

Emmey Ripoll · Dawn Mahowald

## Hatha Yoga therapy management of urologic disorders

Published online: 24 October 2002  
© Springer-Verlag 2002

**Abstract** Hatha Yoga (often referred to as “yoga”) is an ancient type of physical and mental exercise that has been used as a therapeutic modality in traditional Indian medicine for centuries. Yoga as a complementary modality in western medicine is more recent and continues to grow. Chronic urologic disorders are often difficult to diagnose because their presentation mimic other medical conditions and are often a diagnosis of exclusion. Treatment is also frustrating because the more traditional treatments are often unsuccessful in managing chronic disorders. Health care practitioners are often forced to look elsewhere for other modalities to provide pain relief and improve quality of life. Hatha Yoga is one of these modalities which has been extremely useful to many patients in reducing the suffering seen with chronic urologic conditions such as: prostatodynia, chronic orchitis, chronic epididymitis, vulvodinia, interstitial cystitis, etc.

**Keywords** Yoga · Prostatodynia · Chronic orchitis · Chronic epididymitis · Vulvodinia · Interstitial cystitis

---

Historically, many have incorrectly defined yoga as a tool used solely to benefit one’s spiritual, religious, and psychological health. Cautious exploration over recent decades has brought to light the benefits that yoga positions (asanas) and deep breathing (pranayama) – when used as a light to moderate exercise program (see Table 1) – have on those afflicted with chronic disorders.

However, while one can safely claim that yoga is no longer seen as “quackery,” the full beneficial *effect* yoga *can have* on those suffering from chronic disorders has yet to be accepted or *fully* explored.

The psychological benefits of yoga have been documented in a recent study comparing two groups of females: one group practicing yoga, the other group remaining in a relaxed state of reading. Those practicing yoga were found to show higher scores on life satisfaction, and lower scores in excitability, aggressiveness, emotionality, and somatic complaints [14].

There are also physiological benefits to patients using yoga as light to moderate exercise including increased aerobic capacity [10] and increased muscle strength. In addition, with over 200 individual exercises with multiple variations [6], yoga is highly adaptable to the individual patient’s medical situation. It is starting to be used by medical professionals in very targeted recovery programs such as recovery from back surgery [13] and as one part in comprehensive health management programs such as heart disease management programs by Dr. Dean Ornish [11]. While not claiming that yoga should be an alternative to conventional medicine, yoga should be accepted as a tool that speeds the recovery of the patient by strengthening the physiology and psychological health of the afflicted.

---

### Hatha Yoga and health

Considering that chronic disorders frequently cause the patient psychological/emotional pain stemming from an unnecessary sense of embarrassment, one must stress the analogous proof yoga has on correcting levels of stress. In our experience, asanas have been a great self-help method to teach patients. These techniques provide the patient with a sense of independence which is often lacking in those suffering from chronic disorders. Interestingly, recent studies have been conducted which demonstrate increased endorphin [5], and dopamine [7] release in people practicing yoga. Changes in EEG

---

E. Ripoll (✉)  
615 S. Mill St., Fergus Falls, MN 56537, USA  
E-mail: emiliaripoll@hotmail.com  
Tel.: +1-217-739-6832

D. Mahowald  
Alandi Ashram and School of Ayurveda,  
1890 Lehigh St, Boulder,  
Colorado 80303, USA

**Table 1** Example exercise program

Warm-up exercises	Resting pose, lying on back Neck rolls, lying on back Ankle circles, lying on back, leg extended upwards Side-to-side back rocks Cat pose Cat-cow pose Shoulder circles
Main exercises	Refer to Table 1 and choose exercises according to suspected diagnosis
Cool down exercises	Resting pose, lying flat on back Resting pose, lying on back with lower legs resting on chair
Deep breathing exercises	Basic deep breathing, lying flat on back Alternate nostril breath, sitting

patterns have also been observed [1], thus making yoga a useful modality for seizure control [17].

Dr. Karen Koffler, working with inverted asana postures believes that, 'If there is increased blood flow to the area, there will be increased bioavailability of oxygen and glucose – the two most important metabolic substrates for the brain. It follows, then, that those cells bathed in a solution that is rich in the building blocks required for the creation of neurotransmitters like norepinephrine, dopamine, and serotonin, will be better able to produce these chemicals [16].' In further studies, Dr. Don Glassey theorizes that since the practice of yoga places a great emphasis on the health of the spine, it is natural that proper spine function will increase the flow of cerebrospinal fluid [4]. In addition to the psychoemotional benefits and neurotransmitter changes, yoga has been linked to improve physiological changes of the cardiopulmonary systems. In a study of two groups of cardiac patients, both of which modified risk factors and diet, reductions in the levels of serum total cholesterol, LDL cholesterol, and triglyceride levels were noted in those practicing yoga, as well as a reduction in angiographic lesions [9]. In another study of 287 patients practicing yoga, a statistically significant ( $P < 0.001$ ) increase in vital capacity was observed [3]. Further studies have shown improvements in lung function (FEV1, and PEFr) as well as improvement in dyspnea [2].

In these few instances, yoga has been linked to benefit both the psychoemotional and physiological health of the patient.

### Hatha Yoga in urology

Urological disorders of chronic nature, such as: interstitial cystitis, vulvodynia, chronic orchitis, prostatodynia, chronic epididymitis and incontinence are associated and aggravated by poor musculoskeletal, neural and myofascial function of the back and/or pelvis. At this point it is difficult to separate the exact etiology of these conditions, since oftentimes these conditions are multifactorial.

Pelvic floor dysfunction contributes to many urological conditions. The two major categories are pelvic floor hypertonicity and hypotonicity. Pelvic floor

hypotonicity is often associated with urinary incontinence and can be addressed by asanas which strengthen both muscular layers of the pelvic floor (deep layer or levator ani and the superficial layer of the urethral and anal sphincters). Pelvic floor hypertonicity is addressed with asanas that will relax both layers of the pelvic floor. More importantly, many of these asanas will help bring muscle awareness to the patient and help them learn to self correct.

Because the pelvic floor is not working in isolation, any rotation or dysfunction of the lower back, bony pelvis, and its joints will also result in pathology, so yoga programs have to be designed to maintain balance of the major muscles which influence the pelvic structure and the lower back. Either sacroiliac joint dysfunction or symphysis pubis dysfunction can both result in pelvic floor hypertonicity and can aggravate the chronic conditions mentioned above.

Thus, improving musculoskeletal alignment and myofascial function through yoga practice can greatly improve standard western medical treatment results. Table 2 has clinical presentation and sample beneficial postures for urologic conditions.

### Program design

As with any other therapeutic physical exercise program yoga must always address the medical history of the patient. Prior to starting, the physician and the yoga professional should take into consideration patient factors such as body type/weight, age, health, overall physical fitness of the patient and pre-existing surgical condition such as: traumatic deliveries, bladder suspensions, hysterectomies, prostate surgery, etc. In cases of chronic disorders, one should not blindly start a therapeutic yoga program and should structure a program that addresses a patient's physical and emotional limitations.

Once a patient's basic physical condition has been addressed, a yoga program can be structured which affords the patient the ability to reduce symptoms in the privacy of their homes. Since yoga does not require special machinery, heavy lifting, and very little expense, our experience has been that many patients report a high degree of satisfaction with yoga as exercise.

**Table 2** Clinical presentation and sample beneficial postures for urologic conditions [8,12]

Pelvic floor hypotonicity	Stress urinary incontinence, cystocele, rectocele, vaginal prolapse, uterine prolapse	Frog pose (with kegels)	Strengthen pelvic floor, realignment of coccyx and sacroiliac joint, loosens tight pelvic muscles		
		Sitting forward bend	Improves back muscle strength, increases back flexibility, increases flexibility in hips		
		Shoulder stand/fish pose set	Strengthens pelvic floor muscles (PFM), increases neuro-transmitter production, decreases muscle tension in back, greatly increases torso muscle strength		
		Locust pose	Increases upper body strength and back flexibility		
		Plank pose	Increases upper body strength, especially good for patients who are very weak in their upper body		
		Bird pose	Improves hip and shoulder flexibility		
		Seated twist	Improves hip and spine flexibility		
		Basic deep breathing, lying flat on back	Provides cool down, helps reduce tension		
		Resting pose, lying flat on back	Provides cool down, helps reduce tension		
		Pelvic floor hypertonicity	Prostatodynia, vulvodynia, chronic orchitis, chronic epididymitis, interstitial cystitis	Bridge pose	Restore flexibility in hips, strengthen torso and leg muscles
				Cobra pose	Reduce muscle tension in back
				Cow pose	Relax tension in hips, back and shoulders
				Crocodile pose	Increase upper body and back strength
Downward facing dog	Improve sacroiliac joint function, strengthen upper body				
Frog pose	Realign of sacroiliac and coccyx, stretch and relieve tension in PFM				
Half-shoulder stand/fish pose set	Teaches pelvic floor muscle awareness, decreases tension in lower back and PFM, strengthens torso muscles				
Kegels (very gentle version)	Decrease muscle tension in hips/pelvis				
Locust pose	Increases upper body strength and back flexibility				
Side leg lifts	Reduces side hip and waist muscle tension, strengthens side hip and waist muscles, stretches PFM				
Squatting pose	Greatly increase hip, pelvic, and leg strength and flexibility				
Twist (seated)	Improves hip and spine flexibility				
Wind reliving	Improves leg, hip and pelvic flexibility Aids in concentration, helps reduce stress				
Alternate nostril breathing, sitting	Cool down, helps reduce stress, releases tension in lower back and pelvic muscles				

### Sample program

A good basic yoga program follows the basics of any good program; warm-up exercises, main exercises, cool down exercises. It differs in that it includes deep breathing exercises. These are essential as they help reduce stress while improving oxygenation that will aid in the release of endorphins and they help improve cardiopulmonary function (See Table 1).

### Summary

Hatha Yoga is not an alternative to traditional treatments. Rather, it should accompany long-standing methods, providing the patient with another potential tool to benefit their overall health. Yoga is a useful complimentary therapy in the treatment of chronic urological conditions. Regular practice of yoga has been shown to increase endorphin release, resulting in improved pain control and stress reduction. Since reduced levels of stress have been noted, often, the patient

practicing yoga changes their perception of stress, which results in an increased sense of well-being. Often, the practitioner of yoga feels a sense of accomplishment and control over their chronic pain, which, until they began practicing yoga was absent in their lives. Improved musculoskeletal function has also been linked to the practice of yoga providing the patient a legitimate exercise format to regain or keep muscle strength and aerobic capacity.

### References

1. Arambula P, Peper E, Kawakami M, Gibney KH (2001) The physiological correlates of Kundalini yoga meditation: a study of a yoga master. *Appl Psychophysiol Biofeedback* 26:147–153
2. Behera D (1998). Yoga therapy in chronic bronchitis. *J Assoc Physicians India* 46:207–208
3. Birkel DA, Edgren L (2000) Hatha Yoga: improved vital capacity of college students. *Altern Ther Health Med* 6:53–63
4. Glassey D (2002) Why Yoga Works. [www.healtough.com/csft/yoga.html](http://www.healtough.com/csft/yoga.html)
5. Hartle JL, Eifert GH, Smith R(1995) The effects of running and meditation on beta-endorphin, corticotropin-releasing hormone and cortisol in plasma and on mood. *Biol Psychol* 40:251–265

6. Iyengar BKS (1979) *Light on Yoga*. Schocken, New York, pp 61–448
7. Kjaer TW, Bertlesen C, Piccini P, Brooks D, Alving G, Lou HC (2002) Increased dopamine tone during meditation induced change of consciousness. *Brain Res Cogn Brain Res* 13:255–259
8. Mahowald D, Ripoll E (2000) Application of Hatha Yoga asanas to chronic cystitis using Western medical, Chinese acupuncture and Ayurvedic points of view. *Int J Yoga Therapy*
9. Manchanda SC, Narang R, Reddy KS, Sachdeva U, Prabhakaren D, Dharmanand S, Rajani M, Bijlani R (2001) Retardation of coronary atherosclerosis with yoga lifestyle intervention. *J Assoc Physicians India* 48:687–694
10. Ray US, Sinha B, Tomer OS, Pathak A, Dasgupta T, Selva-murthy W (2002) Aerobic capacity & perceived exertion after practice of Hatha yogic exercises. *Exercise Physiology Laboratory, Defense Institute of Physiology & Allied Sciences, Lucknow Road, Timarpur, Delhi 110054, India. Indian J Med Res* 114:215–221
11. Ornish D (1994) *Stress, diet & your heart*. Ballantine, New York
12. Ripoll E, Mahowald D (2003) *Cystitis – a time to heal with yoga and acupuncture: an eight week exercise program with special information on interstitial cystitis & urethral syndrome*. 1st Books Library, Bloomington, IN, USA, [www.1stlibrary.com](http://www.1stlibrary.com). Available Jan 2003
13. Schatz MP (1992) *Back care basics – a doctor’s gentle yoga program for back and neck pain relief*. Rodmell, Berkeley, Calif., USA, pp 21–36
14. Schell FJ, Allolio B, Schonecke OW (1994) Physiological and psychological effects of hatha yoga exercise in healthy women. *Int J Psychosom* 41:46–52
15. Tran MD, Holly RG, Lashbrook J, Amsterdam EA (2001) Effects of hatha yoga practice on the health-related aspects of physical fitness. Department of Exercise Science, University of California at Davis, Davis, CA 95616. *Prev Cardiol*. 4:165–170
16. Weintraub Amy (2002) The natural Prozac: [www.yogajournal.com/health/133](http://www.yogajournal.com/health/133)
17. Yadri N (2001) Yoga for control of epilepsy. *Seizure* 10:7–12

Copyright of *World Journal of Urology* is the property of Kluwer Academic Publishing / Academic and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.