

Yoga and Longevity

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The contents of this bibliography do not provide medical advice and should not be so interpreted. Before beginning any exercise program, see your physician for clearance.

NOTE: See also the "Seniors" bibliography.

Alexander, C. N., J. L. Davies, R. I. Newman, and H. M. Chandler. The effects of Transcendental Meditation on cognitive and behavioural flexibility, health, and longevity in the elderly: An experimental comparison of the Transcendental Meditation program, mindfulness training, and relaxation. In R. A. Chalmers, G. Clements, H. Schenkluhn, and M. Weinless, eds., *Scientific Research on the Transcendental Meditation Program: Collected Papers, Vol. 4*. Vlodrop, The Netherlands: MIU Press, 1984.

Findings: Benefits for the elderly: Increased longevity. Increased cognitive and perceptual flexibility. Increased behavioural flexibility. Increased learning ability. Improved mental health and sense of well-being. More ideal levels of blood pressure.

_____, **E. J. Langer, R. I. Newman, H. M. Chandler, and J. L. Davies.** Transcendental Meditation, mindfulness, and longevity: An experimental study with the elderly. *Journal of Personality and Social Psychology*, 1989, 57(6):950-964. Recent Research 453. *Collected Papers* v5.380.

Findings: Benefits for the elderly demonstrating reversal of aging: increased longevity (higher survival rate). Reduction of systolic blood pressure to more ideal levels. Improved mental health (improvements on nurses' mental health ratings). Increased cognitive flexibility (less premature cognitive commitment, increased learning ability on associate learning and greater perceptual flexibility). Increased word fluency. Improvements in self-reported measures of behavioral flexibility and ageing (greater ability to cope with inconvenience, reduced feelings of being old, less impatience with others). Greater sense of well-being (feeling better during the TM program, high interest in the TM Programme and high ratings of the value of the TM program. Feeling better and more relaxed after the TM program).

Arnold, Charles Henry. *110 Years of Youth through Yoga*. Self-published booklet, 1951.

At the time of writing, the author was Britain's oldest man, born July 11, 1829. He died in 1949, having lived past his 119th birthday.

Ballentine, Rudolph, M.D. Can aging be reversed? Probing the mystery of kayakalpa. *Yoga International*, Feb/Mar 2001, pp. 74-77.

Bharati, Swami Veda. Spirituality for Longevity workshop. Swami Rama's Ashram, Rishikesh, India. URL: www.swamiveda.org.

Course description: Every being seeks to live a long and healthy life filled with joy and happiness. The ancient texts on the science of longevity, Ayurveda, teach that the key to a healthy life span is the union of body, senses, mind and spirit. If we balance these components of our personality, we attain a state known in the Ayurvedic texts as *samya*, or continued health and happiness.

By cultivating a yogic life-style and the principles of self-realisation, one calms the mind and prevents dissatisfaction and unhappiness. Thereby physical illnesses are substantially reduced in occurrence, intensity and duration.

What are these secrets of longevity? In this unique seminar:

Swami Veda will share the spiritual disciplines necessary for attaining longevity, as taught to him by his master Swami Rama of the Himalayas.

Highly specialised faculty of the Himalayan Institute of Medical Sciences (www.hihtindia.org) will share their expertise of Ayurveda.

Swami Veda's international senior teachers will lead practicums and formal discussions in the following areas:

- a) beginning-advanced relaxation and breathing practices
- b) hatha-yoga in the context of "asana as meditation"
- c) systematic access into the initial levels of meditation (with opportunities for more advanced students)
- d) special shavasana and yoga-nidra practices
- e) therapeutic applications of yoga
- f) yoga philosophy and psychology

Bushell, William C. Possible "transcendence" of pain, sickness, and aging in advanced ascetico-meditational practitioners: Psychophysiological, anthropological, and comparative religious evidence. Center for the Study of World Religions Director's Seminar, November 17, 1993.

_____. Aging retardation and reversal, lifespan extension, and the superhealthy condition in meditation adepts. Institute for Noetic Sciences, in-progress research, 2001.

"This study . . . compares a group of advanced practitioners of meditation and related disciplines to normally healthy individuals, to assess whether the two groups differ in age-related hormonal measures."

_____. Dr. William Bushell's research trip report on yogic sciences at the Kumbha Mela Festival, Allahbad, India [2001]. Article available online: http://www.infinityfoundation.com/indic_mandala/indic_mandala_frameset.htm.

Via interviews with several yogis at the Kumbha Mela, it was "found, as expected, that yoga practitioners, like so many others, were followers of what is formally called in western nutritional science a *dietary* or *caloric restriction* (DR or CR) regimen. This ancient practice of Indian yogic science has been recently discovered in Western science only in the past several decades, and especially in the last several years has become a subject of enormous importance in Western nutritional science, gerontology, and

medicine and physiology in general. The reason for this intensive focus is the fact that CR can significantly retard aging and extend the maximum life-span, and delay or prevent the onset of many diseases associated with aging, including cancer, heart disease, stroke, Alzheimer's Disease, Parkinson's Disease, other major forms of neurodegenerative disease, diabetes, arthritis, and other debilitating conditions.

“The essential CR regimen involves a reduction of caloric intake, by between one- and two- thirds, while maintaining a comprehensive, balanced nutritional composition: ‘undernutrition without malnutrition.’ Achievement of this goal is generally facilitated by utilization of nutritionally rich, balanced foods such as legumes, milk, and other kinds of nutrient-dense foods. Such a regimen results in enhanced physiological functioning on a fundamental level, involving enhancement of the immune system, antioxidant defense systems, and, as most recently determined, enhancement of growth factor and stem cell activity.

“While in Western medical science the discovery of the benefits of the CR regimen are currently flourishing as never before - and bringing with them the very tangible, realistic notion of dramatic life-span and health-span extension into Western scientific consciousness - this knowledge has been a central part of Indian yogic science for centuries, and probably millenia. The association of this type of dietary regimen with enhanced longevity has continued into modern times, and the yogis I interviewed at the Kumbha Mela followed a classic Indian form of CR based on 1-2 small meals a day consisting of legumes, milk, and augmented with fresh vegetables and fruit . . .”

Chandler, H. M. The effects of Transcendental Meditation on cognitive and behavioural flexibility, health, and longevity in the elderly: An experimental comparison of the Transcendental Meditation, mindfulness training, and relaxation. In R. A. Chalmers, G. Clements, H. Schenkluhn, and M. Weinless, eds. *Scientific Research on the Transcendental Meditation Program: Collected Papers, Vol. 4.* Vlodrop, The Netherlands: MIU Press, 1983.

Chang, Stephen T., with Richard Miller. Rejuvenation. In Dr. Stephen T. Chang with Richard Miller, *The Book of Internal Exercises.* San Francisco: Strawberry Hill Press, 1978, p. 132.

Chao, Pi Ch'en, and K'uan Yü Lu. *Taoist Yoga: Alchemy and Immortality. A Translation, with Introduction and Notes, of the Secrets of Cultivating Essential Nature and Eternal life (Hsin ming fa chueh ming chih).* London: Rider, 1970.

Dalal, N. *Yoga for Rejuvenation.* Hyderabad, India: Orient Longman, 1951.

Eisenhauer, Kris. Yoga turns back the hands of time. Portland: KOIN News, 15 Aug 2000.

Research done by Dr. Dennia Bourdette at Oregon Health Sciences University indicates that Yoga might slow aging. The study measures mental sharpness, memory, physical

strength, and balance. The results will be compared to a group doing a more conventional walking workout. For more information, see the “Ongoing Research” section at the end of this bibliography.

Fitness & nutrition: Yoga great way to slow aging. *The Modesto Bee*, 18 May 2004.

Gavalas, Elaine. *The Yoga Mini-Book for Longevity*. New York: Fireside, 2003.

Glaser, J. L., J. L. Brind, M. J. Eisner, M. C. Dillbeck, J. H. Vogelmann, and R. K. Wallace. Elevated serum dehydroepiandrosterone sulphate levels in older practitioners of the Transcendental Meditation and TM-Sidhi programs. Paper presented at the Annual Meeting of the Society for Neuroscience, Washington, D.C., Nov 1986. An abstract of these results appeared in *AGE*, 1987, 10(4):160. *Collected Papers* v5.376.

Findings: Hormone levels indicating younger biological age.

Kant, S. Evaluation of yogic breathing exercises on pulmonary functions, free radicals, and antioxidant status among healthy individuals. Paper presented at Annual Meeting of the American College of Chest Physicians, 25 Oct 2000, San Francisco, California.

Khalsa, Sat Jiwan Singh. Marjan mudra: Meditation to rejuvenate. Article available online: <http://www.100megsfree.com/yoga/mudras/RejuvenateHeal.html>.

Kohn, Livia, ed. *Taoist Meditation and Longevity Techniques*. Ann Arbor, Mich.: Center for Chinese Studies, 1989.

Lalvani, Vimla. *Stop the Age Clock: Look and Feel Younger in 10 Days with Yoga*. London: Hamlyn, 1998.

Mehta, Mira. Practice routines for longevity. In Mira Mehta, *Health through Yoga: Simple Practice Routines and a Guide to the Ancient Teachings*. London: Thorsons, 2002, pp. 47-179. (Combines Yoga and Ayurveda.)

Nan, Huai-chin. Trans. by Wen Kuan Chu, ed. by Karen Allen. *Tao & Longevity: Mind-Body Transformation: An Original Discussion about Meditation and the Cultivation of Tao*. York Beach, Me.: Samuel Weiser, 1984.

Niranjanananda Saraswati, Swami. Yoga and longevity. *Yoga* (Australia edition), May 1999.

Okamoto, Masato. *Nanajissai no Seishun, Sorewa Yoga Kara* [Youth at 70 Years of Age Comes from Yoga]. Tokyo: Kasumigaseki Shobo, 1962. [In Japanese.]

Rafkin, Louise. Stay young with yoga: In the war on aging, yoga may be your best—and safest—defense. WebMD, 31 Oct 2001. Article available online: <http://my.webmd.com/content/article/1676.51324>.

Rajalakshmi, S., and G. Veluchamy. Kaya Kalpa methods adopted by Siddhars: A scientific approach. *Bulletin of the Indian Institute of History of Medicine (Hyderabad)*, Jul-Dec 2000. 30(2):103-110. PMID: 12577909.

Abstract: Thirumular says in his *Thirumanthiram* [that] the body is a sacred instrument to contain the soul and therefore must be nurtured well to safeguard the life. Thirumular is reported to have lived a long span of three thousand years according to tradition. The art of longevity and the attempts of immortalizing the corporeal human body were the ultimate aims of Siddhars as understood from their numerous treatises on the art of rejuvenation: *Thirumular Karpam - 300*, *Bohar Karpam - 300*, *Thiruvalluvur Karpam - 300*, *Yugimuni Karpam - 300*, etc., which form some of the [works of] excellence . . . in this regard. One of the means to rejuvenate the body was achieved through the art of breathing (Pranayama), which has a direct bearing on the basal metabolic rate and the span of longevity. In this paper an attempt has been made to throw some light on the scientific basis of the various Kaya Kalpa methods adopted by Siddhars.

Raman, Dr. Krishna. Yoga as a means of preserving the body. In Dr. Krishna Raman, *A Matter of Health: Integration of Yoga & Western Medicine for Prevention & Cure*. Chennai (Madras), India: Eastwest Books, 1998, pp. 281-289.

Sarbatoare, Octavian. Yoga, longevity and quality of life. Article available online: http://www.yoga.com/ydc/enlighten/enlighten_document.asp?ID=316§ion=9&cat=88.

Smith, D. E., J. L. Glaser, R. H. Schneider, and M. C. Dillbeck. Erythrocyte sedimentation rate (ESR) and the Transcendental Meditation (TM) program. *Psychosomatic Medicine* 1989, 51:259. Also in *AGE*, 1987, 10(4):160. *Collected Papers* v5.377.

Findings: Lower erythrocyte sedimentation rate levels indicating less serious illness and slower aging.

Stryker, Rod. *Yoga Journal's Yoga for Longevity*. Boulder, Colo.: Gaiam, 2002. 60 minutes.

Toomey, M., R. Chalmers, and G. Clements. The Transcendental Meditation and TM-Sidhi Programme and reversal of the ageing process: A longitudinal study. MERU Research Institute, Mentmore, Buckinghamshire, England, 1983. *Collected Papers* v3.246.

Findings: Reversal of biological aging: longitudinal reduction in biological age. Younger biological age compared with norms. Length of time practicing the Transcendental Meditation and TM-Sidhi Programme correlated with younger biological age and younger functional age. Decreased systolic blood pressure and improved auditory threshold.

Twining, Glenda. *Yoga Turns Back the Clock*. Fair Winds Press, 2004.

Wallace, R. K., M. Dillbeck, E. Jacobe, and B. Harrington. The effects of the Transcendental Meditation and TM-Sidhi Programme on the ageing process. *International Journal of Neuroscience*, 1982, 16:53-58. *Collected Papers* v3.242.

Findings: Reversal of biological aging: younger biological age compared with control subjects and population norms. Length of time practicing the Transcendental Meditation technique associated with reduction in biological age.

Weller, Stella. Yoga for beginners: Yoga for a long life. *Yoga & Health*, Oct 1997, pp. 10-12.

_____. *Yoga for Long Life*. London: Thorsons, 1997.

White, John. Yoga, longevity, and higher human development. *Yoga World*, Jan-Mar 2000, no. 12, pp. 6-7, 9.

Wong, Eva, trans. *The Tao of Health, Longevity, and Immortality: The Teachings of Immortals Chung and Lü*. Boston, Mass.: Shambhala Publications, 2000.

From the publisher: “Here is a classic Chinese text on the Taoist arts of longevity and immortality. The text dates from the Five Dynasties (907–960 CE) and is attributed to Chungli Ch’uan and Lü Tung-Pin—two of the most popular figures of Taoism and Chinese culture. This text focuses on Taoist inner alchemy, a theory and method for transforming the mind from within by using practices such as breath control, calisthenics, meditation practices, and sexual alchemy (the method of gathering energy from a sexual partner). The teachings address the following topics: the nature of immortality and how it can be attained by realizing the laws of the Tao within us, the art of health, the art of longevity, and how to deal with obstacles and recognize spiritual progress.”

Yoga for Living: Stay Young. New York: DK Publishing, 2002.

Young, Frank Rudolph. *Yoga Secrets for Extraordinary Health and Long Life*. West Nyack, N. Y.: Parker, [1976].

Of Related Interest

Reuters Health. Healthy habits may add years to life span. 13 Jul 2001. Article available online: <http://www.healthcentral.com/news/newsfulltext.cfm?ID=55923&src=n1>.

A study of Seventh Day Adventists compared to the general population found that the Adventists’ high rates of vegetarianism, regular exercise, and virtually non-existent rates of smoking contributed to up to a decade increase in lifespan.

Thursby, Gene. Islamic, Hindu and Buddhist conceptions of aging. In Thomas R. Cole, David Van Tassel, and Robert Kastenbaum, eds., *Handbook of Aging and the Humanities* New York: Springer Publishing Company, 1992, pp. 175-96. Article available online: <http://www.clas.ufl.edu/users/gthursby/pub/aging.htm>.

Ongoing Research

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NIH-funded research on the effect of Yoga on attention in aging and multiple sclerosis. The Yoga class for seniors began in April 2000, and volunteer recruitment for the MS portion is currently underway (as of 10/02).

“. . . researchers are looking for healthy, elder participants ages 65 to 85 to take part in the study. Each person will be assigned to one of three groups. The first group will take part in a Hatha yoga class that meets once a week for six months. The second group will undergo a traditional exercise program that involves a regular walking schedule supervised by a personal trainer. A third ‘wait group’ will be observed at their current levels of activity for six months. These participants will then have a chance to take part in either the exercise program or the yoga class. In addition, investigators also are enrolling patients with multiple sclerosis to track the possible benefits for those fighting this debilitating disease.

“Patient progress will be measured by observing the participant’s attentional abilities, mood, flexibility, memory, quality of life, balance and fatigue. Clinical testing will measure lipid, protein and DNA oxidative injury . . .

“The class is taught by experienced yoga teachers and supervised by nationally known yoga instructor Julie Lawrence. She has been observing the positive impact of yoga on healthy elders for more than a decade.”