centering activi-

ty—playing with sand, clay, or water.

Whether we work with neurologically involved clients or orthopaedic clients, stimulating the tactile, proprioceptive, and vestibular centers benefits the nervous system in many ways including emotional well-being.¹² Props can be used in Yoga poses to support the body in various spatial orientations. Whatever program of exercise we create for our clients, there is value in providing contrast in orientation to space and contrast in alternating the use of opposing muscle groups (counterpose).

Once the mind has settled with asanas, it is helpful to spend a few minutes using one of the Yogic breathing techniques to prepare for relaxation or meditation. For those who have more time and wish to experience even greater benefits from meditation, I recommend a study of Yoga Nidra or Tong Len. Yoga Nidra combines relaxation, affirmation, and visualization for work on all levels of being. Tong Len is a spiritual practice of Tibetan Buddhists developed to increase compassion and loving kindness towards all.

The time given to prayer, meditation, or relaxation after a treatment maximizes the effect of the treatment. Dating as far back as the 1970s, I found that clients in the clinic could achieve a relaxation response within 3 to 5 minutes by guiding their attention to each body part. When personal instruction was not possible, we used guided relaxation or visualization on audiocassette tape. If time is limited, the use of prayer, meditation, or listening to a relaxation tape can be done privately after a treatment by providing a client with a quiet space where the time in silence is undisturbed.

As an example of a client's response to relaxation, the following is the experience of a person with chronic fatigue immune dysfunction and fibromyalgia who had a history of overworking. She reports, "I used to be so uncomfortable with inactivity that I worked full time when I was in graduate school and then took a second job just so I wouldn't sit still. The relaxation tapes¹³ reversed that. I felt as if I didn't want to do anything else—like I couldn't move my body and that was good!" The benefits of relaxation combined with the work of the asanas performed with focused breathing, caused this person to drop 2 sizes in her clothing. She had gained muscle mass so that the decrease in body weight was only 10 pounds.

In a second example of the wholistic benefits of this approach, a technology executive had been severely injured in a car accident. He reported, "I've had the

first 4 pain-free days in 20 years. A calmness has come over my body that I haven't felt in a long time."

It is this response of the nervous system that, with regular practice, flows into the activities of our life. It makes us more aware of how we treat ourselves so that we do not cause further injury. It is the basis for true healing.

CONCLUSION

In summary, it can be said that:

1. The slow repetitive nature of a movement performed with full attention and paced by the breath has numerous benefits:
 - a) the process of motor relearning occurs more easily;
 - b) neuromuscular relaxation is enhanced;
 - c) sympathetic dominance is decreased with correct breathing. This increases blood flow to the muscle, normalizes muscle tone and optimizes cellular repair; and
 - d) mental focus is improved.
2. There is improved ability to re-educate muscles and stabilize segments through increased kinesthetic and sensory awareness.
3. New patterns of movement and posture are more readily integrated into daily activities.
4. Breathing patterns are corrected to provide a foundation for improved health.
5. Recovery time is shorter with reduced recurrence of pain through greater awareness of behavior that causes pain (physical and cognitive).
6. Stimulus to the tactile, vestibular, and proprioceptive centers benefits the entire nervous system and affects emotional well being.
7. By conditioning the nervous system to a state of restful alertness with a regular home program, the effects of meditation become cumulative and affect our moment-to-moment activities and relationships.
8. With fewer "I-have-to-do-it" moments, there are greater options for directing one's life.
9. Performed regularly, a therapeutic program of Yoga can stabilize the body and mind. Performance is optimized and quality of life is improved.

Through the ages and in many cultures, it has been said that true healing must begin within. It begins when we realign our activities, speech, and thoughts with our highest values and when we re-establish our priorities. The mind plays an important role in this. By making small changes in the way we

evaluate and treat clients, we can effect changes in the mind that empower a person more fully to express his or her potential. Through regular Yoga practice, it is possible to add quality to our own life and then to transfer this experience to our clients by using an integrative approach to healing.

This article is excerpted with permission from Marie Janisse's forthcoming book, *The Therapeutic Use of Yoga in Rehabilitation*.

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