

How Yoga Supports Health?

Yoga is the mind–body medicine comprised of a wide range of techniques including (mainly) physical movement, breathwork and meditation. Because of its health-related benefits, yoga has been an integral part of the oldest and indigenous medical system practiced in India (ie. Ayurveda). In its various forms and for various reasons (physical and mental health-related benefits), yoga is now practiced worldwide by millions of people irrespective of their age, gender, race, religion, and nationality. Since 2011, about 200 titles are added each year on the use of yoga in different medical conditions. The salient features of yoga as a therapeutic tool are that it is simple and easy to administer; is cost-effective; and could be administered to one person or to a group in the clinical settings or at home. In contrast to pharmacological interventions, it is non-toxic and non-invasive. It may be used by patients, medical professionals, and caregivers for their own benefit and for the benefit of others. An important point to note is that yoga also enriches the emotional needs of patients that are not met by conventional therapy.

During the last five decades, there has been a worldwide interest in yoga practices in medical circles around the world. Following its global reach many doctors and scientists became interested and started studying the effects of yoga practice on various medical conditions.

The below findings are based on the research made by doctors and scientists worldwide. They provide proven, evidence based benefits of yoga for physical and mental health and overall wellbeing. This is by no means an exhaustive list but it gives an indication of the potential use of yoga to prevent and cure various health conditions:

***yoga for mental health:** yoga is extensively used as a main treatment or adjunctive treatment for a variety of mental health disorders. It can reduce symptoms of stress or generalized anxiety, schizophrenia, depression, PTSD (including survivors of natural disasters, women with a history of domestic-abuse or sexual trauma, combat-related trauma), suicidal behaviour and addiction (4;5;8;10;22)

***yoga for brain health:** yoga practice can positively impact brain health mitigating the risk of age-related and neurodegenerative diseases. (2;16)

***yoga for chronic pain:** yoga practice has a prominent effect on psychological aspects on living with chronic pain, reducing associated depression and improving quality of life. (6)

***yoga for stress:** yoga is positively related both to stress reduction and coping with stress. (9)

***yoga for low back pain:** yoga practice is effective in treating and preventing chronic low back pain by improving function, decreasing pain and improving quality of life of people affected by it. (3;22)

***yoga for preventing inflammation and fibrosis:** yoga practice reduces local connective tissue inflammation and fibrosis. (12)

***yoga for bone health:** yoga practice improves bone mineral density in spine, hips, and legs. (15)

***yoga for improving overall quality of life:** yoga improves energy levels, increases feeling of happiness, has positive effect on social relationships, sleep, and contributes to healthy weight control (17;18;20)

***yoga for self-regulation, mood control and resilience:** yoga practice facilitates self-regulation and resilience in the face of stress-related physical or emotional challenges. (19)

***yoga for immunity:** certain meditation, yoga postures, and breathing practices may be effective adjunctive means of treating and/or preventing SARS-CoV-2 infection by reducing stress, enhancing function of the immune system and counteracting some forms of infectious challenges like pandemic-associated negative inflammatory and psychosocial stress factors. (21)

***yoga for the cardiovascular conditions:** yoga proves to help treating heart conditions, reducing cardiovascular risk factors and high blood pressure (hypertension). (7;14;22)

***yoga for asthma:** for asthma, the breathing component of yoga has been linked to improvements in lung function and asthma symptoms. (22)

***yoga for HIV:** yoga is used effectively as a treatment for people with HIV. (22)

***yoga for IBS:** yoga proves to help treating irritable bowel syndrome. (22)

***yoga for cancer care:** yoga interventions are beneficial in improving the adverse symptoms in cancer patients – caused either by the disease or its treatment (such as fatigue). Yoga improves the physical and psychological symptoms, quality of life, and markers of immunity of the cancer patients. (1;11;13;22)

***yoga for the mind:** in cases where yoga does not offer significant relief from physical disease, it can still offer some measure of relief from mental suffering. In this sense, yoga can provide a different way of looking at pain, which in itself can potentially alleviate suffering. (22)

Resources:

1.Yoga into Cancer Care: A Review of the Evidence-based Research, Ram P Agarwal and Adi Maroko-Afek, International Journal of Yoga 2018 Jan-Apr; 11(1): 3–29, 2018, Date of Access: 6/11/20

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5769195/?fbclid=IwAR0z7YpB3upJ1q_3Kq_kkIEeyKtyfK0YXNrxyfWrf-cr9JrjNEYrQPMWcK8o

2. Yoga Effects on Brain Health: A Systematic Review of the Current Literature, Neha P. Gothe,^{a,*} Imadh Khan,^a Jessica Hayes,^b Emily Erlenbach,^a and Jessica S. Damoiseaux, *Brain Plasticity* 2019; 5(1): 105–122, 2019, Date of Access: 6/11/20

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6971819/>

3. A Systematic Review and Meta-analysis of Yoga for Low Back Pain, Cramer, Holger MSc; Lauche, Romy PhD; Haller, Heidemarie MSc; Dobos, Gustav MD, *The Clinical Journal of Pain*: May 2013 - Volume 29 - Issue 5 - p 450-460, 2013, Date of Access: 6/11/20

https://journals.lww.com/clinicalpain/Abstract/2013/05000/A_Systematic_Review_and_Meta_analysis_of_Yoga_for.10.aspx

4. Relaxation training for anxiety: a ten-years systematic review with meta-analysis, Gian Mauro Manzoni, Francesco Pagnini, Gianluca Castelnuovo & Enrico Molinari, *BMC Psychiatry* 8, Article Number 41 (2008), 2008, Date of Access: 6/11/20

<https://link.springer.com/article/10.1186/1471-244X-8-41>

5. Meditative therapies for reducing anxiety: a systematic review and meta-analysis of randomized controlled trials, Kevin W. Chen MPH, Ph.D. Christine C. Berger Ph.D. Eric Manheimer M.S. Darlene Forde M.A. Jessica Magidson M.S. Laya Dachman B.A. C. W. Lejuez Ph.D, Center for Integrative Medicine, University of Maryland School of Medicine, Baltimore, Maryland 21201 USA, 2012, Date of Access: 6/11/20

<https://pubmed.ncbi.nlm.nih.gov/22700446/>

6. Does mindfulness meditation improve chronic pain? A systematic review, Elizabeth F Ball 1, Emira Nur Shafina Muhammad Sharizan, Genny Franklin, Ewelina Rogozińska, *Current opinion in obstetrics & gynecology* 2017 Dec;29(6):359-366, 2017, Date of access: 6/11/20

<https://pubmed.ncbi.nlm.nih.gov/28961631/>

7. A systematic review of neurobiological and clinical features of mindfulness meditations, A. Chiesa* and A. Serretti, Institute of Psychiatry, University of Bologna, Italy, 2010, Date of access: 6/11/20

<https://pubmed.ncbi.nlm.nih.gov/19941676/>

8. Neural correlates of mindfulness meditation-related anxiety relief, Fadel Zeidan, Katherine T. Martucci, Robert A. Kraft, John G. McHaffie, Robert C. Coghill, *Social Cognitive and Affective Neuroscience*, Volume 9, Issue 6, June 2014, Pages 751–759, 2013, Date of Access: 6/10/20

<https://academic.oup.com/scan/article/9/6/751/1664700>

9. Meditation and yoga practice are associated with smaller right amygdala volume: the Rotterdam study, Rinske A. Gotink · Meike W. Vernooij · M. Arfan Ikram · Wiro J. Niessen · Gabriel P. Krestin · Albert Hofman · Henning Tiemeier · M. G. Myriam Hunink, *Brain Imaging Behaviour* 2018 Dec;12(6):1631-1639, 2018, Date of Access 6/11/20

<https://pubmed.ncbi.nlm.nih.gov/29417491/>

<https://www.psypost.org/2019/08/meditation-and-yoga-practice-linked-to-reduced-volume-in-brain-region-tied-to-negative-emotions-54273>

10. Depression and Anxiety Disorders: Benefits of Exercise, Yoga, and Meditation, SY ATEZAZ SAEED, KARLENE CUNNINGHAM and RICHARD M. BLOCH, *American Family Physician*. 2019 May 15;99(10):620-627, 2019, Date of Access: 6/11/20

https://www.aafp.org/afp/2019/0515/p620.html?cmpid=em_AFP_20190318

11. Randomized, Controlled Trial of Yoga in Women With Breast Cancer Undergoing Radiotherapy, Kavita D. Chandwani, George Perkins, Hongasandra Ramarao Nagendra, Nelamangala V. Raghuram, Amy Spelman, Raghuram Nagarathna, Kayla Johnson, Adoneca Fortier, Banu Arun, Qi Wei, Clemens Kirschbaum, Robin Haddad, G. Stephen Morris, Janet Scheetz, Alejandro Chaoul, and Lorenzo Cohen, *Journal of Clinical Oncology* 2014 Apr 1; 32(10): 1058–1065, 2014, Date of Access: 6/11/20

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3965260/#B4>

12. Stretching Reduces Tumor Growth in a Mouse Breast Cancer Model, L. Berrueta, J. Bergholz, D. Munoz, I. Muskaj, G. J. Badger, A. Shukla, H. J. Kim, J. J. Zhao & H. M. Langevin, 2018, Date of Access: 6/11/20

<https://www.nature.com/articles/s41598-018-26198-7>

<https://www.genengnews.com/topics/translational-medicine/yoga-like-exercise-associated-with-smaller-tumors-in-breast-cancer/>

13. Review of systematic reviews of non-pharmacological interventions to improve quality of life in cancer survivors, Morvwen Duncan, Elisavet Moschopoulou, Eldrid Herrington, Jennifer Deane, Rebecca Roylance , Louise Jones, Liam Bourke, Adrienne Morgan, Trudie Chalder, Mohamed A Thaha , Stephanie C Taylor, Ania Korszun, Peter D White, Kamaldeep Bhui, *BMJ Open* 017 Nov 28;7(11):e015860, 2017, Date of Access: 6/11/20

<https://pubmed.ncbi.nlm.nih.gov/29187408/>

14. Effectiveness of Yoga for Hypertension: Systematic Review and Meta-Analysis, Marshall Hagins, Rebecca States, Terry Selfe, and Kim Innes, *Complementary/Alternative Medicine in Cardiovascular Diseases* 2013, 2013, Date of Access: 6/11/20

<https://www.hindawi.com/journals/ecam/2013/649836/>

15. Twelve-Minute Daily Yoga Regimen Reverses Osteoporotic Bone Loss, Yi-Hsueh Lu, PhD, Bernard Rosner, PhD, Gregory Chang, MD, PhD, and Loren M. Fishman, MD, B Phil, Top Geriatric Rehabilitation 2016 Apr; 32(2): 81–87, 2016, Date of Access: 6/11/20

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4851231/?fbclid=IwAR2qSgOW3XEG8PUWYubdmtnnVWUCjo7wCLh08cpnvKJoHrNTFS77X3vd2B4>

16. Neuroprotective effects of yoga practice: age-, experience-, and frequency-dependent plasticity, Chantal Villemure, Marta Čeko, Valerie A. Cotton, and M. Catherine Bushnell, Frontiers in Human Science 12 May 2015, 2015

<https://www.frontiersin.org/articles/10.3389/fnhum.2015.00281/full>

17. National Survey of Yoga Practitioners: Mental and Physical Health Benefits, Alyson Ross, Erika Friedmann, Margaret Bevans, and Sue Thomas, Complementary Therapy Medicines 2013 Aug; 21(4): 313–323, 2013, Date of Access: 6/11/20

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3721070/>

18. Improvement in physiological and psychological parameters after 6 months of yoga practice, K.K.F.Rocha, A.M.Ribeiro, K.C.F.Rocha, M.B.C.Sousa, F.S.Albuquerque, S.Ribeiro, R.H.Silva, Consciousness and Cognition Volume 21, Issue 2, June 2012, Pages 843-850, 2012, Date of Access: 6/11/20

<https://doi.org/10.1016/j.concog.2012.01.014>

19. Potential self-regulatory mechanisms of yoga for psychological health, Tim Gard, Jessica J. Noggle, Crystal L. Park, David R. Vago and Angela Wilson, 2014, Date of Access: 6/11/20

<https://www.frontiersin.org/articles/10.3389/fnhum.2014.00770/full>

20. The Health Benefits of Yoga and Exercise: A Review of Comparison Studies, Alyson Ross and Sue Thomas, The Journal of Alternative and Complementary Medicine VOL. 16, NO. 1, 2010, Date of Access: 6/10/20

<https://www.liebertpub.com/doi/full/10.1089/acm.2009.0044>

21. Meditation and Yoga Practices as Potential Adjunctive Treatment of SARS-CoV-2 Infection and COVID-19: A Brief Overview of Key Subjects, William Bushell, PhD, Ryan Castle, BS, Michelle A. Williams, Kimberly C. Brouwer, PhD, Rudolph E. Tanzi, PhD, Deepak Chopra, and Paul J. Mills, 2020

<https://www.choprafoundation.org/wp-content/uploads/2020/06/Meditation-and-Yoga-Practices-COVID-19.pdf>

22. An Overview of Yoga Research for Health and Well-Being Erik J Groessl*, Deepak Chopra and Paul J Mills Department of Family Medicine and Public Health; University of California San Diego, USA, Groessl et al., J Yoga Phys Ther 2015, 5:4

<https://www.choprafoundation.org/wp-content/uploads/2015/08/Overview-of-Yoga-Research.pdf>