Yoga and Stress

Yoga Alliance Webinar
May 28, 2020

Sat Bir S. Khalsa, Ph.D.

Assistant Professor of Medicine, Harvard Medical School
Director of Yoga Research, Yoga Alliance
Director of Research, Kundalini Research Institute
Editor in Chief, International Journal of Yoga Therapy
Research Associate, Benson Henry Institute for Mind Body Medicine
Research Affiliate, Osher Center for Integrative Medicine
Facebook Live—A Nation Under Pressure: The Public Health Consequences of Stress in America

Speaker: 19th U.S. Surgeon General Dr. Vivek Murthy and NIH Director Dr. Francis Collins

Facebook

Join the National Center for Complementary and Integrative Health and the National Institutes of Health on Facebook LIVE on September 7 at 11 a.m. ET, when Dr. Vivek Murthy, the former Surgeon General of the United States, will discuss stress in America in a conversation with NIH Director Dr. Francis Collins. Dr. Murthy and Dr. Collins will discuss what research is revealing about not only the ways in which stress affects us, but also the approaches people can incorporate into their lives to help reduce stress, such as regular exercise, social connection, and contemplative practices, including meditation.

https://youtu.be/_SGT1yi-fNo

The COVID-19 pandemic has altered every aspect of American life, from health and work to education and exercise. Over the long term, warns the American Psychological Association, the negative mental health effects of the coronavirus will be serious and long-lasting.

To better understand how individuals are coping with the extreme stress of this crisis, APA has adapted its annual Stress in America poll into a monthly analysis of stressors and stress levels. Taking a monthly “pulse” to understand how individuals are processing these extreme events will help health leaders and policymakers better align advice and resources to address these evolving mental health needs.

The Harris Poll conducted this survey on behalf of APA from April 24 to May 4, 2020; the online survey included 3,013 adults age 18+ who reside in the United States.
2020 Stress in America Graphs

Informational charts from "Stress in the Time of COVID-19, Volume One"

**Stress in the Time of COVID-19**

**Significant increase in stress related to Economy and Work during pandemic**

<table>
<thead>
<tr>
<th>Economy</th>
<th>Work</th>
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</thead>
<tbody>
<tr>
<td>May 2020</td>
<td>70%</td>
</tr>
<tr>
<td>August 2019</td>
<td>46%</td>
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<tr>
<td>May 2020</td>
<td>70%</td>
</tr>
<tr>
<td>August 2019</td>
<td>64%</td>
</tr>
</tbody>
</table>

**Stress in America**

**Parental sources of stress as a result of the coronavirus pandemic**

- A family member getting coronavirus: 34%
- Government response to coronavirus: 34%
- Disrupted routines/adjusting to new routines: 34%
- Getting coronavirus: 29%
- Managing distance/online learning for their child(ren): 21%
- Basic needs (i.e., availability of and access to food, housing): 70%
- Self-isolation: 67%
- Access to health care services: 66%
- Missing out on major milestones: 63%

**Government response to coronavirus as a source of stress**

Nearly 7 in 10 Americans (67%) say the government response to coronavirus is a significant source of stress in their life.

**Parent vs Non-Parent average reported stress levels during the past month related to the coronavirus pandemic**

<table>
<thead>
<tr>
<th>5</th>
<th>6.7</th>
<th>7.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little or no stress</td>
<td>Non-parent</td>
<td>Parent</td>
</tr>
<tr>
<td>A great deal of stress</td>
<td>5.5</td>
<td>6.7</td>
</tr>
</tbody>
</table>

American Psychological Association
1. Stress affects everyone.

2. Not all stress is bad.

3. Long-term stress can harm your health.

4. There are ways to manage stress.

5. If you're overwhelmed by stress, ask for help from a health professional.

5 Things You Should Know About Stress

Everyone feels stressed from time to time, but what is stress? How does it affect your overall health? And what can you do to manage your stress?

Stress is how the brain and body respond to any demand. Any type of challenge—such as performance at work or school, a significant life change, or a traumatic event—can be stressful.

Stress can affect your health. It is important to pay attention to how you deal with minor and major stressors, so you know when to seek help.

Here are five things you should know about stress.

![Stress infographic](image)
Defining Psychological Stress

- A positive or negative challenge
- Short-term or chronic/sustained
  - marriage, inheritance, birth of a baby, promotion
  - death, violence/war, poverty, unemployment, relationships, moving, exams, public speaking, commuting
- Stress versus stress-induced consequences
- Sense of control / manageability
- Internal versus external stressors
Characteristics/Consequences of Stress

- Can lead to positive and negative outcomes
  - positive stress adds anticipation, excitement
  - negative stress can lead to irritability, anxiety, depression
  - no stress can lead to boredom, dejection
  - if sustained, chronic or repetitive stress to burn-out/distress
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- Wide variety of psychological/physiological consequences/symptoms
  - mood impairment/disorders, immunosuppression, psychophysiological
# The Stress Response and How it Can Affect You

## Physical Responses
- Muscle aches
- ↑ Heart rate
- Weight Gain
- Constipation
- Muscle Twitching
- Low Energy
- Tight Chest
- Dizziness
- Stomach Cramps
- Insomnia
- Headache
- Nausea
- Dry Mouth
- Weight Loss
- Weakness
- Diarrhea
- Dry Throat
- Face Flushing
- Feeling Faint
- Neck Pain
- ↑ Urination
- Light Headedness
- Hot Flashes
- Pounding Heart
- Chest Pain
- Numb or Tingling Hands/Feet
- ↑ Blood Pressure
- Trembling
- Chills
- Sweating
- Choking Feeling
- Leg Cramps

## Emotional and Thought Responses
- Restlessness
- Agitation
- Worthlessness
- Depression
- Guilt
- Anger
- Nightmares
- Sensitivity
- Numbness
- Mood Swings
- ↓ Concentration
- Insecurity
- Anxiety - Stress
- Hopelessness
- Defensiveness
- Racing Thoughts
- Intense Thinking
- Expecting the Worst
- Lack of Motivation
- Forgetfulness
- Rigidity
- Intolerance

## Behavioral Responses
- Avoidance
- Neglect
- ↑ Smoking
- Poor Appearance
- ↑ Spending
- ↓ Eating
- Nail Biting
- ↑ Talking
- Sexual Problems
- Fidgeting
- ↓ Exercise
- Aggressive Speaking
- ↑ Sleeping
- ↓ Relaxing activities
- Withdrawal
- ↑ Alcohol use
- ↑ Eating
- Arguing
- Poor Hygiene
- Seeking Reassurance
- Skin Picking
- ↑ Body checking
- Foot Tapping
- Rapid Walking
- Teeth Clenching
- Multitasking
- ↓ Fun activities
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  - dependent on personality/lifestyle/outlook/attitude/beliefs
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- The stress response
Perceived Stressor

→

Central Nervous System

→

Sympathetic Nervous System

→

Sympathetic Nerves

→

Organs Tissues Cells

→

Adrenaline & Noradrenaline

→

Organs Tissues Cells

→

Hypothalamic Pituitary Adrenal Axis

→

Cortisol

→

Organs Tissues Cells
The Psychophysiology of Stress

Environmental stressors
(work, home, neighborhood)

Major life events

Individual differences
(genes, development, experience)

Perceived stress
(threat, helplessness, vigilance)

Physiologic responses

Behavioral responses
(fight or flight; personal behavior — diet, smoking, drinking, exercise)

Allostasis

Adaptation

Allostatic load

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- The stress response
- Unmanaged and chronic stress

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- Unmanaged and chronic stress
- Maladaptive behaviors – stimulants, poor nutrition, sleep restriction
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- Stress Tolerance and Resilience
Stress Tolerance and Resilience

Tolerance:
The ability to withstand significant stress or adversity

Resilience:
The ability to overcome, positively adapt to, and/or recover from significant adversity

Affected or determined by:

- genetics: inherited psychology and physiology
- childhood experiences both positive and negative
- personality characteristics
- existing stress
- lifestyle and health (diet, sleep and exercise)
- existing stress management resources/techniques
Stress Management

- Stressor reduction
  - if possible reducing the number/intensity of stressors
  - breaks, leisure activity, vacation
  - efficiently manage stressors (goal-setting, time management)

- Reduce maladaptive behaviors
  - caffeine, nicotine, poor nutrition, sleep restriction

- Medications

- Improvement of stress tolerance or resilience
  - Cognitive Behavioral Therapy – Positive Psychology
  - Regular exercise
  - The relaxation response, mind/body practices & yoga
Yoga Practices
Postures, Breathing, Relaxation, Meditation

Fitness
↑Flexibility
↑Strength
↑Coordination/Balance
↑Respiratory Function
↑Self-Efficacy

Self-Regulation
↑Stress Regulation
↑Emotion Regulation
↑Resilience
↑Equanimity
↑Self-Efficacy

Awareness
↑Attention
↑Mindfulness
↑Concentration
↑Cognition
↑Meta-cognition

Spirituality
↑Unitive State
↑Transcendence
↑Flow
↑Transformation
↑Life Meaning/Purpose

Global Human Functionality
↑Physical & Mental Health, ↑Physical Performance
↑Stress & Emotion Regulation, ↑Awareness/Mindfulness, ↑Meta-cognition
↑Positive Behavior, ↑Wellbeing, ↑Values, ↑Life Purpose & Meaning, ↑Spirituality
Effects of Yoga on Stress Management in Healthy Adults: A Systematic Review

Cecilia S. M. Chong, BS; Megumi Tsunaka, BS; Hector W. H. Tsang, PhD; Edward P. Chan, BA; Wai Ming Cheung, PhD

Objective • This article reports a systematic review and critical appraisal of the effect of yoga on stress management in healthy adults.

Methods • A systematic literature search was performed to identify randomized controlled trials (RCTs) and clinical controlled trials (CCTs) that assessed the effects of yoga on stress management in healthy adults. Selected studies were classified according to the types of intervention, duration, outcome measures, and results. They were also qualitatively assessed based on Public Health Research, Education and Development standards.

Results • The systematic review was based on eight RCTs and CCTs that indicated a positive effect of yoga in reducing stress levels or stress symptoms. However, most of the studies had methodological problems in that the intervention duration was short and limited follow-up data was available.

Conclusion • This review revealed positive effects of yoga on stress reduction in healthy adult populations. However, the result should be interpreted with caution due to the small number of studies and the associated methodological problems. Further studies to ascertain yoga’s long-term effects and the underlying biological mechanisms leading to its stress reduction effect should be conducted. (Alternt Ther Health Med. 2011;17(1):32-38.)

Cecilia S. M. Chong, BS, and Megumi Tsunaka, BS, are master of science students at The Hong Kong Polytechnic University, China. Hector W. H. Tsang, PhD, is a professor, and Edward P. Chan, BA, is a master of philosophy candidate in the Department of Rehabilitation Sciences, The Hong Kong Polytechnic University. Wai Ming Cheung, PhD, is an assistant professor in the Faculty of Education, The University of Hong Kong.

Corresponding author: Hector W. H. Tsang, PhD
E-mail: rshtsang@inet.polyu.edu.hk

alternative therapy, has been increasingly used for stress reduction. There has been an emerging body of research to support its effectiveness to enhance mental, physical, and cognitive performance. Yoga is regarded as a mind-body intervention that arose in India 4000 years ago. The term yoga is derived from the Sanskrit word Yuj, meaning “to unite” or “to yoke.” It refers to a discipline of asceticism and meditation that pertains to spiritual experience and gaining insight on the nature of existence. Literally, “to unite” refers to the union of the mind, body, and spirit. Yoga practice includes the use of physical postures (asanas), controlled breathing (pranaya-
Yoga as an Alternative and Complementary Approach for Stress Management: A Systematic Review

Manoj Sharma, MBBS, MCHES, PhD, FAAHB

Abstract
Stress has become a global public health problem. Yoga offers one possible way of reducing stress. The purpose of this study was to look at studies from 2011 to May 2013 and examine whether yoga can be an efficacious approach for managing stress. A systematic search of Medline, CINAHL, and Alt HealthWatch databases was conducted for quantitative articles involving all schools of yoga. A total of 17 articles met the inclusion criteria. Six of these were from the United States, 3 from India, 2 from the United Kingdom, and 1 each from Australia, Brazil, Germany, Iraq, Sweden, and Taiwan. Of the 17 studies, 12 demonstrated positive changes in psychological or physiological outcomes related to stress. Despite the limitations, not all studies used a randomized controlled design, had smaller sample sizes, had different outcomes, had nonstandardized yoga intervention, and had varying lengths, yoga appears to be a promising modality for stress management.

Keywords
yoga, mind–body interventions, stress, anxiety

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Mindfulness-based stress reduction for healthy individuals: A meta-analysis

Bassam Khoury a,b,*, Manoj Sharma c, Sarah E. Rush d, Claude Fournier e

a Department of Psychology, Harvard University, United States
b Department of Psychology, McGill University, Canada
c School of Health Sciences, Jackson State University, United States
d Department of Health Sciences, University of Alabama, United States
e Centre de santé et de services sociaux de la Vieille-Capitale, Canada

Abstract

Background: An increasing number of mindfulness-based stress reduction (MBSR) studies are being conducted with nonclinical populations, but very little is known about their effectiveness.

Objective: To evaluate the efficacy, mechanisms of actions, and moderators of MBSR for nonclinical populations.

Data sources: A systematic review of studies published in English journals in Medline, CINAHL or Alt HealthWatch from the first available date until September 19, 2014.

Study selection: Any quantitative study that used MBSR as an intervention, that was conducted with healthy adults, and that investigated stress or anxiety.

Results: A total of 29 studies (n = 2668) were included. Effect-size estimates suggested that MBSR is moderately effective in pre–post analyses (n = 26; Hedge’s g = .55; 95% CI [.44, .66], p < .0001) and in between group analyses (n = 18; Hedge’s g = .53; 95% CI [.41, .64], p < .00001). The obtained results were maintained at an average of 19 weeks of follow-up. Results suggested large effects on stress, moderate effects on anxiety, depression, distress, and quality of life, and small effects on burnout. When combined, changes in mindfulness and compassion measures correlated with changes in clinical measures at post-treatment and at follow-up. However, heterogeneity was high, probably due to differences in the study design, the implemented protocol, and the assessed outcomes.

Conclusions: MBSR is moderately effective in reducing stress, depression, anxiety and distress and in ameliorating the quality of life of healthy individuals; however, more research is warranted to identify the most effective elements of MBSR.
Effects of Yoga on Stress Among Healthy Adults: A Systematic Review

Feifei Wang, MSc; Attila Szabo, PhD, DSc

ABSTRACT

Background • Yoga was recommended in both clinical and nonclinical populations as therapy methods. The diversity of yoga practice as a therapy method has rarely been discussed and it is essential to address the effects of yoga on stress.

Primary Study Objective • This article aims to investigate the effect of different types of yoga on stress in healthy population. On the other hand, the authors intended to figure out yoga effects on stress systematically.

Methods/Design • A systematic literature review was conducted to identify articles that assess the effect of yoga and yoga-related interventions on stress reduction in nonclinical populations. Studies were classified according to the length of the intervention, yoga type, and measures of outcome. The studies were selected throughout last 5 years (January 2014 to November 2018) by using the key searching term yoga and stress incorporation with tension and pressure. The selection process followed the Prisma flow diagram.

Results • Totally, 12 articles elaborating on the effects of yoga or yoga-related interventions on stress management and remission were included in the review. This review included various types of yoga practice (e.g., Hatha yoga, Bikram yoga, Kundalini yoga, Sudarshan Kriya yoga, Kripalu yoga, Yin yoga). A time spectrum was conducted from 4 wks to 28 wks. This review revealed that most types of yoga have positive effects on stress reduction in healthy populations.

Conclusion • Further studies are recommended to examine the long-term effect of yoga and underlying psychological mechanisms causing stress and mental restrain. In addition, it is suggested to consider age as a risk factor affecting the effect of yoga on stress. (Altern Ther Health Med. [E-pub ahead of print.])
Research Studies
Yoga & Stress
Reasons for Practice in a Beginners Program

Stress Beginner Female Students

“Respondents commonly started practicing yoga for muscle tone and flexibility, but often continued practicing for stress reduction.”

“While 58.4% of respondents gave ‘reduce stress or anxiety’ as a reason for starting, 79.4% found this to be a reason for continuing.”

“Of those who reported using yoga for a specific health or medical condition, more people used yoga to address stress management and anxiety than back, neck or shoulder problems, suggesting that mental health may be the primary health-related motivation…”
Reasons for Practice

…the most commonly endorsed primary reason for adopting yoga practice was exercise, followed by flexibility and stress relief…

Over half of students and 40 percent of teachers also reported that “relaxation,” “stress relief,” and “flexibility” were additional reasons that they adopted yoga practice…

The primary reason for continuing to practice yoga… Among students, spirituality and stress relief were the most common reasons…

Reasons for Practice

Flexibility and Stress Relief and Reduction are the Two Top Reasons Practitioners Began and Continue

50% of respondents cited improving overall health as a reason to start and to continue practicing.

Motivation to Start Practicing
- Flexibility 61%
- Stress relief/reduction 56%
- General fitness/conditioning 49%
- Improve overall health 49%
- Physical fitness/getting in better... 44%
- Strength 42%
- Mental health 37%
- Spiritual development 24%
- Weight loss 21%
- Physical therapy 18%
- Medical condition... 10%
- Prenatal health 3%
- None of the above 2%
- Other 1%

Motivation to Continue Practicing
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- Strength 40%
- Mental health 35%
- Spiritual development 23%
- Weight loss 20%
- Physical Therapy 14%
- Medical condition... 9%
- Prenatal health 3%
- None of the above 2%
- Other 1%
- I want to become a teacher 1%

Q. Which of the following personal reasons motivated you to start practicing yoga?
Q. Which of the following personal reasons currently motivate you to practice yoga?

Reasons for Practice

![Bar chart showing reasons for practice]

**Figure 1** Initial and current principal reasons for practising yoga.


[https://bmjopen.bmj.com/content/bmjopen/10/1/e031848.full.pdf](https://bmjopen.bmj.com/content/bmjopen/10/1/e031848.full.pdf)
**Table 3** Perceived helpfulness in managing health issues and conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>n*</th>
<th>Helpful (%)</th>
<th>Neither helpful nor unhelpful (%)</th>
<th>Unhelpful (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Musculoskeletal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Back pain</td>
<td>1070</td>
<td>94.8</td>
<td>3.8</td>
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<tr>
<td>Neck/shoulder pain</td>
<td>903</td>
<td>91.7</td>
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<tr>
<td>Arthritis</td>
<td>261</td>
<td>87</td>
<td>12.3</td>
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<tr>
<td>Other</td>
<td>424</td>
<td>82.8</td>
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<tr>
<td><strong>Mental health</strong></td>
<td></td>
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<tr>
<td>Stress</td>
<td>997</td>
<td>98.4</td>
<td>1.4</td>
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<tr>
<td>Anxiety</td>
<td>712</td>
<td>96.8</td>
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<td>Depression</td>
<td>513</td>
<td>93.2</td>
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<td>Sleep issues</td>
<td>463</td>
<td>79</td>
<td>19.7</td>
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<td>Other</td>
<td>75</td>
<td>96</td>
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<td><strong>Women’s health</strong></td>
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<tr>
<td>Pre/post pregnancy</td>
<td>86</td>
<td>89.5</td>
<td>8.1</td>
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<tr>
<td>Pre-menstrual syndrome</td>
<td>275</td>
<td>76.5</td>
<td>22.5</td>
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<td>Menopause (symptoms)</td>
<td>224</td>
<td>68.7</td>
<td>29.4</td>
<td>1.9</td>
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<tr>
<td>Other</td>
<td>98</td>
<td>77.6</td>
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<td><strong>Cardiovascular</strong></td>
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<tr>
<td>High blood pressure</td>
<td>160</td>
<td>73</td>
<td>26.3</td>
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<td>Other</td>
<td>57</td>
<td>66.7</td>
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<tr>
<td><strong>Respiratory</strong></td>
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<td>Asthma</td>
<td>214</td>
<td>72.4</td>
<td>27.1</td>
<td>0.5</td>
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<tr>
<td>Other</td>
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<tr>
<td><strong>Gastrointestinal</strong></td>
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<tr>
<td>Irritable bowel syndrome</td>
<td>309</td>
<td>69.3</td>
<td>29.8</td>
<td>1</td>
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<tr>
<td>Other</td>
<td>98</td>
<td>68.4</td>
<td>26.5</td>
<td>5.1</td>
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<tr>
<td><strong>Neurological</strong></td>
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<tr>
<td>Migraines</td>
<td>243</td>
<td>54.7</td>
<td>41.2</td>
<td>4.1</td>
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<tr>
<td>Headaches</td>
<td>415</td>
<td>68.7</td>
<td>22.3</td>
<td>2.7</td>
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<tr>
<td>Other</td>
<td>53</td>
<td>83</td>
<td>17</td>
<td>0</td>
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<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Allergies</td>
<td>296</td>
<td>27.2</td>
<td>66.4</td>
<td>6.4</td>
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<tr>
<td>Fertility issues</td>
<td>74</td>
<td>32.4</td>
<td>58.1</td>
<td>9.5</td>
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</table>

*Number stating they had experienced the health condition/issue before or since practising yoga. Only conditions with responses greater than 50 (n) are included.


https://bmjopen.bmj.com/content/bmjopen/10/1/e031848.full.pdf
### Table 2: Independent groups t-tests comparing mindfulness and stress scores of beginner and advanced groups of Hatha Yoga practitioners

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
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<tbody>
<tr>
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<tr>
<td>Beginner</td>
<td>24</td>
<td>34.91</td>
<td>6.93</td>
<td>3.07</td>
<td>.00*</td>
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<tr>
<td>Advanced</td>
<td>28</td>
<td>29.82</td>
<td>4.98</td>
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<td>MAAS</td>
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<tr>
<td>Beginner</td>
<td>24</td>
<td>4.28</td>
<td>0.59</td>
<td>−2.19</td>
<td>.03*</td>
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<tr>
<td>Advanced</td>
<td>28</td>
<td>4.62</td>
<td>0.51</td>
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</table>

*PSS perceived stress scale (Cohen et al. 1983), MAAS mindful attention awareness scale (Brown and Ryan 2003)

* Significant at the .05 level (2-tailed)

Dose-Dependence of Yoga Practice


Stress in College Students


https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5433116/?report=printable
Yoga in Education Professionals

From: *A Pragmatic Controlled Trial of a Brief Yoga-Based Program for Education Professionals’ Psychological and Occupational Health. Dyer NL, Borden S, Dusek JA, Khalsa SBS, (under revision, Complementary Therapies in Medicine).*
Stress Quotes

• “I give myself time to breathe & center myself before acting irrationally.”
• “I'm better able to handle my emotions. I can stay calm and centered in trying times.”
• “I have been more mindful and responsive, rather than reactive.”
• “…take control of my emotions and reactions. I can practice impulse control and empathy. This allows me to help even very stressed and combative clients.”
• “High-stress moments are more easily tolerated & bounced back from…”
• “…able to relax and not react to every little thing that happens.”
• “Huge shift in how I process stress, both professional and personal. …deepened my self-care practices …lifted me out of burnout.”
Serving the Yoga Community

Yoga Alliance® is committed to promoting and supporting the integrity and diversity of the teaching of yoga.
Scientific Research on Yoga

Substantial research has been done on many of the populations and parts of the body that COVID-19 preys on most. Use this section of Yoga Alliance's website to learn more about scientific research on the effects of yoga on the elderly, respiratory function, anxiety, and depression, to name a few.

Perhaps more than ever, yoga is being widely studied and evaluated for its positive effects and benefits. At Yoga Alliance, we curate the latest and most relevant research on yoga's applications in health, wellness, and disease. We have filtered it in a digestible manner for our Registered Yoga Schools and Registered Yoga Teachers as well as for the broader yoga community.

This evidence-based research not only reveals the science of yoga, it also explains its therapeutic efficacy when used in conjunction with conventional medicine. Our goal is that this impactful content will be utilized in a way that highlights even more of yoga's ancient, multi-faceted ability to improve lives.

Join us! Let us know how research on yoga is important or valuable to you on social media (@YogaAlliance) or by emailing us at research@yogaalliance.org. We honor and value your personal experiences and look forward to featuring your stories.

Our Research Conversation

Our Director of Yoga Research

Our Director of Yoga Research Dr. Sat Bir Singh Khalsa is a renowned yoga research expert and yoga teacher who has committed his professional life to clinical research surrounding yoga's full spectrum of healing efficacy.

Learn More

Featured Research Video

YOGA and AGING

Learn about the process of aging and how yoga affects (and even slows down) aging.

Watch Now

Featured Health News

Cough-and-Sneeze Etiquette

Visit our COVID-19 website. YogaAlliance.org, for the most recent and applicable information on the coronavirus and the COVID-19 pandemic.

Learn More

Archived Videos

Browse our selection of yoga research videos to learn more about research done in specific categories of health and wellness.
Cognitive and Emotional Functioning
AWARENESS/MINDFULNESS/INTEROCEPTION, EMOTION AND STRESS REGULATION, METACOGNITION

Our hope is for yoga schools and yoga teachers to utilize this impactful content in their teachings to promote and highlight yoga's evident multi-faceted ability to improve lives. Let us know how research on yoga is important or valuable to you on social media (@YogaAlliance) or by emailing us at research@yogaalliance.org. We honor and value your personal experiences and look forward to featuring your stories.

These citations were curated by Yoga Alliance's Director of Yoga Research, Dr. Sat Bir Singh Khalsa.

Review Papers (What's this?)

Modern postural yoga as a mental health promoting tool: A systematic review.
Domingues RB.
[abstract]

Sullivan MB, Erb M, Schmaizi L, Moonaz S, Nogge Taylor J, Porges SW.
[full text]

The Effects of Yoga on Positive Mental Health Among Healthy Adults: A Systematic Review and Meta-Analysis.
Hendriks T, de Jong J, Cramer H.
[abstract]

Yoga, mindfulness-based stress reduction and stress-related physiological measures: A meta-analysis.
Pascoe MC, Thompson DR, Ski CF.

Notable Publications (What's this?)

Greater Anteroposterior Default Mode Network Functional Connectivity in Long-Term Elderly Yoga Practitioners.
Front Aging Neurosci. 2019 Jul 2;11:158.
[full text]

Schmaizi L, Powers C, Zanesco AP, Yetz N, Groessl EJ, Saron CD.
[abstract]

A yoga program for cognitive enhancement.
Brunner D, Abramovitch A, Etherton J.
[full text]

The relationship between yoga involvement, mindfulness and psychological well-being.