

Yoga for Digestive Disorders Dr.R.Nagarathna, MD, FRCP and Dr. HR Nagendra, ME, Ph.D

Just like the face turns red when one is angry, the stomach lining turns red too. And it pours out large amounts of acid and enzymes. Anger, fear, jealousy, anxiety, tension etc. are emotions which influence not only the quality and quantity of secretions in the stomach and intestine, but also alter the blood flow and the motility of the intestine. Many ailments of the digestive system starting from the mouth to the rectum are traceable to stress and a modern lifestyle.

An excellent report that unravels the working of the digestive system and firmly establishes the desirability of definite yoga practices for the healthy working of the digestive system.

Presented with simplicity are detailed directions for various yoga positions and breathing techniques to assist digestive health

Sacred Pathways Magazine LeRoy Malouf, Applied Behavioral Scientist from MIT and developer of the "Energetic Well Being Process" (EWBP) says

A core element in envisioning one's health and wellness is in the learning to live in harmony with one's own energy. What we call energy, "chi" or "prana", is the neutral divine intelligence, the primal force behind all living processes. Scientific explorations have and will unravel profound insights about the nature of energy but will not create it nor renew it, because it is in the state of Being, while the mind studying it is in a state of becoming. Energy flows from moment to moment, moving from one form to another, remaining constant in the now, while the mind tends to live either in the past or the future. Our perceptions, thoughts, emotions and feelings shape our lives from the quantum level, which connects to indivisible energy. Physicists have recognized that tiny particles such as atoms, protons and neurons determine the behaviors of the individual made from these particles. Today, the Super string theory suggests that the fundamental constituents of the universe aren't particles at all. In a way, the latest scientific findings echoes with ancient wisdom: we live in 'pure energy'. It is when we are able to shift energy that the quantum particles shift, thereby creating new possible momentums for ourselves.

According to the Society for Human Resource Management, "more than 60 per cent of companies offer wellness programs, up from 53 per cent in 2001". Moreover, 55 per cent of Americans are choosing alternative healthcare practices. While yoga has regained its place in our world, companies such as Reebok International Ltd. and Harvard Pilgrim Health Care are confident to propose meditation to their employees as an antidote to stress. Existence, as an evolutionary process will go on reconditioning our values and experiences for refinement's sake. Centered in the tides of changes, the "Energetic Well Being Process", along with other modalities which emphasize the whole person, originates today a key to tomorrow's health.

EFFECT OF SIX WEEKS OF SHAVASAN TRAINING ON SPECTRAL MEASURES OF SHORT-TERM HEART RATE VARIABILITY IN YOUNG HEALTHY VOLUNTEERS

Department of Physiology, Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER) Pondicherry - 605 006

In an earlier work from our laboratory, we have demonstrated the effectiveness of shavasan, a yogic relaxation technique, in producing psychosomatic relaxation (1). The blood pressure (BP) lowering effect of shavasan has been demonstrated previously in subjects with hypertension (2). The cardiovascular effects of shavasan may at least in part be due to its effects on autonomic regulation of heart rate and blood pressure. Heart rate variability (HRV) analysis has come to be increasingly used in physiologic research studies as a noninvasive tool to examine the autonomic regulation of cardiovascular function. It describes the variability in instantaneous heart rates and assesses modulation of cardiac cycle time by intrinsic biological rhythms (3, 4, 5). Oscillations in instantaneous heart rates occur at high frequencies (0.15-0.40 Hz), low frequencies (0.04-0.15 Hz) and at very low frequencies (0.003-0.04 Hz) due to different physiologic mechanisms and these have been inferred from pharmacologic studies (3, 4, 5, 6). For a detailed discussion of the physiologic foundations of HRV, consult Akselrod (3, 4), Eckberg (5) and Pagani et al (6). Time

domain analysis is a simple method to quantify overall HRV whereas power spectral analysis provides a means of studying different mechanisms responsible for variability in instantaneous heart rates. Raghuraj et al have studied the effect of two yogic breathing techniques on heart rate variability (7). The effect of shavasana training on HRV has not been studied so far. Hence, we planned to determine whether shavasana training of short duration has any effect on the low frequency and high frequency components of heart rate variability.

MODULATION OF CARDIOVASCULAR RESPONSE TO EXERCISE BY YOGA TRAINING

Department of Physiology, **Department of Social and Preventive Medicine, Jawaharlal Institute of Postgraduate Medical Education & Research (JIPMER), Pondicherry – 605 006, India

This study reports the effects of yoga training on cardiovascular response to exercise and the time course of recovery after the exercise. Cardiovascular response to exercise was determined by Harvard step test using a platform of 45 cm height. The subjects were asked to step up and down the platform at a rate of 30/min for a total duration of 5 min or until fatigue, whichever was earlier. Heart rate (HR) and blood pressure response to exercise were measured in supine position before exercise and at 1, 2, 3, 4, 5, 7 and 10 minutes after the exercise. Rate-pressure product [$RPP = (HR \times SP)/100$] and double product ($DoP = HR \times MP$), which are indices of work done by the heart were also calculated. Exercise produced a significant increase in HR, systolic pressure, RPP & DoP and a significant decrease in diastolic pressure. After two months of yoga training, exercise induced changes in these parameters were significantly reduced. It is concluded that after yoga training a given level of exercise leads to a milder cardiovascular response, suggesting better exercise tolerance.

Yoga and Health Newsletter Arun Goel

Accumulation of toxins in our bodies creates free radicals. Which are highly unstable molecules attempting to regain stability by devouring the electrons from surrounding molecules leading to a breakdown in the human molecule and creating a cascading affect to our cells and inevitably our health? Also, Depending on what we consume our food choices may lead our bodies to secrete hormones that can leave toxins behind. Its necessary to find a way for our bodies to rid itself of these toxins so we can restore back to normal functions. Reversing the effects of these dangerous free radicals is necessary to preserve our health. Chelation is the process of tears, sneezing, mucus, sweat, urine, feces, and menstruations(for women) that is naturally carried out by our bodies. If we find a way to peak this natural performance our bodies could be free of toxins that lead to disease.

Yoga methods and techniques work exactly this way. Hatha fulfills detoxification through Asanas, Pranyama through Breathing, (Mudras and Bandhas). As well as, Kapalbhathi which helps increase oxygenated blood flow to the brain to help purify the mind. We should use the knowledge of our bodies and the practice of yoga to cultivate a natural cleansing method or response because our bodies respond better to natural forms of therapy.

Meditation: Good for the arteries – American Heart Association Journal

Transcendental Meditation may help reduce atherosclerosis, risk of heart attack and stroke. The reductions they cause are comparable to those achieved by lipid lowering medications or intensive lifestyle modifications. Cardiovascular disease is associated with psychological stress. Including hypertension, oxidized lipids, stress hormones and psychological stress. Breathing techniques calm these flare ups of restrictive activity. With certain holistic practices set forward, restful alertness experienced during the TM technique may trigger self repair homeostatic mechanisms in the body that result in the reduction of atherosclerosis (**Atherosclerosis** (ath-er-o-skler-O-sis) is a disease in which plaque (plak) builds up on the insides of your arteries.)

Clinical case report: efficacy of yogic techniques in the treatment of obsessive compulsive disorders," by D.S. Shannahoff-Khalsa and L.R. Beckett (Research Group for Mind-Body Dynamics, University of California, San Diego, La Jolla Calif.), in *International Journal of Neuroscience*, March 1996.

Abstract

The aim of this study was to investigate the clinical efficacy of yogic techniques in the treatment of eight adults with obsessive-compulsive disorder (OCD). A specific yogic breathing pattern has been prescribed for the treatment of OCD, as well as others for treating generalized anxiety. A one year course of therapy was followed. Subjects improved on the Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) comparing baseline with three, six, nine, & 12 month results (one-way ANOVA for repeated measures, $F(4,12) = 3.343$, $p < .001$), anxiety ($t = 3.167$, $p < .051$), and global severity indexes ($t = 7.314$, $p = .005$). Perceived Stress Scale scores showed significant improvement for the five test periods (one-way ANOVA for repeated measures, $F(4,12) = 9.114$, $p = .005$).

"Yoga breathing through a particular nostril increases spatial memory scores without lateralized effects," by Naveen KV; Nagarathna R; Nagendra HR; Telles S., of the Vivekananda Kendra Yoga Research Foundation, Bangalore, India, in *Psychol Rep*, 1997 Oct, 81:2, 555-61.

Abstract

Uninostril breathing facilitates the performance on spatial and verbal cognitive tasks, said to be right and left brain functions, respectively. Since hemispheric memory functions are also known to be lateralized, the present study assessed the effects of uninostril breathing on the performance in verbal and spatial memory tests. School children ($N = 108$ whose ages ranged from 10 to 17 years) were randomly assigned to four groups. Each group practiced a specific yoga breathing technique: (i) right nostril breathing, (ii) left nostril breathing, (iii) alternate nostril breathing, or (iv) breath awareness without manipulation of nostrils. These techniques were practiced for 10 days. Verbal and spatial memory was assessed initially and after 10 days. An age-matched control group of 27 were similarly assessed. All 4 trained groups showed a significant increase in spatial test scores at retest, but the control group showed no change. Average increase in spatial memory scores for the trained groups was 84%. It appears yoga breathing increases spatial rather than verbal scores, without a lateralized effect.

Study of pulmonary and autonomic functions of asthma patients after yoga training," by A.A. Khanam, U. Sachdeva, R. Guleria and K.K. Deepak (Department of Physiology, All India Institute of Medical Science, New Delhi) in *Indian Journal of Physiology and Pharmacology*, Oct. 24, 1996.

Abstract

"The concept of yoga is helpful for the treatment of Bronchial Asthma", has created a great interest in the medical research field. In order to investigate whether autonomic functions and pulmonary functions are improved in asthma patients after short term yoga training, a study was conducted with nine diagnosed bronchial asthma patients. Yoga training was given for seven days in a camp in Adhyatma Sadhna Kendra, New Delhi. The autonomic function tests to measure the parasympathetic reactivity (Deep Breathing test, Valsalva Manoeuvre), Sympathetic reactivity (Hand Grip test, Cold Pressure test), and pulmonary function tests FVC, FEV1, PEFR, PIF, BHT and CE were recorded before and after yoga training. The resting heart rate after yoga training ($P < 0.05$) was significantly decreased ($89.55 \pm 18.46/\text{min}$ to $76.22 \pm 16.44/\text{min}$). The sympathetic reactivity was reduced following yoga training as indicated by significant ($P < 0.01$) reduction in DBP after HGT. There was no change in parasympathetic reactivity. The FVC, FEV1, PEFR did not show any significant change. The PIF ($P < 0.01$), BHT ($P < 0.01$) and CE ($P < 0.01$) showed significant improvement. The results closely indicated

the reduction in sympathetic reactivity and improvement in the pulmonary ventilation by way of relaxation of voluntary inspiratory and expiratory muscles. The "comprehensive yogic life style change programme for patients of Bronchial Asthma" have shown significant benefit even within a short period."

"Comparing Hatha yoga with dynamic group psychotherapy for enhancing methadone maintenance treatment: a randomized clinical trial," by Shaffer HJ; LaSalvia TA; Stein JP, of Division on Addictions, Harvard Medical School, Boston, MA 02115, USA, in *Altern Ther Health Med*, 1997 Jul, 3:4, 57-66.

Abstract

BACKGROUND: As more methadone treatment programs are funded in an attempt to curb substance abuse and HIV infection among i.v. drug users, more cost effective treatment approaches are being sought. **OBJECTIVES:** To investigate whether clients in outpatient methadone maintenance treatment who practice weekly Hatha yoga in a group setting experience more favorable treatment outcomes than those who receive conventional group psychodynamic therapy. **METHODS:** After a 5-day assessment period, 61 patients were randomly assigned to methadone maintenance enhanced by traditional group psychotherapy (ie, conventional methadone treatment) or an alternative Hatha yoga therapy (ie, alternative methadone treatment). Patients were followed for 6 months and evaluated on a variety of psychological, sociological, and biological measures. The revised Symptom Check List provided the primary psychological measures; the Addiction Severity Index provided various indices of addictive behaviors. **RESULTS:** The evidence revealed that there were no meaningful differences between traditional psychodynamic group therapy and Hatha yoga presented in a group setting. Both treatments contributed to a treatment regimen that significantly reduced drug use and criminal activities. Psychopathology at admission was significantly related to program participation regardless of treatment group. **DISCUSSION:** In addition to examining the characteristics of patients who present for treatment, this study identifies unexpected staff issues that complicate the integration of alternative and traditional treatment strategies. **CONCLUSION:** Alternative methadone treatment is not more effective than conventional methadone treatment, as originally hypothesized. However, some patients may benefit more from alternative methadone treatment than conventional methadone treatment. Additional research is necessary to determine characteristics that identify patients who might benefit from alternative methadone treatment.

Rapid stress reduction and anxiolysis among distressed women as a consequence of a three-month intensive yoga program

Andreas Michalsen¹ABDEF, Paul Grossman²CDE, Ayhan Acil¹BDF, Jost Langhorst¹AE,

Rainer Lüdtke³ACD, Tobias Esch⁴DE, George B. Stefanos⁵DE, Gustav J. Dobos¹AG

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Emotional distress is an increasing public health problem and Hatha yoga has been claimed to induce stress reduction and empowerment in practicing subjects. We aimed to evaluate potential effects of Iyengar Hatha yoga on perceived stress and associated psychological outcomes in mentally distressed women.

Material/Methods: A controlled prospective non-randomized study was conducted in 24 self-referred female subjects (mean age 37.9±7.3 years) who perceived themselves as emotionally distressed. Subjects were offered participation in one of two subsequent 3-months yoga programs. Group 1 (n=16) participated in the first class, group 2 (n=8) served as a waiting list control. During the yoga course, subjects attended two-weekly 90-min Iyengar yoga classes. Outcome was assessed on entry and after 3 months by Cohen Perceived Stress Scale, State-Trait Anxiety Inventory, Profile of Mood States, CESD-Depression Scale, Bf-S/Bf-S' Well-Being Scales, Freiburg Complaint List and ratings of physical well-being. Salivary cortisol levels were measured before and after an evening yoga class in a second sample.

Results: Compared to waiting-list, women who participated in the yoga-training demonstrated pronounced and significant improvements in perceived stress ($P<0.02$), State and Trait Anxiety ($P<0.02$ and $P<0.01$, respectively), well-being ($P<0.01$), vigor ($P<0.02$), fatigue ($P<0.02$) and depression ($P<0.05$). Physical well-being also increased ($P<0.01$), and those subjects suffering from headache or back pain reported marked pain relief. Salivary cortisol decreased significantly after participation in a yoga class ($P<0.05$).

Conclusions: Women suffering from mental distress participating in a 3-month Iyengar yoga class show significant improvements on measures of stress and psychological outcomes. Further investigation of yoga with respect to prevention and treatment of stress-related disease and of underlying mechanism is warranted.

Changes in Spatio Temporal Electroencephalogram Power Spectral Patterns in Isha Yoga Practices

Gracee Agrawal¹, Jayashree Santhosh², Manvir Bhatia², Nandeeshwara S.B.² and Sneh Anand¹

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An effort was made to analyze the cerebral electrical activity of nine experienced IshaYoga practitioners of 23-29 years of age (5F and 4M) by means of electroencephalographic (EEG) recordings. The EEG data was recorded using 19 electrodes, before and after Isha Yoga Practices, which are

considered to be very powerful for stress healing and relaxation. A complete spectral analysis was done to analyze the changes in distribution of delta, theta, alpha and beta rhythms. The analysis of data collected after Yoga practice showed a significant increase in the delta band power accompanied by an increase in theta band power, in comparison with data collected before start of practices. The increase of delta and theta rhythms was maximum along the midline brain region, spreading towards both the sides, more on the right hemisphere than in the left. There was also a marked decrease in beta band power throughout the entire hemisphere and a slight decrease in alpha band power in parietal, temporal and occipital regions. These results clearly show higher level of mental consciousness and lower level of physical consciousness after Isha Yoga practices.

Antidepressant efficacy of Sudarshan Kriya Yoga (SKY) in melancholia: a randomized comparison with electroconvulsive therapy (ECT) and imipramine

N. Janakiramaiah, B. N. Gangadhar, P. J. Naga Venkatesha Murthy, M. G. Harish, D. K. Subbakrishna and A. Vedamurthachar

, January-March 2000, Pages 255-259

Background: Sudarshan Kriya Yoga (SKY) is a procedure that involves essentially rhythmic hyperventilation at different rates of breathing. The antidepressant efficacy of SKY was demonstrated in dysthymia in a prospective, open clinical trial. This study compared the relative antidepressant efficacy of SKY in melancholia with two of the current standard treatments, electroconvulsive therapy (ECT) and imipramine (IMN). *Methods:* Consenting, untreated melancholic depressives ($n=45$) were hospitalized and randomized equally into three treatment groups. They were assessed at recruitment and weekly thereafter for four weeks. *Results:* Significant reductions in the total scores on Beck Depression Inventory (BDI) and Hamilton Rating Scale for Depression (HRSD) occurred on successive occasions in all three groups. The groups, however, did not differ. Significant interaction between the groups and occasion of assessment occurred. At week three, the SKY group had higher scores than the ECT group but was not different from the IMN group. Remission (total HRSD score of seven or less) rates at the end of the trial were 93, 73 and 67% in the ECT, IMN and SKY groups, respectively. No clinically significant side effects were observed. *Discussion:* Within the limitations of the design (lack of double blind

conditions), it can be concluded that, although inferior to ECT, SKY can be a potential alternative to drugs in melancholia as a first line treatment.

Psychological adjustment and sleep quality in a randomized trial of the effects of a Tibetan yoga intervention in patients with lymphoma

Lorenzo Cohen, Ph.D. 1 2 *, Carla Warneke, M.P.H. 3, Rachel T. Fouladi, Ph.D. 4, M. Alma Rodriguez, M.D. 5, Alejandro Chaoul-Reich 6
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Research suggests that stress-reduction programs tailored to the cancer setting help patients cope with the effects of treatment and improve their quality of life. Yoga, an ancient Eastern science, incorporates stress-reduction techniques that include regulated breathing, visual imagery, and meditation as well as various postures. The authors examined the effects of the Tibetan yoga (TY) practices of Tsa lung and Trul khor, which incorporate controlled breathing and visualization, mindfulness techniques, and low-impact postures in patients with lymphoma.

Thirty-nine patients with lymphoma who were undergoing treatment or who had concluded treatment within the past 12 months were assigned to a TY group or to a wait-list control group. Patients in the TY group participated in 7 weekly yoga sessions, and patients in the wait-list control group were free to participate in the TY program after the 3-month follow-up assessment.

Eighty nine percent of TY participants completed at least 2-3 three yoga sessions, and 58% completed at least 5 sessions. Patients in the TY group reported significantly lower sleep disturbance scores during follow-up compared with patients in the wait-list control group (5.8 vs. 8.1; $P < 0.004$). This included better subjective sleep quality ($P < 0.02$), faster sleep latency ($P < 0.01$), longer sleep duration ($P < 0.03$), and less use of sleep medications ($P < 0.02$). There were no significant differences between groups in terms of intrusion or avoidance, state anxiety, depression, or fatigue.

The participation rates suggested that a TY program is feasible for patients with cancer and that such a program significantly improves sleep-related outcomes. However, there were no significant differences between groups for the other outcomes. Cancer 2004. © 2004 American Cancer Society.

Acceptance and Commitment Therapy and yoga for drug-refractory epilepsy: A randomized controlled trial

Tobias Lundgren ^{1,2}, JoAnne Dahl ¹, Nandan Yardi ¹ and Lennart Melin ¹
¹science direct

There is a need for controlled outcome studies on behavioral treatment of epilepsy. The purpose of this study was to evaluate Acceptance and Commitment Therapy (ACT) and yoga in the treatment of epilepsy.

Methods

The design consisted of a randomized controlled trial with repeated measures ($N = 18$). All participants had an EEG-verified epilepsy diagnosis with drug-refractory seizures. Participants were randomized into one of two groups: ACT or yoga. Therapeutic effects were measured using seizure index (frequency \times duration) and quality of life (Satisfaction with Life Scale, WHOQOL-BREF). The treatment protocols consisted of 12 hours of professional therapy distributed in two individual sessions, two group sessions during a 5-week period, and booster sessions at 6 and 12 months posttreatment. Seizure index was continuously assessed during the 3-month baseline and 12-month follow-up. Quality of life was measured after treatment and at the 6-month and 1-year follow-ups.

Results

The results indicate that both ACT and yoga significantly reduce seizure index and increase quality of life over time. ACT reduced seizure index significantly more as compared with yoga. Participants in both the ACT and yoga groups improved their quality of life significantly as measured by one of two quality-of-life instruments. The ACT group increased their quality of life significantly as compared with the yoga group as measured by the WHOQOL-BREF, and the yoga group increased their quality of life significantly as

compared with the ACT group as measured by the SWLS.

Conclusions

The results of this study suggest that complementary treatments, such as ACT and yoga, decrease seizure index and increase quality of life.

THE RELATIONSHIP OF YOGA, BODY AWARENESS, AND BODY RESPONSIVENESS TO SELF-OBJECTIFICATION AND DISORDERED EATING

Jennifer J. Daubenmier

Psychology of Women Quarterly

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Study 1 tested whether yoga practice is associated with greater awareness of and responsiveness to bodily sensations, lower self-objectification, greater body satisfaction, and fewer disordered eating attitudes. Three samples of women (43 yoga, 45 aerobic, and 51 nonyoga/nonaerobic practitioners) completed questionnaire measures. As predicted, yoga practitioners reported more favorably on all measures. Body responsiveness, and, to some extent, body awareness significantly explained group differences in self-objectification, body satisfaction, and disordered eating attitudes. The mediating role of body awareness, in addition to body responsiveness, between self-objectification and disordered eating attitudes was also tested as proposed in objectification theory (). Body responsiveness, but not awareness, mediated the relationship between self-objectification and disordered eating attitudes. This finding was replicated in Study 2 in a sample of female undergraduate students. It is concluded that body responsiveness and, to some extent, body awareness are related to self-objectification and its consequences.

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Andreas Michalsen¹ABDEF, Paul Grossman²CDE, Ayhan Acil¹BDF, Jost Langhorst¹AE, Rainer Lütke³ACD, Tobias Esch⁴DE, George B. Stefano⁵DE, Gustav J. Dobos¹AG

Background: Emotional distress is an increasing public health problem and Hatha yoga has been claimed to induce stress reduction and empowerment in practicing subjects. We aimed to evaluate potential effects of Iyengar Hatha yoga on perceived stress and associated psychological outcomes in mentally distressed women.

Conclusions: Women suffering from mental distress participating in a 3-month Iyengar yoga class show significant improvements on measures of stress and psychological outcomes. Further investigation of yoga with respect to prevention and treatment of stress-related disease and of underlying mechanism is warranted.

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Progressive muscle relaxation, yoga stretching, and ABC relaxation theory

Shahyad Ghoncheh, Jonathan C. Smith

Roosevelt University Stress Institute

This study compared the psychological effects of progressive muscle relaxation (PMR) and yoga stretching (hatha) exercises. Forty participants were randomly divided into two groups and taught PMR or yoga stretching exercises. Both groups practiced once a week for five weeks and were given the Smith Relaxation States Inventory before and after each session. As hypothesized, practitioners of PMR displayed higher levels of relaxation states (R-States) Physical Relaxation and Disengagement at Week 4 and higher levels of Mental Quiet and Joy as a posttraining aftereffect at Week 5. Contrary to what was hypothesized, groups did not display different levels of R-States Energized or Aware. Results suggest the value of supplementing traditional somatic conceptualizations of relaxation with the psychological approach embodied in ABC relaxation theory. Clinical and research implications are discussed. © 2003 Wiley Periodicals, Inc. *J Clin Psychol.*

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Journal of Clinical Psychology

A pilot study of yoga for breast cancer survivors: physical and psychological benefits

S. Nicole Culos-Reed¹*, Linda E. Carlson^{2,3}, Lisa M. Daroux¹, Susi Hatley-Aldous

Background: Physical activity provides a number of physical and psychological benefits to cancer survivors, including lessening the impact of detrimental cancer-related symptoms and treatment side-effects (e.g. fatigue, nausea), and improving overall well-being and quality of life. The purpose of the present pilot study was to examine the physical and psychological benefits afforded by a 7-week yoga program for cancer survivors.

Results: The yoga program participants (*M* age=51.18 (10.33); 92% female) included primarily breast cancer survivors, on average 55.95 (54.39) months post-diagnosis. Significant differences between the intervention and the control group at post-intervention were seen only in psychosocial (i.e. global quality of life, emotional function, and diarrhea) variables (all *p*'s <0.05). There were also trends for group differences, in the hypothesized directions, for the psychosocial variables of emotional irritability, gastrointestinal symptoms, cognitive disorganization, mood disturbance, tension, depression, and confusion (all *p*'s <0.10). Finally, there were also significant improvements in both the program participants and the controls from pre- to post-intervention on a number of physical fitness variables.

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Psycho-Oncology

Yoga for Cancer Patients and Survivors

Julienne E. Bower, PhD, Alison Woolery, MA, Beth Sternlieb, and Deborah Garet, MPH

Background: Yoga has been practiced for thousands of years to improve physical and emotional well-being.

Empirical research on yoga has been ongoing for several decades, including several recent studies conducted with cancer patients and survivors.

Results: *Nine studies conducted with cancer patients and survivors yielded modest improvements in sleep quality, mood, stress, cancer-related distress, cancer-related symptoms, and overall quality of life. Studies conducted in other patient populations and healthy individuals have shown beneficial effects on psychological and somatic symptoms, as well as other aspects of physical function.*

Submitted January 25, 2005; accepted April 26, 2005.

Mindfulness-Based Stress Reduction in Relation to Quality of Life, Mood, Symptoms of Stress, and Immune Parameters in Breast and Prostate Cancer Outpatients

Linda E. Carlson, PhD, Michael Speca, PsyD, Kamala D. Patel, PhD and Eileen Goodey, MSW

OBJECTIVES: This study investigated the relationships between a mindfulness-based stress reduction meditation program for early stage breast and prostate cancer patients and quality of life, mood states, stress symptoms, lymphocyte counts, and cytokine production.

RESULTS: Fifty-nine and 42 patients were assessed pre- and post-intervention, respectively. Significant improvements were seen in overall quality of life, symptoms of stress, and sleep quality. Although there were no significant changes in the overall number of lymphocytes or cell subsets, T cell production of IL-4 increased and IFN- γ decreased, whereas NK cell production of IL-10 decreased. These results are consistent with a shift in immune profile from one associated with depressive symptoms to a more normal profile.

Psychosomatic Medicine 65:571-581 (2003)

Yoga for Digestive Disorders Dr.R.Nagarathna, MD, FRCP and Dr. HR Nagendra, ME, Ph.D

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"Comparing Hatha yoga with dynamic group psychotherapy for enhancing methadone maintenance treatment: a randomized clinical trial," by Shaffer HJ; LaSalvia TA; Stein JP, of Division on Addictions, Harvard Medical School, Boston, MA 02115, USA, in *Altern Ther Health Med*, 1997 Jul, 3:4, 57-66.

Abstract

BACKGROUND: As more methadone treatment programs are funded in an attempt to curb substance abuse and HIV infection among i.v. drug users, more cost effective treatment approaches are being sought. **OBJECTIVES:** To investigate whether clients in outpatient methadone maintenance treatment who practice weekly Hatha yoga in a group setting experience more favorable treatment outcomes than those who receive conventional group psychodynamic therapy. **METHODS:** After a 5-day assessment period, 61 patients were randomly assigned to methadone maintenance enhanced by traditional group psychotherapy (ie, conventional methadone treatment) or an alternative Hatha yoga therapy (ie, alternative methadone treatment). Patients were followed for 6 months and evaluated on a variety of psychological, sociological, and biological measures. The revised Symptom Check List provided the primary psychological measures; the Addiction Severity Index provided various indices of addictive behaviors. **RESULTS:** The evidence revealed that there were no meaningful differences between traditional psychodynamic group therapy and Hatha yoga presented in a group setting. Both treatments contributed to a treatment regimen that significantly reduced drug use and criminal activities. Psychopathology at admission was significantly related to program participation regardless of treatment group. **DISCUSSION:** In addition to examining the characteristics of patients who present for treatment, this study identifies unexpected staff issues that complicate the integration of alternative and traditional treatment strategies. **CONCLUSION:** Alternative methadone treatment is not more effective than conventional methadone treatment, as originally hypothesized. However, some patients may benefit more from alternative methadone treatment than conventional methadone treatment. Additional research is necessary to determine characteristics that identify patients who might benefit from alternative methadone treatment.

Acceptance and Commitment Therapy and yoga for drug-refractory epilepsy: A randomized controlled trial

Tobias Lundgren .., JoAnne Dahl , Nandan Yardi and Lennart Melin
science direct

There is a need for controlled outcome studies on behavioral treatment of epilepsy. The purpose of this study was to evaluate Acceptance and Commitment Therapy (ACT) and yoga in the treatment of epilepsy.

Methods

The design consisted of a randomized controlled trial with repeated measures ($N = 18$). All participants had an EEG-verified epilepsy diagnosis with drug-refractory seizures. Participants were randomized into one of two groups: ACT or yoga. Therapeutic effects were measured using seizure index (frequency \times duration) and quality of life (Satisfaction with Life Scale, WHOQOL-BREF). The treatment protocols consisted of 12 hours of professional therapy distributed in two individual sessions, two group sessions during a 5-week period, and booster sessions at 6 and 12 months posttreatment. Seizure index was continuously assessed during the 3-month baseline and 12-month follow-up. Quality of life was measured after treatment and at the 6-month and 1-year follow-ups.

Results

The results indicate that both ACT and yoga significantly reduce seizure index and increase quality of life over time. ACT reduced seizure index significantly more as compared with yoga. Participants in both the ACT and yoga groups improved their quality of life significantly as measured by one of two quality-of-life instruments. The ACT group increased their quality of life significantly as compared with the yoga group as measured by the WHOQOL-BREF, and the yoga group increased their quality of life significantly as

considered to be very powerful for stress healing and relaxation. A complete spectral analysis was done to analyze the changes in distribution of delta, theta, alpha and beta rhythms. The analysis of data collected after Yoga practice showed a significant increase in the delta band power accompanied by an increase in theta band power, in comparison with data collected before start of practices. The increase of delta and theta rhythms was maximum along the midline brain region, spreading towards both the sides, more on the right hemisphere than in the left. There was also a marked decrease in beta band power throughout the entire hemisphere and a slight decrease in alpha band power in parietal, temporal and occipital regions. These results clearly show higher level of mental consciousness and lower level of physical consciousness after Isha Yoga practices.

Antidepressant efficacy of Sudarshan Kriya Yoga (SKY) in melancholia: a randomized comparison with electroconvulsive therapy (ECT) and imipramine

N. Janakiramaiah, B. N. Gangadhar, P. J. Naga Venkatesha Murthy, M. G. Harish, D. K. Subbakrishna and A. Vedamurthachar

, January-March 2000, Pages 255-259

Background: Sudarshan Kriya Yoga (SKY) is a procedure that involves essentially rhythmic hyperventilation at different rates of breathing. The antidepressant efficacy of SKY was demonstrated in dysthymia in a prospective, open clinical trial. This study compared the relative antidepressant efficacy of SKY in melancholia with two of the current standard treatments, electroconvulsive therapy (ECT) and imipramine (IMN). *Methods:* Consenting, untreated melancholic depressives ($n=45$) were hospitalized and randomized equally into three treatment groups. They were assessed at recruitment and weekly thereafter for four weeks. *Results:* Significant reductions in the total scores on Beck Depression Inventory (BDI) and Hamilton Rating Scale for Depression (HRSD) occurred on successive occasions in all three groups. The groups, however, did not differ. Significant interaction between the groups and occasion of assessment occurred. At week three, the SKY group had higher scores than the ECT group but was not different from the IMN group. Remission (total HRSD score of seven or less) rates at the end of the trial were 93, 73 and 67% in the ECT, IMN and SKY groups, respectively. No clinically significant side effects were observed. *Discussion:* Within the limitations of the design (lack of double blind

STUDIES FINDINGS CORPORATE YOGA CLASSES

In survey after survey, Americans identify stress as their number one health concern today. More than 50% of adults in the U.S. report high stress on a daily basis. Untreated, stress can seriously affect performance, health, and well-being.

Mind/Body Medical Institute: <http://www.mbmi.org>

Reporting in the Journal of American Medical Association, a team of researchers from five universities argue that stress can lessen a person's immune response and that change can make them more susceptible to infectious disease. They also say that increased stress may lessen the effectiveness of certain vaccines...

The Ohio State University "Research News"

After a 5 minute period of stress induction, Yoga breathing exercises were shown to lower systolic blood pressure more quickly when compared to classical music and natural sounds. (In other words, breathing was more effective than even calming music)....

American Journal of Hypertension; http://yogamoment.com/yoga_benefits.shtml

A study done at University of California at San Francisco has confirmed that stress really does age you. Constant stress causes the telomere (tiny caps on cells chromosomes that govern cell regeneration) to get smaller. When cells telomeres get too short, the cell stops dividing and eventually dies. It is not just having stress in one's life. Shorter telomeres were also correlated with an individual's perception of their own stress levels. According to Thomas Perls, M.D at Boston University director of the New England Centurion Project "It isn't the amount of stress that matters but how you manage it".

AARP, The magazine from July/August 2005, article "10 Secrets of a good, long life".

Benefits of Corporate Yoga Programs

A regular yoga practice has shown to be effective antidote to the stress of modern-day challenges in business and in life. Improves morale in the workplace. Increases productivity and communication. Increases concentration. Decreases anxiety and tension. Improves efficiency. Reduces muscle tension and pain. Less sick time and absences. Ability to manage emotional stress

- Sleep improves and anxiety and depression decrease
- Energy level increases
- Endocrine function normalizes
- Blood pressure decreases
- Reduces Carpal Tunnel Syndrome
- EEG - alpha waves increase
- Weight normalizes
- Memory, concentration and cognitive function improves

Corporate Yoga benefits

Fewer sick days lost

Yoga revitalises the immune system and the major organs of the body, removing waste products such as alcohol up to three times more quickly. Improved immunity means less workdays lost through colds, fatigue and other non-specific illnesses.

Less back pain

An extensive number of sick days are lost because of back pain each year. The stronger, healthier backs that result from a regular yoga practice will significantly lessen the number of days missed in your company. Count them.

Better problem solving skills

Yoga harmonises the left and right sides of the brain so logical and creative thought come together as one. Flashes of inspiration should become increasingly common.

Quicker response time

By training you in the art of single pointedness, yoga immediately improves mental concentration and focus.

The ability to Stay Cool

Stress is like an enclosing wall all around us. Yogic deep breathing and yoga stretches create a genuine sense of inner and outer space. Tightening deadlines, conflict and other stresses will lose their grip as you learn to breathe and stand your ground.

Happiness

Yoga physiologically transforms apathy and depression by oxygenating the brain and increasing the endorphins in the blood.

Energy and Vitality

Yoga awakens hidden reserves of energy within your nervous, endocrine and cardiovascular systems so drowsiness and fatigue are replaced by alertness and aliveness.

Improved Self-Esteem

People work better when they feel good about themselves. By carrying out demanding physical yoga postures, your confidence will grow - even after your first-class.

Stronger Team Bonds

Taking yoga classes together is a way to build better communication and trust between members of a team and even have fun.

Journal article Summaries

Mastrangelo, M. A., Galantino, M. L., & House, L. (2007, January/February). Effects of yoga on quality of life and flexibility in menopausal women: a case series. *Explore*, 42-45.

This case series describes the impact of an Iyengar yoga program on menopausal symptoms in six women. The sequence of poses used was designed to address menstrual disorders, menopause, and pregnancy by focusing on poses that open the pelvic region. The participants attended the Iyengar yoga class two evenings a week for eight weeks in addition to a home program which consisted of a 15 minute general practice, a 30 minute general practice, or a sequence of poses designed to address certain symptoms. For example, if a subject was experiencing a hot flash they would perform a forward bend.

The results from this case study suggest that flexibility and quality of life may improve through the use of yoga intervention during the menopause transition. All six participants reported an increase in their subjective flexibility (measured by a sit and reach test). Participants made subjective comments that the program was enjoyable and there was an increase in their overall sense of well being. The yoga health model (mind, body, and spirit alignment which leads to optimal wellness) includes all dimensions of an individual's human experience and since living with menopause involves all these factors, women who practice yoga during this life cycle transition may improve both the quality of life and functional status. A more comprehensive evaluation is needed with a larger number of participants, a control condition, and a longer follow up period this study found functional changes and improvement in quality of life that should encourage further studies of yoga and menopause.

Duncan, M. D., Leis, A., & Taylor-Brown, J. W. (2008). Impact and outcomes of an Iyengar yoga program in a cancer centre. *Current Oncology*, S72-S78.

This study investigated how a 10 week Iyengar yoga program affected people who were currently being treated for cancer or had been treated for cancer in the past 6 months. The participants included 24 volunteers (23 woman, 1 man; 88% Caucasian; mean age: 49 years). The "worst symptom" (identified by each participant), quality of life, spiritual well-being, and mood disturbance were measured at intervals during the program and 6 weeks after the program. The Iyengar yoga and cancer program consisted of 10 ninety minute weekly restorative Iyengar yoga classes.

The results revealed that statistically significant improvements were reported for the “worst symptom”, quality of life, spiritual well-being, and mood disturbance during the program. At the follow up quality of life and mood disturbance improved but spiritual well-being was no longer different. Categorical aggregation of the interview data showed that participants felt that the program provided them with benefits not directly measured in the study. The Iyengar yoga program provided participants with tools to effectively manage the demands of living with cancer and its treatments. Physical benefits were reported that relieved participant’s strength and tension in areas damaged by treatment. Relaxation and mindfulness was taught that created focus and anxiety reduction.

Yang, K. (2007, October 27). A review of yoga programs for four leading risk factors of chronic diseases. *Advance Access Publication* . Pittsburg, Pennsylvania, USA: School of Nursing, University of Pittsburg.

Yoga, as a form of physical activity consisting of various postures, breathing, and meditation techniques is rapidly growing in popularity and has many health benefits. However yoga has not been widely recognized as a method to prevent and treat major chronic health conditions. The purpose of this article is to review published studies that used yoga practice to determine the effects of yoga on common health problems such as overweight, hypertension, high glucose levels and high cholesterol. A systematic search of articles from electronic databases yielded 32 articles published between 1980 and 2007 that were ultimately reviewed. The studies found yoga interventions are generally effective in reducing body weight, blood pressure, glucose level and high cholesterol, but only a few studies examined long term adherence.

Hagins, M., Moore, W., & Rundle, A. (2007). Does practicing hatha yoga satisfy recommendations for intensity of physical activity which improves and maintains health and cardiovascular fitness? *BMC Complementary and Alternative Medicine* .

This study investigated the metabolic and heart rate responses of a typical hatha yoga session to determine whether a typical hatha yoga practice meets the current recommendations for levels of physical activity required to improve and maintain health and cardiovascular fitness. The metabolic and heart rate responses of a hatha yoga practice were compared to treadmill walking.

The hatha yoga practice consisted of 28 minutes of Sun Salutations, 20 minutes of standing poses, and 8 minutes of sitting/ lying poses. The metabolic and heart rate responses averaged across the entire session represented low levels of physical activity (equivalent to walking on a treadmill at 3.2 kph) and do not meet the recommendations for levels of physical activity recommended for improving and

maintaining health or cardiovascular fitness. However the metabolic and heart rate responses for this study were averaged across the entire yoga session which included sun salutations, standing and sitting postures. The metabolic values for the sun salutation portion of the practice were significantly higher than the values for treadmill walking at 3.2 kph and were not significantly different than the recommended minimum values for moderate levels of physical activity. Therefore a yoga practice with a portion of sun salutations exceeding 10 minutes may contribute some portion of sufficiently intense physical activity to improve cardio-respiratory fitness.

Gordon, L. A., Morrison, E. Y., McGrowder, D. A., Young, R., Fraser, Y. T., Zamora, E. M., et al. (2008). Effect of exercise therapy on lipid profile and oxidative stress indicators in patients with type 2 diabetes. *BMC Complementary and Alternative Medicine* .

Yoga has been shown to be a simple and economical therapeutic modality that may be considered as a beneficial adjuvant for type 2 diabetes. This study investigated the impact of Hatha yoga and conventional physical training (PT) exercise regimens on biochemical, oxidative stress indicators, and oxidant status in patients with type 2 diabetes. The randomized study consisted of 77 type 2 diabetes patients in the Hatha yoga exercise group that were matched with a similar number of type 2 diabetes patients in the conventional PT exercise and control groups. The results revealed the efficacy of Hatha yoga exercise on fasting blood glucose, lipid profile, oxidative stress markers and antioxidant status in patients with type 2 diabetes and suggest that Hatha yoga exercise and conventional PT exercise may have therapeutic preventative and protective effects on diabetes by decreasing oxidative stress and improving antioxidant status.

John, P. J., Sharma, N., Charma, S. M., & Kankane, A. K. (2007). The effectiveness of yoga on the treatment of migraine without aura: a randomized controlled trial. *Headache* , 654-661.

Numerous studies have explored the effectiveness of complementary and alternative medicine in the treatment of migraine but there is no documented investigation of the effectiveness of yoga therapy for migraine management. The purpose of this study was to investigate the effectiveness of holistic approach of yoga therapy for migraine treatment compared to self-care. Seventy-two patients with migraine without aura were randomly assigned to yoga therapy or selfcare group for 3 months. Primary outcomes were headache frequency (headache diary), severity of migraine (0–10 numerical scale) and pain component (McGill pain questionnaire). Secondary outcomes were anxiety and depression (Hospital anxiety depression scale), medication score. The results revealed that the subjects' complaints related to headache intensity, frequency, pain rating index, affective pain rating index, total pain rating index, anxiety and depression scores, and symptomatic medication use were significantly lower in the yoga group compared to the self-care group. This study demonstrated a significant reduction in migraine headache frequency and associated clinical features, in patients treated with yoga over a period of 3 months. Further study of this therapeutic intervention appears to be warranted.

Using Yoga to Manage ADD

ADDers lack that mind-body connection. Yoga combines physical activity with self-awareness, which promotes this connection. ADDers report impulsivity and don't have a control over their bodies. Yoga can help ADDers feel calm, centered, in control, and in touch with their bodies. People should be encouraged to concentrate on themselves and not others in the class, doing only what feels comfortable.

<http://ambafrance-do.org/yoga/16797.php>

Rainbow Play Program

Rainbow Play is designed to increase a child's self-awareness. It combines stress management, education, drama and character building to create self-confidence. Children in schools receive so much negativity and are subjected to increasing amounts of tragic violence. Much of this can be blamed on decreased values. Rainbow Play teaches children personal awareness in their own lives and is incorporated into their daily curriculum. Pupils are taught mindful movement exercises and stress management techniques. They are encouraged to write and talk about feelings and teachers mirror them back. Students use these techniques to get in touch with emotions and then act out dramas that reflect their feelings, exploring their emotions. This program helps children learn to respond under pressure using their own positive character traits and strengths instead of violence.

www.childrensyogaplay.com/aboutus.html

Dispeller of Darkness

Dr. Venkaluswamy created the world's largest center for curing blindness: Aravind Eye Hospitals. He believes in "compassionate capitalism" as 2/3 of his patients are treated free. The key factor in all this is love. Dr. V's core philosophy follows the teaching of Sri Aurobindo (after which the hospital was named) and the Mother of the Pondicherry, both masters of old Indian spiritual thought and practice. He believes a spiritual connection is crucial to healing. He states, "From the point of view of Yoga, everything depends much more on the attitude one takes than on the thing itself." The hospital revenue comes from the 1/3 of the patients who pay plus support from North American and British social service organizations, Lion Clubs International, Sight Savers, World Health Organization, Helen Keller Foundation, the Ford Foundation and Seva

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This article had 2 personal testimonies of a 30-year-old blind woman who couldn't see her children and a 65 year-old blind man who could no longer work or see his grandchildren. Both received cataract surgery and the lens implants and are back working and enjoying the blessing of their sight.

Yoga Journal; Oct97 Issue 136, p100, 5p

Mindfulness Based Stress Reduction and Family Systems Medicine: A Natural Fit

MBSR is an 8-week, nine-session group treatment program for patients with medical conditions ranging from anxiety, depression, chronic pain and stress related chronic illnesses. Founded by John Cabat-Zinn, he believed that each individual has a tremendous potential for healing. Skills taught in these group meetings include mindfulness techniques such as meditation, yoga and a body awareness technique called the body scan.

MBSR provided key background material for Linehan, Cochran and Kehrner's dialectical behavior therapy, a program for treating patients with borderline personality disorders. MBSR is the backbone for Teasdale and Segal's cognitive therapy for preventing relapse in depression. There are approximately 240 MBSR programs around the world.

MBSR is now being used in resident's training, teaching them to center and use meditation and yoga in everyday activities such as eating, walking and seeing patients. This helps the resident to simply be present for the task at hand. Residents have reported learning how to stay calm in overwhelming situations such as learning surgery and dealing with challenging patients.

Families, Systems, and Health 2004, Volume 22, No. 2, 204 - 208

Competitive Yoga in West Palm Beach

The first yoga asana competition drew 26 participants. People ask, why compete a practice that is supposed to relax you and help you look inward. Bikram Choudary and his wife who brought his 26-pose sequence to the United States in the 1970's sponsored the competition. The contestants compete before 3 judges. Bikram states the competition encourages more people to participate in yoga and states it's a purer sport because you are your own opponent. Your opponent brings out the best in you rather than trying to defeat you as in other sports. The eventual goal: make yoga an Olympic sport.

Sun-Sentinel (Fort Lauderdale, FL); 1/06/2008 – Newspaper

Reverse Heart Disease Naturally

Dr. Dean Ornish, through research, has proven that blockage in arteries of the heart can regress when following very strict lifestyle modifications. Instead of surgery, 48 patients agreed to participate in Ornish's research project. Nineteen were in the control group and followed AHA guidelines, while 22 agreed to follow Ornish's program. Those in the treatment group agreed to a 1-week retreat to jump-start their program. During the retreat

they began a vegetarian diet, exercised moderately, began yoga and other stress reduction techniques along with bi-weekly group therapy.

Dr. Ornish's research suggests significant reduction of blockages in just one year following his plan. Dr. Ornish tried these same modifications as a stressed out medical student, taking up yoga, meditation and a vegetarian diet. He felt better; less stressed and had more energy.

His participants in both control and treatment groups are questioned every 6 months. Of the treatment group, 82% had some reversal of blockage. Through group therapy the treatment group "opened-up", became less isolated and became more intimate, less hostile. They were taught yoga postures and chanting producing a calming effect. Yoga proved just as beneficial as diet and moderate exercise in reversing disease. They complete a 70 minute yoga routine daily. The treatment group did daily meditation including visualization. They also began eating a vegetarian diet of 10% fat or less. The treatment showed significant regression of disease while the control group showed only slowing of progression of disease at best.

Prevention: May 90, Vol. 42 Issue5, p50-65, 14p, 6 color

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Yoga Journal; Oct97 Issue 136, p100, 5p

Preparing for Parenthood With Yoga: Yoga for Moms-to-Be

By: Andrea Braslavsky

<http://www.webmd.com>

Short Summary:

Prenatal Yoga provides many health benefits for mother and baby. Yoga can help the body prepare itself for giving birth, so the mother has a smoother time in labor. Yoga can also help the mind prepare itself for giving birth, the breath and the mindbody connection is stressed in Prenatal yoga which helps women prepare for the stress that can come with giving birth.

Long Summary:

Prenatal yoga is much more gentle than a typical yoga class. The prenatal yoga classes help mother's physically and mental prepare for the birth of the children. The physical benefits include: keeping the spine aligned, keeping the pelvis aligned, it takes the breath deep to where your baby is growing, it helps alleviate the stress on the spine and also helps the abdomen grow to have room for the baby. It also keeps all the organs going and the glandular system going strong.

"With pregnancy and all the changes that are going on during those nine months, the most important thing that yoga can do is bring you into an internal focus while moving your body and making you aware of your breath," Terri O'Connor. O'Connor is the co-owner of Plum Tree Yoga Center in Roswell, Ga. "When yoga does that, it helps a pregnant woman reduce any anxiety around the whole process, strengthen her body, and create an internal calm state, which is so needed and important. Yoga poses, being a gentle way of movement, will get your body into alignment and create a still place within, and with that you are creating a calm state of mind, hopefully more space in your lungs and abdomen to breathe, and some strength to help you during labor."

"When you are paying attention to the breath, you can calm down and slow down your regular routine of the day. You can deepen the breath, which will relax the body and in turn create that calm place in your mind. When we are aware of the breath, we can become more aware of the body -- and this is so important throughout the pregnancy process because the breath becomes more difficult as you gain weight and as the abdomen is compressed more." Says O'Connor.

"You want to breathe [properly] for the baby's sake because your baby is getting all of the benefits of the breath when you do breathe deeper." Says O'Connor.

"I encourage any women -- pregnant or not -- to explore yoga. We are faced with different challenges than men are, so I promote yoga at all phases in a woman's life. I encourage giving the gift to yourself to go into a quiet place to honor your body, your mind, your spirit, and emotions. Just honor yourself as a woman. When we can take care of ourselves, then we can accept the challenges that motherhood and daily life bring to us." Says O'Connor.

Anxiety

Title	Three- year follow- up and clinical implications of a mindfulness meditation-based stress reduction intervention in the treatment of anxiety disorders.
Author	Miller JJ, Fletcher K, Kabat-Zinn J Department of Psychiatry, University of Massachusetts Medical Center, Worcester 01655, USA.
Abstract	<p>A previous study of 22 medical patients with DSM-III-R-defined anxiety disorders showed improvements in symptoms of anxiety and panic following an 8-week outpatient intervention based on mindfulness meditation. In this study, 3-year follow up data were collected on 18 of the original 22 subjects to probe long-term effects. Measures analysis showed maintenance of the gains obtained in the original study on the Hamilton and Beck Anxiety and Depression scores as well as on the number and severity of panic attacks, and on the Mobility Index-Accompanied and the Fear Survey. Comparison of these results with a larger group of subjects from the intervention suggests generalizability of the results. The majority of subjects had continued the meditation practice at 3 years.</p> <p>"We conclude that an intensive but time-limited group stress reduction intervention based on mindfulness meditation can have long-term beneficial effects in the treatment of people diagnosed with anxiety disorders."</p>
Journal	Gen Hosp Psychiatry 1995 May;17(3):192-200
Database ID	Medline PMID: 7649463, UI: 95377627

Chronic pain

Title	The clinical use of mindfulness meditation for the self-regulation of chronic pain.
Author	Kabat-Zinn J, Lipworth L, Burney R
Abstract	<p>Ninety chronic pain patients were trained in mindfulness meditation in a 10-week Stress Reduction and Relaxation Program. Improvement appeared to be independent of gender, source of referral, and type of pain. A comparison group did not show significant improvement on these measures after traditional treatment protocols. At up to 15 months follow-up, improvements were maintained for all measures except present-moment pain.</p> <p>"Statistically significant reductions were observed in measures of present-moment pain, negative body image, inhibition of activity by pain, symptoms, mood disturbance, and psychological symptomatology, including anxiety and depression. Pain-related drug utilization decreased and activity levels and feelings of self-esteem increased."</p>
Journal	J Behav Med 1985 Jun;8(2):163-90
Database ID	Medline PMID: 3897551, UI: 85293071

Coronary risk

Title	Trial of relaxation in reducing coronary risk: four year follow up.
Author	Patel C, Marmot MG, Terry DJ, Carruthers M, Hunt B, Patel M
Abstract	<p>In this study, 192 men and women aged 35-64 were identified as having two or more risk factors for high blood pressure, high plasma cholesterol concentration, and current smoking habit of 10 or more cigarettes per day. Randomly allocated to treatment and control groups, both groups were given health education leaflets containing advice to stop smoking, reducing fatty diet and reducing blood pressure. The treatment group was taught eight weekly one-hour sessions on breathing exercises, relaxation, meditation and managing stress. After four years of follow-up, lower blood pressure was maintained in the treatment group but not having had angina and treatment for hypertension.</p> <p>"Incidence of ischaemic heart disease, fatal myocardial infarction, or electrocardiographic evidence of ischaemia was significantly greater in the control group. If the results of this study could be obtained in a larger study the financial and health care implications would be enormous."</p>
Journal	Br Med J (Clin Res Ed) 1985 Apr 13;290(6475):1103-6
Database ID	Medline PMID: 3921124, UI: 85175851

Mental health

Title	Yoga as therapy in psychosomatic medicine.
Author	Goyeche JR
Abstract	<p>The medical benefits of yoga are 'side-effects' of traditional yogic practice, which consists of technology which restores optimal homeostatis by techniques not found in other approaches. Clinical observations of psychosomatic patients indicate that their distorted somatopsychic functioning necessitates their practice of yoga-like therapy.</p> <p>"A review of the clinical evidence available indicates that yoga practice has proven most effective with a wide range of psychosomatic and psychiatric disorders."</p>
Journal	Psychother Psychosom 1979;31(1-4):373-81
Database ID	Medline PMID: 482559, UI: 80013753

Psychological changes

Title	Physiological and psychological effects of Hatha-Yoga exercise in healthy women.
Author	Schell F.J, Allolio B, Schonecke OW Department of Internal Medicine, University of Wurzburg, Germany.
Abstract	<p>We measured heart rate, blood pressure, the hormones cortisol, prolactin and growth hormone and certain psychological parameters in a yoga practicing group and a control group. The yoga group had a significant decrease in heart rate during the yoga practice.</p> <p>"In the personality inventory the yoga group showed markedly higher scores in life satisfaction and lower scores in excitability, aggressiveness, openness, emotionality and somatic complaints. Significant differences could also be observed concerning coping with stress and the mood at the end of the experiment. The yoga group had significant higher scores in high spirits and extravertedness."</p>
Journal	Int J Psychosom 1994;41(1-4):46-52
Database ID	Medline PMID: 7843867, UI: 95146233

Stress

Title	Mindfulness-based stress reduction in the inner city.
Author	Roth, Beth
Abstract	<p>Studies mindfulness meditation in inner-city settings.</p> <p>"Comparing the outpatient medical insurance charges six months prior to and following the mindfulness-based intervention at the University of Massachusetts Stress Reduction Clinic, patients who completed the program demonstrated a statistically significant threefold reduction in average charges per patient, compared to patients who did not complete the program." (Kabat-Zinn J. 1987. "Six-month Hospital Visit Cost Reductions in Medical Patients Following Self-regulatory Training." Washington, D.C.: Society of Behavioral Medicine).</p> <p>At the Harvard Community Health Care Plan, there was a reduction in the number of office visits among patients who completed a behavioral medicine intervention that included training in mindfulness meditation. (Hellman C, Budd M, et al. 1990. "A Study of the Effectiveness of Two Group Behavioral Medicine Interventions for Patients With Psychosomatic Complaints." Journal of Behavioral Medicine. Winter 1990: 165-73.).</p> <p>At a hospital-based program in Utah, six months after completion of the program, patients demonstrated a 60 percent decrease in outpatient clinic visits, a 50 percent decrease in length of hospital stays, and a 90 percent reduction in work absenteeism. (Tate D. 1994. "Mindfulness Meditation Group Training: Effects on Medical and Psychological Symptoms and Positive Psychological Characteristics." Brigham Young University.).</p>
Journal	Advances: The Journal of Mind - Body Health, Fall97, Vol. 13 Issue 4, p50, 9p
Database ID	EBSCO AN: 9711071687, ISSN: 0741-9783