JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

The Therapeutic Potential of Daily Yoga Practice as Medicine for Healthy Aging

[1] **Satish kumar**, [2] **Gomati Devi**
[1] Assistant Professor, [2] Post Graduate Teacher
[1] Govt. College Jind, [2] GGSSS, Naguran, Alewa-Jind

Abstract : The global population is experiencing an unprecedented demographic shift towards an older age structure, presenting significant health, social, and economic challenges. Chronic morbidities, functional decline, and mental health issues are increasingly prevalent among older adults. This paper systematically reviews and synthesizes the current evidence on the therapeutic potential of daily yoga practice as a complementary intervention for promoting healthy aging. It aims to consolidate findings across physical, mental, and cognitive health domains, discuss its adaptability, and highlight its broader implications. Regular yoga practice significantly enhances physical functions such as mobility, balance, and strength, contributing to fall prevention. It serves as an effective adjunctive therapy for managing chronic non-communicable diseases (NCDs) like hypertension, diabetes, musculoskeletal disorders, and respiratory conditions, partly by modulating stress and inflammation. Furthermore, yoga demonstrates profound benefits for mental and cognitive well-being, including reducing depression symptoms, improving sleep quality, enhancing cognitive function, fostering self-awareness and community, and alleviating caregiver burden. Its inherent adaptability, through modified styles like chair yoga, makes it widely accessible across diverse physical capacities. The accumulating evidence positions daily yoga practice as a robust, evidence-based, and integral component of comprehensive healthy aging strategies.

KEYWORDS:
Alzheimer's disease, quality of life, yoga, meditation, aging**,** NCD, COPD

I. INTRODUCTION

1.1 The Global Demographic Shift and the Imperative for Healthy Aging

The world is currently undergoing a profound demographic transformation, characterized by both sustained population growth and an accelerating shift towards an older age structure. This dual change is primarily driven by increasing life expectancy and decreasing fertility rates across the globe. The implications of this shift are far-reaching, impacting societies, economies, and healthcare systems worldwide.

The scale of this demographic evolution is substantial. The number of individuals aged 60 and older globally is projected to rise significantly, from 1.1 billion in 2023 to 1.4 billion by 2030. Looking further ahead, this demographic is anticipated to reach 2.1 billion by 2050, at which point it will comprise approximately 22% of the total global population. Recent updates from the UN World Population Prospects 2024 indicate that the global population is estimated to be 8.2 billion in 2024, with projections suggesting it will peak at around 10.3 billion in the mid-2080s before gradually declining to 10.2 billion by 2100. A particularly notable aspect of this trend is the projected shift by the late 2070s, when the global population aged 65 and older is expected to reach 2.2 billion, surpassing the number of children under 18. Even more immediately, by the mid-2030s, 265 million individuals will be aged 80 and older, a number that will outnumber infants globally.

This demographic transformation is not confined to specific regions but is manifesting globally. More developed regions are expected to experience an increase in the proportion of older persons from 26% in 2022 to 34% in 2050. In parallel, less developed regions will see a rise from 11.5% to 20% during the same

period, with the absolute number of older individuals in these regions more than doubling from 772 million in 2022 to 1.7 billion by 2050. India, a nation undergoing a rapid demographic transition, exemplifies this trend. Its population aged 60 and above is projected to elevate from 10.5% in 2022 to 20.8% in 2050, and further to over 36% by the close of the century. In 2024, the proportion of elderly persons in India is projected to reach 10.7% and is likely to increase to 13.1% by 2031, with the absolute elderly population estimated to cross 150 million.

This demographic shift is not merely a numerical increase but represents a fundamental societal transformation. The rapid pace of aging in developing countries implies a compressed timeframe for adaptation compared to developed nations, which aged more gradually. This necessitates urgent and proactive policy and infrastructure development, particularly in healthcare and social protection, to avoid overwhelming existing systems and ensure the well-being and support of the aging population.

1.2 Health Challenges Associated with an Aging Population

The aging process is inherently linked to a decline in health status, primarily attributed to the increased prevalence of chronic morbid conditions and the diminishing physiological capacity of the body. This decline adversely affects functional capacities crucial for performing Activities of Daily Living (ADL). The manifestation of poor health status is evident through deterioration in functional capacity, negative perceptions regarding physical or mental well-being, and often inadequate access to quality healthcare.

The prevalence of chronic non-communicable diseases (NCDs) presents a significant health concern among the elderly globally, and particularly in India. India is currently undergoing an epidemiological transition, shifting from a predominance of infectious diseases to an increasing burden of chronic conditions. Widespread NCDs such as hypertension and diabetes are notably high among the elderly, impacting individual health and contributing to complications affecting vital organs. Cardiovascular diseases, including ischemic heart disease and heart failure, are major contributors to morbidity and mortality in this demographic. Respiratory conditions like Chronic Obstructive Pulmonary Disease (COPD), often linked to tobacco use and environmental factors, also pose a substantial health burden. Furthermore, musculoskeletal disorders such as arthritis and osteoporosis are common, affecting mobility and overall quality of life. Mental health issues, including depression, Alzheimer's disease, and other dementias, are also on the rise, with the stigma surrounding these conditions often leading to underreporting and inadequate access to mental healthcare services. By 2030, older adults are projected to account for nearly 45% of India's total disease burden.

Nutritional status, as indicated by Body Mass Index (BMI), serves as a well-established marker of multi morbidity and disability among older adults. In India, the elderly population exhibits a crucial health dynamic: 27.1% are classified as underweight, 16.8% as overweight, and 5.6% as obese. The incidence of underweight individuals increases substantially with advancing age, affecting 28.7% of men and 25.7% of women aged 60 and above. Conversely, obesity displays regional variations, with a higher prevalence (11.8%) observed among urban elderly individuals compared to their rural counterparts (3.2%).

Disability emerges as a significant concern with age, placing substantial limitations on ADLs and intensifying the burden of caregiving. The Longitudinal Aging Study in India (LASI) has systematically examined impairments among older individuals, encompassing physical, mental, hearing, speech, and visual capabilities. Findings highlight a considerable gender disparity in the incidence of impairments, particularly among those aged 80 years and above, where women reported a significantly higher incidence (179 per 1,000 individuals) compared to men (119 per 1,000). For the broader age group of 60 years and above, the incidence of any impairment was found to be 105 per 1,000 populations. Functional restrictions are also prevalent, with one in five elderly individuals in India grappling with at least one ADL limitation, with getting in or out of bed and using toilets proving most challenging.

1.3 Overview of Yoga as a Mind-Body Intervention

Yoga, an ancient mind-body practice originating from India, has gained global recognition for its holistic benefits, encompassing physical, mental, and spiritual well-being. It is a multifaceted discipline that typically involves physical postures (asanas), controlled breathing techniques (pranayama), and meditation, all of which promote deep relaxation and stress reduction. The practice is designed to integrate the body and mind, fostering a sense of harmony and balance.

The increasing scientific validation of yoga bridges traditional practices with contemporary evidence-based medicine. This signals a potential paradigm shift in geriatric care, moving from purely reactive disease treatment towards proactive, holistic interventions that empower older adults to maintain health and independence. This evolution in understanding and acceptance suggests that yoga can play a significant role in addressing the complex health challenges associated with an aging global population.

2. Yoga's Evidence-Based Impact on Physical Health in Older Adults

2.1 Enhancing Mobility, Balance, and Strength for Fall Prevention

As individuals age, declines in mobility and functional capacity are common, leading to an increased risk of falls. These falls can result in greater physical incapacity and a significant loss of autonomy. Yoga offers a robust intervention to counteract these age-related challenges, demonstrating significant improvements in balance, gait, and lower-limb strength—all critical factors in preventing falls.

Research indicates that older individuals who regularly practice yoga exhibit a functional state that is 3.27 times greater than those who do not, with notable improvements observed in muscle strength, agility, and both static and dynamic balance. A 12-week web-based exercise program, incorporating components similar to yoga, demonstrated significant improvements in clinical measures such as the 30-second Chair Stand and Timed Up and Go tests, particularly for participants at moderate risk of falling. This emphasis on enhancing balance and strength directly translates into a reduced fear of falling and an improved ability to perform activities of daily living (ADLs), thereby preserving independence and enhancing the quality of life in later years.

2.2 Management of Chronic Non-Communicable Diseases (NCDs)

Chronic inflammation and persistent stress are common underlying factors in the development and progression of many non-communicable diseases (NCDs). Yoga has been found to be exceptionally beneficial in mitigating these issues. The emphasis on yoga's role in mitigating chronic inflammation and stress provides a crucial mechanistic link for its broad impact on NCDs. This moves beyond simply observing symptomatic improvement to understanding the physiological pathways through which yoga exerts its beneficial effects, particularly through gene expression modulation, including the down regulation of pro-inflammatory genes like interleukin-6 (IL-6), tumor necrosis factor-alpha (TNF-α), and nuclear factor kappa B (NF-κB), and the up regulation of anti-inflammatory and immune-regulatory genes.

2.2.1 Cardiovascular Health (Hypertension, Heart Function)

Regular yoga practice can significantly contribute to healthier hearts by reducing both stress levels and systemic inflammation throughout the body. It effectively addresses several risk factors associated with heart disease, including high blood pressure and excess weight. Studies consistently demonstrate yoga's ability to lower blood pressure, with observed reductions of approximately 10 mmHg in systolic and 8 mmHg in diastolic pressure for individuals with hypertension. A 2024 systematic review and meta-analysis specifically evaluating the effects of yoga for managing prehypertension and hypertension found positive effects on systolic blood pressure (mean difference = -7.95 mmHg) and diastolic blood pressure (mean difference = -4.93 mmHg), as well as reductions in heart rate.

Beyond blood pressure, yoga improves respiratory function and heart rate, enhances circulation, and boosts muscle tone, all vital for cardiovascular well-being. A key physiological mechanism underpinning these cardiovascular benefits is yoga's capacity to balance the autonomic nervous system (ANS). It achieves this by increasing parasympathetic activity (the "rest and digest" response) and decreasing sympathetic tone (the "fight or flight" response). This ANS modulation optimizes the body's homeostasis and enhances cardio vagal function, which is particularly beneficial for conditions such as heart failure and atrial fibrillation.

2.2.2 Metabolic Health (Diabetes, Weight Management, Body Composition)

Multiple studies indicate that yoga can positively influence metabolic health, specifically by helping to regulate blood glucose levels. Furthermore, yoga contributes to weight reduction and the maintenance of a balanced metabolism. For younger adults, regular yoga practice has been associated with less weight gain over time, a benefit particularly pronounced in overweight individuals. This effect is attributed not just to physical activity but also to yoga's promotion of body awareness, self-compassion, and its potential to reduce emotional eating. Systematic reviews confirm that yoga can meaningfully improve anthropometric and body composition variables in overweight and obese individuals, leading to reductions in body weight, Body Mass Index (BMI), body fat, and waist circumference. It can also enhance muscle insulin resistance, contributing to better glucose disposal.

Yoga's contribution to weight management extends beyond caloric expenditure by addressing psychological and behavioral aspects like emotional eating and body dissatisfaction. This suggests a more sustainable approach to metabolic health, where individuals develop a healthier relationship with their bodies and food. This holistic behavioral change is particularly relevant for older adults who may face mobility challenges that limit high-intensity exercise, offering a nuanced and accessible pathway to improved metabolic health.

2.2.3 Musculoskeletal Health (Back Pain, Arthritis, Bone Density)

Yoga has demonstrated significant efficacy in alleviating musculoskeletal discomfort. It is as effective as basic stretching for easing chronic lower back pain and improving mobility, so much so that the American College of Physicians recommends yoga as a first-line treatment for chronic low back pain. Gentle yoga

practices have been shown to ease the discomfort of tender, swollen joints for individuals with arthritis, leading to improvements in physical pain, general health, vitality, and the ability to perform activities of daily living (ADLs). For patients with osteoarthritis and rheumatoid arthritis, yoga promotes joint health without exacerbating the disease.

Moreover, yoga contributes to bone health by helping to prevent osteoporosis and has even been observed to increase bone density in seniors. Regular weight-bearing exercises, which include yoga, are crucial for preserving bone health, as bones, similar to muscles, become stronger with use. The low-impact nature of yoga makes it a safe way for older adults with arthritis, osteoporosis, or joint issues to stay strong and mobile without overtaxing the body.

2.2.4 Respiratory Health (COPD, Lung Function)

For individuals with lung conditions such as Chronic Obstructive Pulmonary Disease (COPD), yoga, particularly its mindful breathing exercises (pranayama), offers safe and beneficial alternatives for physical activity and stress relief. Yoga enhances lung function by improving oxygen transfer into the bloodstream and strengthening respiratory muscles. Specific yoga breathing techniques have been shown to improve respiratory capacity and exercise intolerance in older adults with COPD, and to enhance respiratory muscle strength in frail institutionalized older adults.

A 2024 study found that a 12-week combining Tai Chi and Yoga (TY) program significantly improved pulmonary functions, functional fitness, quality of life, and fatigue in older male COPD patients. Breathing exercises commonly found in yoga, such as diaphragmatic breathing (belly breathing) and pursed-lips breathing are particularly helpful for individuals with COPD by engaging the diaphragm and promoting slower, more effective exhalation.

Yoga's emphasis on controlled breathing (pranayama) provides a targeted, low-impact method to strengthen the respiratory system. This positions it as a crucial component of pulmonary rehabilitation, directly addressing a key physiological decline associated with aging and chronic lung conditions like COPD, where maintaining lung capacity is vital for overall health and exercise tolerance.

2.3 Addressing Frailty and Promoting Functional Independence

Frailty is a common and serious concern in older adult populations, characterized by increased vulnerability to adverse health outcomes. Yoga has shown promise in impacting markers associated with frailty. There is moderate-certainty evidence indicating that yoga can improve gait speed and lower-extremity strength and endurance in older adults. Additionally, low-certainty evidence suggests improvements in balance and multicomponent physical function measures.

3. Yoga's Profound Influence on Mental and Cognitive Well-being in Older Adults

3.1 Stress, Anxiety, and Depression Reduction

Yoga promotes profound relaxation through its deep breathing and meditation practices, which effectively reduce stress levels and help older adults feel more centered and in control of their emotional states. This practice can lead to a significant decrease in feelings of stress and anxiety.

A 2025 case-control study further explored these effects, finding that regular yoga practitioners exhibited significantly higher resilience and lower perceived stress compared to non-practitioners, but observed no significant changes in geriatric depression or COVID-anxiety in that specific context. In contrast, other research indicates that mind-body exercises, including yoga, were associated with significantly reduced depression (standardized mean difference = -0.89) and anxiety (standardized mean difference = -0.77) severity in older adults with cancer.

The varying findings regarding anxiety and stress reduction compared to robust evidence for depression underscore the importance of methodological rigor and specificity in research. This suggests that while yoga generally supports mental well-being, its precise efficacy for different mental health markers in aging populations requires more targeted and consistent investigation.

3.2 Cognitive Function and Memory Enhancement (including Alzheimer's/Dementia)

Yoga can act as a protective factor for cognitive health in older adults. It has been shown to enhance memory and attention by potentially increasing gray matter density in the brain, a critical factor for decision-making and self-control as individual's age. Furthermore, yoga improves blood flow to the brain, which is believed to aid memory retention.

For individuals diagnosed with mild to moderate Alzheimer's disease (AD), a 12-week yoga intervention has led to significant improvements in overall cognitive function, as measured by MoCA scores. These improvements were particularly notable in specific cognitive domains such as language, attention, and delayed recall. This suggests that yoga can help improve memory and potentially slow the rate of cognitive decline in individuals with Alzheimer's. Yoga-therapy is considered safe and can increase cognitive abilities

for seniors experiencing age-related cognitive decline, benefiting not only individuals with AD but also their caregivers.

3.3 Improvement in Sleep Quality

Improved sleep quality is a crucial benefit of regular yoga practice, particularly for older adults where sleep disturbances are common. Research consistently shows that a consistent bedtime yoga routine can help individuals achieve the right mindset and prepare their body to both fall asleep and stay asleep. Yoga's inherent relaxation techniques and its capacity for stress reduction directly contribute to enhanced sleep quality. One study specifically found that seniors practicing yoga reduced their time to fall asleep by an average of ten minutes and increased their total sleeping duration by an average of one hour.

A 2025 scoping review highlights that chronic yoga practice significantly improves sleep quality in individuals with sleep problem syndrome, with long-duration interventions (≥17 weeks) yielding the most robust results, showing a 7.92% increase in sleep quality. Even short-duration interventions (≤6 weeks) and low-frequency sessions (1–2 per week) demonstrated significant improvements in insomnia severity and sleep quality.

3.4 Cultivating Self-Awareness, Community Engagement, and Quality of Life

Yoga fosters a deeper sense of self-awareness and promotes better self-care practices, enabling individuals to detect physical problems earlier and take preventive action. Beyond individual benefits, participating in group yoga classes can significantly ease feelings of loneliness and provide a supportive environment for collective healing. This fosters social interaction and cultivates a vital sense of belonging, which is profoundly important for older adults who may face social isolation. Regular yoga practice consistently improves overall quality of life, enhancing perceived psychological well-being across various measures.

The social and community aspects of yoga, often underestimated, are critically important for older adults who may face social isolation. This positions yoga as a form of social prescribing, where participation in group activities addresses not only physical or mental health but also the crucial social determinants of health. This holistic approach to well-being, encompassing physical, mental, and social dimensions, is a core tenet of effective geriatric care, recognizing that health extends beyond the absence of disease to include social connection and purpose.

4. Adaptability and Implementation Considerations for Yoga in Senior Populations

4.1 Modified Yoga Styles and Accessibility (e.g., Chair Yoga, Gentle Yoga)

One of yoga's most significant strengths, particularly when considering its application as a therapeutic intervention for older adults, is its inherent adaptability. Chair yoga exemplifies this adaptability, proving particularly beneficial for individuals with limited mobility or those who find practicing on a mat difficult. By utilizing a chair for support, it provides many of the benefits of traditional yoga in a more accessible and safer format.

Similarly, gentle yoga styles focus on relaxation through soft stretches and the judicious use of props, making them excellent choices for stress relief and enhancing mental well-being. Iyengar yoga, a classical form of Hatha yoga, is notable for its emphasis on standardized, precisely aligned poses that can be specifically tailored for elderly individuals, those who are physically unfit, or those managing chronic illnesses. Its low-impact nature makes it a safe way for older adults with arthritis, osteoporosis, or joint issues to stay strong and mobile without overtaxing the body.

4.2 Importance of Personalized Practice and Professional Guidance

To maximize the benefits and ensure the safety of yoga practice, especially when integrated into a medical regimen for older adults, personalized plans and professional guidance are paramount. A qualified yoga therapist can collaborate effectively with patients and their healthcare providers to develop individualized yoga plans that seamlessly integrate with existing medical and surgical therapies. This tailored approach ensures that yoga practices are adapted to the unique characteristics and specific health needs of each person, taking into account any pre-existing conditions, mobility limitations, or cognitive considerations.

The emphasis on individualized plans and professional guidance underscores the importance of integrating yoga into a clinical framework when considering it as a form of medicine. This approach not only ensures safety and appropriate modifications for complex health conditions but also enhances adherence, which is critical for achieving long-term therapeutic benefits.

5. Conclusion

5.1 Synthesis of Key Findings and Cumulative Therapeutic Impact

Daily engagement in yoga practice offers a comprehensive array of benefits for older adults, positioning it as a powerful complementary approach to health. Physically, it significantly enhances strength, balance, flexibility, and overall mobility, directly contributing to a reduced risk of falls and promoting sustained functional independence. Beyond these foundational physical improvements, yoga serves as an effective

adjunctive therapy for managing a spectrum of chronic conditions prevalent in older age. This includes hypertension, diabetes, various cardiovascular issues, musculoskeletal pain such as back pain and arthritis, and respiratory ailments like COPD. Its efficacy in these areas is often attributed to its ability to modulate underlying factors like stress and inflammation.

5.2 Future Directions and Global Promotion for Senior Wellness

International Yoga Day serves as a powerful annual reminder and a global platform to encourage seniors worldwide to explore and integrate yoga into their daily lives. Its adaptability ensures that the practice can meet individuals wherever they are in their physical journey, reinforcing the principle that "No matter where you start, yoga meets you there". This makes yoga a truly universal practice for promoting wellness across the lifespan.

The global promotion of International Yoga Day exemplifies how traditional practices, rigorously validated by science and thoughtfully adapted, can offer profound and accessible solutions to contemporary global health challenges, particularly those associated with an aging population. This underscores the immense value of cross-cultural knowledge exchange and health diplomacy in advancing public health initiatives worldwide.

REFERENCES

1. American Osteopathic Association. (n.d.). *What are the benefits of yoga?* Retrieved June 19, 2025, from https://osteopathic.org/what-is-osteopathic-medicine/benefits-of-yoga/
2. Apria. (n.d.). *The benefits of yoga when living with COPD*. Retrieved June 19, 2025, from https://www.apria.com/home-healthcare-insights/the-benefits-of-yoga-when-living-with-copd
3. Cramer, H., Haller, H., Lauche, R., Steckhan, N., Michalsen, A., & Dobos, G. (2014). A systematic review and meta-analysis of yoga for hypertension. *American Journal of Hypertension, 27*(9), 1146–1151. https://doi.org/10.1093/ajh/hpu078
4. Eilat-Adar, S., Shenhar, M., Hellerstein, D., & Dunsky, A. (2023). The influence of yoga on the cognitive function of people aged 60 years and older: A systematic review. *Alternative Therapies in Health and Medicine, 29*(1), 269–279.
5. Gallo, B. V., de Arruda, M. V., Herrmann, F., Reyes, M., & Ferreira Galduróz, R. (2023). A systematic review with meta-analysis of yoga's contributions to neuropsychiatric aspects of aging. *Behavioural Brain Research, 454*, 114636. https://doi.org/10.1016/j.bbr.2023.114636
6. International Institute for Population Sciences (IIPS). (2020). *Longitudinal Aging Study in India (LASI) Wave 1, 2017–18, India Report.* Mumbai: IIPS. Retrieved from https://www.iipsindia.ac.in
7. Kaushik, M., Yadav, A., Upadhyay, A., Gupta, A., Tiwari, P., Tripathi, M., & Dada, R. (2025). Yoga an integrated mind body intervention for improvement in quality of life in individuals with Alzheimer's disease and their caregivers. *Frontiers in Aging, 6*, 1449485. https://doi.org/10.3389/fragi.2025.1449485
8. Lazarus, R., & Folkman, S. (2015). *Stress, appraisal, and coping*. Springer Publishing Company.
9. Loewenthal, J., Innes, K. E., Mitzner, M., Mita, C., & Orkaby, A. R. (2023). Effect of yoga on frailty in older adults: A systematic review. *Annals of Internal Medicine, 176*(4), 524–535. https://doi.org/10.7326/M22-2553
10. Maddux, R. E., Daukantaite, D., & Tellhed, U. (2018). The effects of yoga on stress and psychological health among employees: An 8- and 16-week intervention study. *Anxiety, Stress, & Coping, 31*(2), 121–134. https://doi.org/10.1080/10615806.2017.1405261
11. Mahmud, S., Mohsin, M., Dewan, M., & Muyeed, A. (2022). The global prevalence of depression, anxiety, stress, and insomnia among general population during COVID-19 pandemic: A systematic review and meta-analysis. *Trends in Psychology, 31*(1), 143–170. https://doi.org/10.1007/s43076-021-00116-9
12. Madhuri, T., Rajesh, S., & Dada, R. (2017). Impact of yoga and meditation on cellular aging in apparently healthy individuals: A prospective, open-label single-arm exploratory study. *Oxidative Medicine and Cellular Longevity, 2017*, 7928981. https://doi.org/10.1155/2017/7928981
13. Michalsen, A., Jeitler, M., Brunnhuber, S., Lüdtke, R., Büssing, A., Musial, F., et al. (2012). Iyengar yoga for distressed women: A 3-armed randomized controlled trial. *Evidence-Based Complementary and Alternative Medicine, 2012*, 408727. https://doi.org/10.1155/2012/408727
14. Ross, A., & Thomas, S. (2010). The health benefits of yoga and exercise: A review of comparison studies. *Journal of Alternative and Complementary Medicine, 16*(1), 3–12. https://doi.org/10.1089/acm.2009.0044

15. Song, H., Fang, F., Arnberg, F. K., Mataix-Cols, D., Fernández de la Cruz, L., Almqvist, C., & Valdimarsdóttir, U. A. (2019). Stress-related disorders and risk of cardiovascular disease: Population based, sibling controlled cohort study. *BMJ, 365*, l1255. https://doi.org/10.1136/bmj.l1255
16. Stephens, I. (2017). Medical yoga therapy. *Children (Basel), 4*(2), 12. https://doi.org/10.3390/children4020012
17. Today's Geriatric Medicine. (n.d.). *Yoga for respiratory health seniors scientific evidence.* Retrieved June 19, 2025, from https://www.todaysgeriatricmedicine.com/archive/ND22p18.shtml
18. Wang, F., & Szabo, A. (2020). Effects of yoga on stress among healthy adults: A systematic review. *Alternative Therapies in Health and Medicine, 26*(4), AT6214.
19. WesleyLife. (n.d.). *Healthy aging: The benefits of yoga for seniors.* Retrieved June 19, 2025, from https://www.wesleylife.org/blog/healthy-aging-the-benefits-of-yoga-for-seniors
20. World Health Organization (WHO). (n.d.). *Population ageing: Questions and answers.* Retrieved June 19, 2025, from https://www.who.int/news-room/questions-and-answers/item/population-ageing