



Department of Integrative Medicine  
National Institute of Mental Health & Neuro Sciences

# samatvam

A Quarterly Newsletter

Issue: 34

October 2024

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# Addressing Work-Related Stress: The Benefits of Integrating Yoga into the Workplace



**Dr. Kashinath Samagandi**

*Director, Morarji Desai National Institute of Yoga  
Ministry of Ayush, Government of India*

In today's fast-paced and competitive professional landscape, work-related stress is a pervasive concern that affects both personal well-being and organizational efficiency. Over the past fifty years, a significant decline in physical activity at work has resulted in increased sitting time, exacerbating health issues among professionals.

## Impact of Sedentary Lifestyles

Recent research highlights the detrimental effects of prolonged sitting, which is prevalent across various industries including business, healthcare, technology, education, finance, engineering, and the arts. Data indicates that every additional two hours of sitting increases the risk of obesity by 5% and diabetes by 7%. Extended sitting also contributes to musculoskeletal problems, notably low back pain. Gianoudis et al. found that each extra hour of sitting time is associated with a 33% increase in the risk of sarcopenia, while sedentary jobs are linked to higher risks of several cancers, including colorectal,

ovarian, prostate, and endometrial cancer.

## Stress and Physiological Markers

Stress, commonly experienced by professionals, has a notable impact on physiological markers such as cortisol levels, respiratory rate, and pulse rate. Long-term sitting combined with stress often leads to elevated cortisol levels, heightened respiratory rates, and increased pulse rates, all of which contribute to a heightened sense of tension and restlessness.

## Yoga as a Remedial Approach

Given the significant impact of stress and sedentary behaviour, there is a growing need to explore effective solutions. Yoga, with its rich traditions and holistic approach, offers a promising remedy.

The “Y Break – Yoga Break at Workplace” protocol was developed to help professionals achieve relaxation, rejuvenation, and renewed focus, thereby enhancing overall well-being.

Yoga is both an experiential practice and a scientific discipline that fosters inner harmony and a sense of unity with the universe. Integrating brief yoga sessions into the workday has been shown to provide substantial benefits. Studies indicate that regular workplace yoga sessions lead to notable reductions in perceived stress and improvements in emotional well-being. Furthermore, yoga's emphasis on mindful movement and controlled breathing counteracts the body's stress responses, thereby enhancing quality of life.

## The Y Break Protocol

The “Y Break - Yoga Break at Workplace” program was conceived by the Ministry of AYUSH, Government of India, with the aim of reducing stress, refreshing professionals, and increasing productivity through short, targeted yoga practices. This protocol is designed to be easily incorporated into the workday, offering simple yet effective exercises that can be performed in just five minutes. The routine includes:

1. **Tadasana & Urdhva-Hasttotanasana:** Standing postures that promote alignment and flexibility.
  2. **Shoulder Rotation & Uttana-Mandukasana:** Exercises that relieve tension in the shoulders and back.
  3. **Ardha Chakrasana & Prasarita Padottanasana:** Postures that stretch and strengthen the spine and legs.
  4. **Kati Chakrasana:** A spinal twist that enhances mobility.
  5. **Deep Breathing & Nadishodhana Pranayama:** Breathing techniques that calm the mind and balance energy.
  6. **Bhramari Pranayama & Dhyana:** Breathing exercises and meditation to reduce stress and improve focus.
- The Y Break protocol can be practiced twice daily – once in the first half and once in the second half of the workday – to maximize its benefits. This structured approach not only aids in stress management but also enhances

mental clarity, productivity, and overall work-life balance.

Incorporating yoga into the workplace through the Y Break protocol offers a practical and scientifically supported method to address the challenges of modern professional life. By integrating these simple yoga practices, individuals can experience improved well-being, reduced stress, and increased productivity, ultimately fostering a more harmonious and effective work environment.





# Biomechanics in Action



## Reinhard Bögle

*Dipl. Päd., Head of Yoga Teacher Education at the Yoga Forum München e.V.,  
Systemenergetiker (Systemic Psychotherapy)  
Adjunct Professor, Centre for Behavioural Medicine (Pune)*

Biomechanics is the study and analysis of movement and posture. It distinguishes between the geometry of motion (kinematics) and the forces that cause or result from movement and posture (kinetics).

Biomechanics helps analyze body movements, examining how internal forces – such as muscles, ligaments, and joints – create external motion and postures. It aids in optimizing muscle recruitment and performance, supporting the proper functioning of the brain,

nervous system, and metabolism. Biomechanics also involves understanding how to apply proper load-bearing (body weight) and load transmission techniques, which helps preserve internal body performance while improving external efficiency in the workplace. Everyone has their unique biomechanics based on their legs, arms, and body structure, which they can learn to understand, regulate, and stabilize during work activities. This leads to a multifaceted regulation and stabilization of the body (allostasis), both internally and externally.

## Load Transmission and Extensor Chain

The preferred method of load transmission occurs through the bones, which are stable and rigid structures that support the body. The desirable anti-gravity activity is managed by the extensor muscle chain (see Figure 1). Two key muscles in this chain are the quadriceps (front muscles of the upper legs) and the triceps (back muscles of the upper arms). The upper legs support the body down to the feet and up toward the upper chest. Similarly, the upper arms support the hands and also extend toward the upper chest.

In every position, the key idea is to transfer the load onto the bones and engage the extensor muscle chain. In the modern workplace, many activities are performed while sitting, often at a desk in front of a computer. The main difference between standing and sitting is that, while standing, the entire body weight is supported by the heels, whereas, when sitting, the two primary stabilizing points are the sitting bones.

## Healthy Positions

Figure 2 highlights the key points for achieving a healthy and ergonomic position while

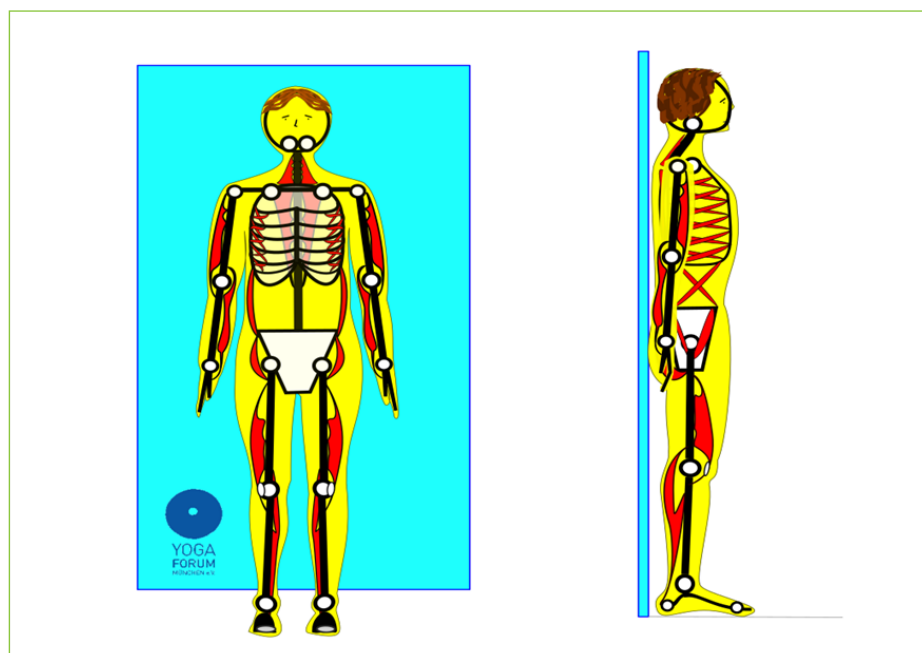


Figure 1: Standing (Tad-Asana) showing the extensor-muscle-chain.

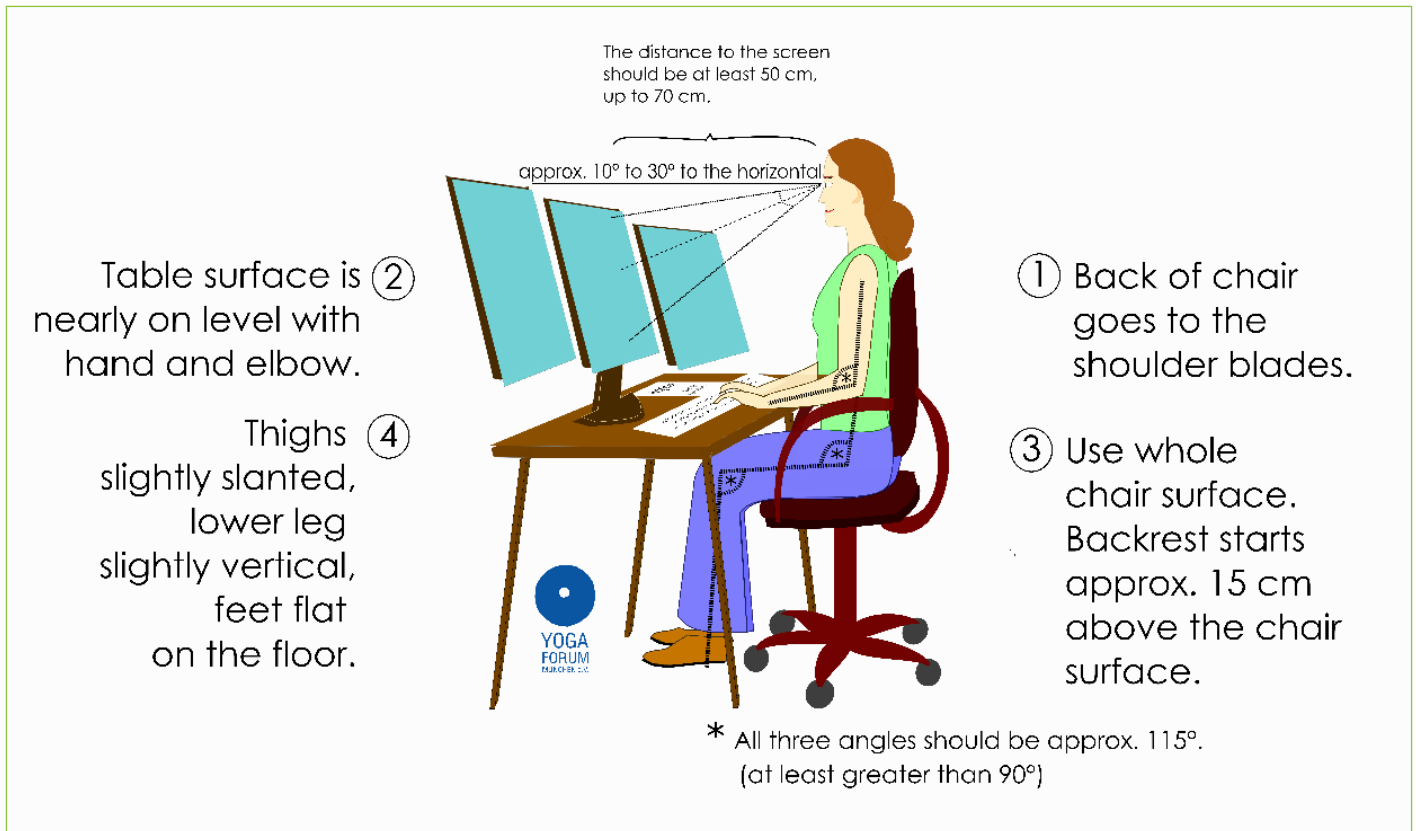


Figure 2: A useful position for working on a desk.

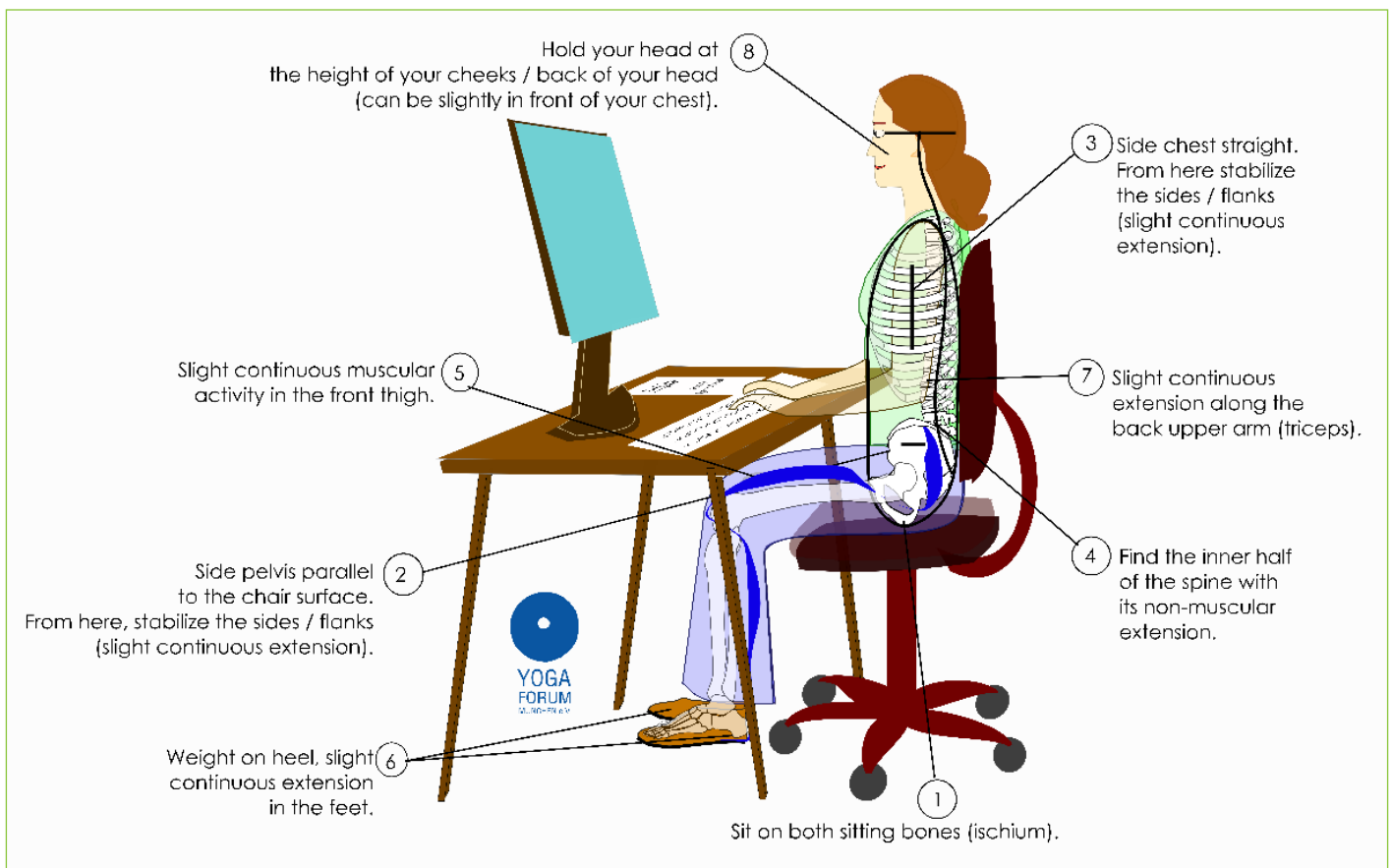


Figure 3: The ideal placement of your screen should be on level with your eyes.

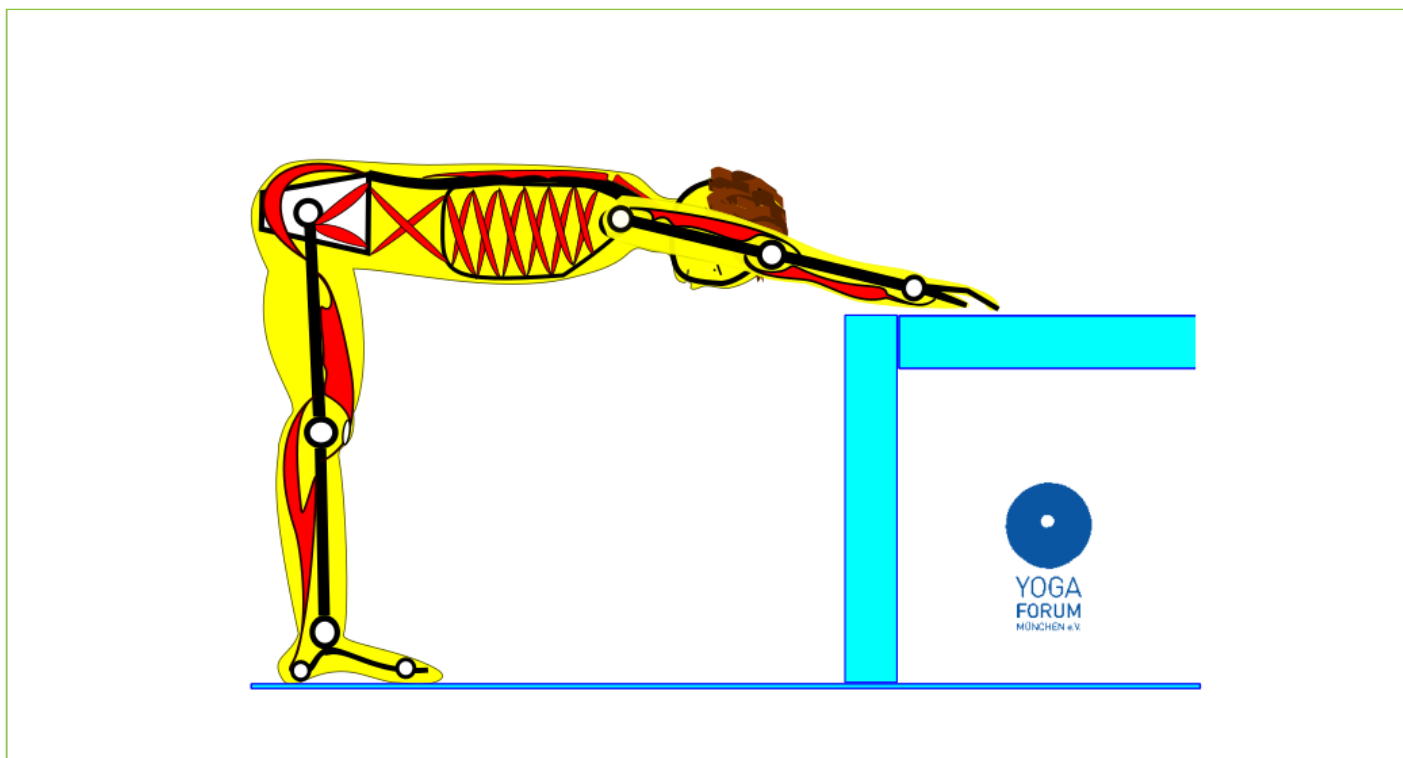


Figure 4: Half-dog pose using a desk.

working at a desk. The idea is that this position should not be maintained permanently, as movement and regular changes are encouraged. However, it serves as a useful reference point to return to periodically during work to maintain good posture.

Figure 3 focuses on the optimal placement of the computer on your desk, as well as the ideal angles for the feet, lower legs, torso, and elbows. The top edge of your computer screen should be at eye level when you sit upright. This allows your eyes to naturally look downward, enabling you to view the entire screen without needing to move your head.

### Exercises for the Workplace

If someone wants to take a short break during work, two useful yoga positions can help. The first is Tadasana (Mountain Pose): Stand next to a wall or in a corner for about one minute, ensuring that the skin of your back touches the wall (see Figure 1).

The second position is the Half Dog Pose, using a desk for support (see Figure 4). This position should be held for one to two minutes, keeping the knees soft and the back slightly rounded. In both poses, it is important to maintain steady breathing and a relaxed state of awareness.

In summary, one of the two core principles of biomechanics is the appropriate application of force. The key is to use only as much force as necessary to support the body's weight. The geometry of the position is secondary and less crucial. This distinction is important because individual variations exist, and the ideal posture might not always be achievable. However, utilizing the correct anti-gravity force remains the primary factor in biomechanical effectiveness.

Every other work position can be done according to the same principles.



## OUTREACH ACTIVITIES

**Dr. Kishore Kumar**, Professor & Head, Department of Integrative Medicine

- Served as an expert panellist at GERON 2024 – 20<sup>th</sup> Annual National Conference of IAGMH (Indian Association for Geriatric Mental Health), discussing “Holistic Approaches to Geriatric Mental Health” Holistic Approaches to Geriatric Mental Health, hosted by the Department of Psychiatry, NIMHANS on 14<sup>th</sup> September 2024.



- Attended the Comprehensive Mental Health Program at Munsyari, Uttarakhand. During this week-long program, he led a training initiative along with a focus group discussion for AYUSH doctors. He was accompanied by Dr. Shubhangi Baspure (Senior Project Associate), Dr. Varsha Vijay (Senior Resident) and Ms. Adhya Biradar Yoga (Therapist) from project NAMAN (NIMHANS-AHT Comprehensive Mental Health Action Program for Rural Communities).



- Conducted an awareness program in Government Adarsh College, Munsyari with Dr. Sidharth, Associate Professor of Clinical Psychology, Dr. Shubhangi Baspure and Ms. Adhya Biradar from project NAMAN.



**Dr. Hemant Bhargav**, Associate Professor, Department of Integrative Medicine

- Participated in the 7<sup>th</sup> International Leh Symposium as the Invited Speaker and delivered a talk on “Yoga and Meditation: Evidence-Based Traditional Medicine for Wellness”. The symposium was held at Leh Mahabodhi International Meditation Centre, Leh, Ladakh from 4<sup>th</sup>-7<sup>th</sup> August 2024.



- Participated in the GERON 2024 – 20<sup>th</sup> Annual National Conference of IAGMH (Indian





Association for Geriatric Mental Health) as panellist contributing to a discussion on “Holistic Approaches to Geriatric Mental Health” organised

by the Department of Psychiatry, NIMHANS on 14<sup>th</sup> September 2024.

**Dr Shivarama Varambally**, Professor of Psychiatry, **Dr. Kishore Kumar**, Professor & Head, Department of Integrative Medicine and **Dr. Aarti Jagannathan**, Additional Professor of Psychiatric Social Work

- Took part in the National Workshop on Integrative Mental Health as expert panellists on 24<sup>th</sup> August 2024. The workshop was organized by the E. Krishnamurthy Buddhi Clinic and Swami Dayananda Krupa Care (A Unit of Aim for Seva), Chennai, Sriperumbudur. Its online format allowed for a broad range of participation, facilitating discussions on innovative strategies that combine modern psychiatry with traditional practices.

## Certificate Course in Mental Health

The Certificate Course in Mental Health (CCMH) was inaugurated online by Vd. Rajesh Kotecha, Secretary, Ministry of AYUSH, Government of India, and Dr. B.N. Gangadhar, Chairman, National Medical Commission. The event also saw the participation of Dr. Pratima, Director, NIMHANS and Dr. B S Shankaranarayana Rao, Registrar,

NIMHANS and other faculty members. The CCMH is designed to provide comprehensive knowledge of mental health, integrating modern medical science with traditional practices. This course aims to equip healthcare professionals with the skills to address mental health challenges through a multidisciplinary approach.





## Important Visitors

1. Dr. Kaustubh Upadhyaya, Advisor, Ministry of AYUSH, Government of India visited the Department of Integrative Medicine on 6<sup>th</sup> July 2024.
2. The department hosted Yutaro Setoya and Athreyi Ganguli, public health professionals from the World Health Organization (WHO). They were provided with an overview of the department's activities and initiatives, fostering international collaboration and knowledge exchange in mental health.

## Awards

Dr. Bharath Holla received the ReproNim/INCF Train the Trainer Fellowship Award for 2024 (<https://www.repronim.org/fellowship.html>). He also participated in the Brainhack and Annual Meeting of the Organization for Human Brain Mapping conference between 23-27 June 2024 in Seoul, Korea



## Welcoming new students

### Post-Doctoral Fellowship in Integrative Mental Health & Neurosciences



Dr. Sadavrat Amlani, a resident of Delhi, holds a BAMS and an MD in Ayurveda, specializing in Manovigyan evam Manas Roga, from the Faculty of Ayurveda, IMS, BHU, Varanasi. He joined this course with the belief that integration is essential in

today's healthcare landscape. Ayurveda focuses on holistic health, emphasizing the harmony of mind, body, and spirit. Yoga complements these principles by offering techniques to manage stress and support mental well-being. Meanwhile, modern medicine provides evidence-based approaches, including pharmacological treatments, psychotherapy, and advanced diagnostics. Dr. Amlani believes that integrating Ayurveda, Yoga, and modern medicine offers a well-rounded approach to mental health, drawing on the strengths of each system for better patient outcomes.

### Post-Doctoral Fellowship in Integrative Psychiatry



Dr. P Vyshali, hailing from Hyderabad, Telangana, completed her MBBS at Kasturba Medical College, Mangalore, and earned her MD in Psychiatry from Father Muller Medical College, Mangalore. Following her role as

a Senior Resident at Adesh Medical College, Ambala, she has now joined the department as a Post-Doctoral Fellow in Integrative Psychiatry. Intrigued by the science of yoga since childhood, Dr. Vyshali seeks to deepen her understanding of Ayurvedic and yogic perspectives on mental illness and wishes to apply these principles to enrich her clinical practice. Passionate about creating scalable and culturally relevant solutions for diverse populations across India, in the long-term she aims to blend cutting-edge technology with traditional methods.

## MD Ayurveda in Manovigyan evum Manas Roga



Dr. Mahadeshwari M is from Mandya District, Karnataka. She completed her Bachelor of Ayurvedic Medicine and Surgery (BAMS) at the Government Ayurveda Medical College in Bengaluru.

Currently enrolled in the MD program in Integrative Medicine, Dr. Mahadeshwari aims to explore the pathway that connects ancient Ayurvedic practices with contemporary patient care in mental health. Guided by the foundational principles of Ayurveda and Yoga, she seeks to contribute to a holistic approach to mental health care.



Dr. Subana R Samad is from Trivandrum, Kerala. She holds a Bachelor of Ayurvedic Medicine and Surgery (BAMS) degree from Ashtamgam Ayurveda Vidyapeedam in Kerala. Currently pursuing her

MD in Ayurveda (Manovigyan evum Manas Roga) at NIMHANS, Dr. Subana focuses on Ayurvedic perspectives regarding the mind and its disorders. Through her studies, she aims to deepen her understanding of both Ayurvedic and modern approaches to psychiatric and neurological conditions, equipping her to deliver holistic care and contribute to advancements in integrative medicine.



Saranya Raghavan hails from Kasargod District, Kerala. She earned her Bachelor of Ayurvedic Medicine and Surgery (BAMS) degree from Mannam Ayurveda Cooperative Medical College in Pandalam. With nearly a year of

experience as a Resident Medical Officer at Alvas Ayurveda Medical College Hospital, Saranya's passion for Ayurveda has driven her to explore the realm of integrative medicine. Influenced by friends in the field, she developed a keen interest in psychiatry, yoga, and Ayurveda. Through this course, Saranya aims to deepen her understanding and enhance her ability to integrate these disciplines, ultimately providing holistic patient care.

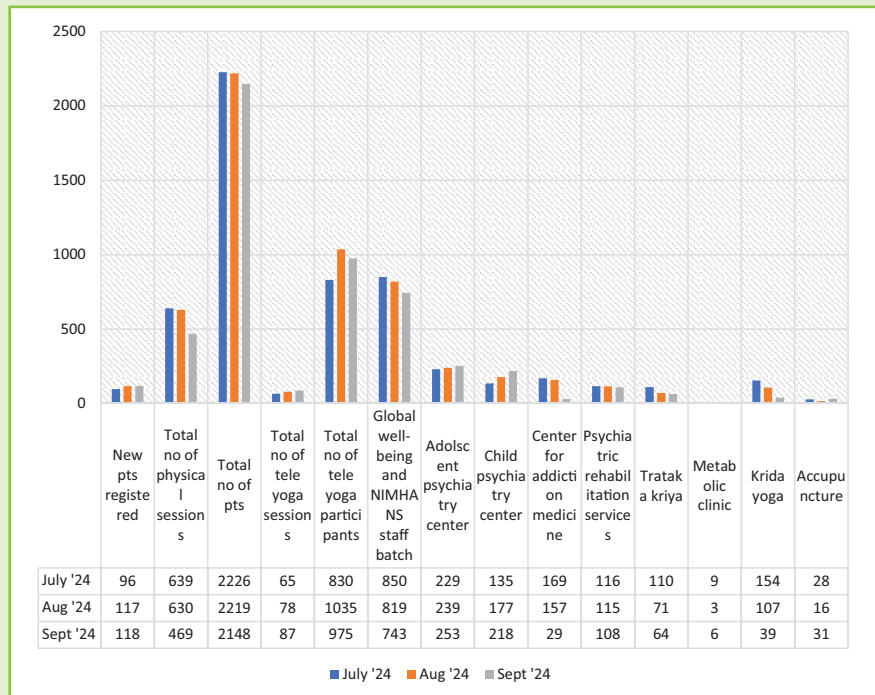


Vandana P V is a first-year MD student in the Integrative Medicine Department. Originally from Kannur, Kerala, she earned her Bachelor of Ayurvedic Medicine and Surgery (BAMS) degree from PN Panicker Souhruda Ayurveda

Medical College in Kasargod. For Vandana, NIMHANS represents an exciting new chapter in her academic journey. She looks forward to gaining valuable clinical exposure while navigating the diverse systems of medicine and languages that the institution offers.

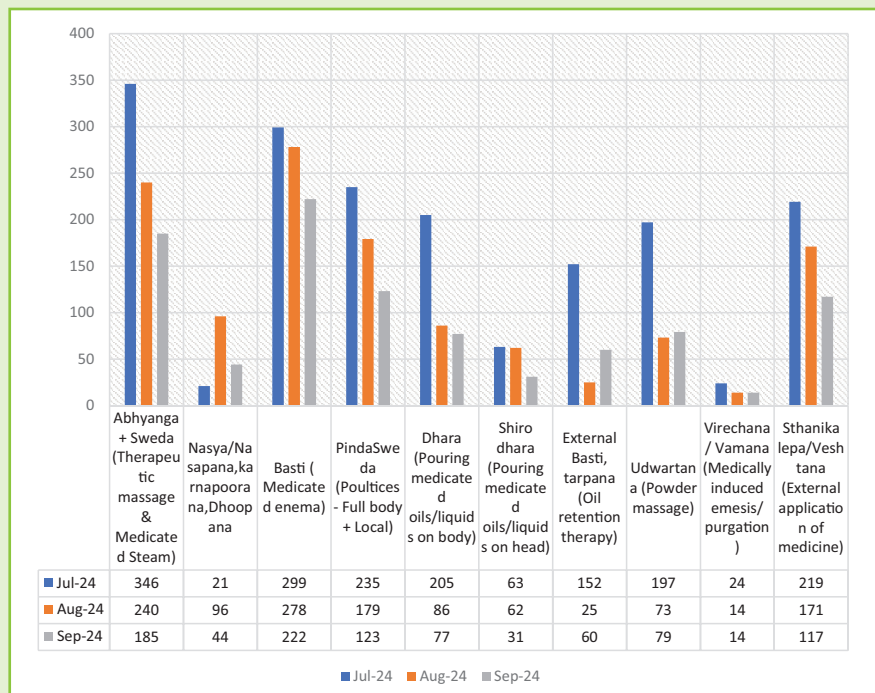
## Yoga Therapy for Psychiatry and Neurological Disorders at NICY

The NIMHANS Integrated Centre for Yoga (NICY) which is a part of the Department of Integrative Medicine offers yoga therapy for inpatients as well as outpatients. Referrals come from all the clinical departments of NIMHANS including IMD with various diagnoses. It also includes tele-sessions conducted for promotion of positive health and general wellbeing of the public from India and abroad.



## Panchakarma Procedures

The Department of Integrative Medicine offers various Panchakarma (Biopurificatory) procedures as required for the admitted patients and also on OPD basis along with modern medicines, integrated Ayurveda and Yoga therapies. These Panchakarma procedures aim to remove toxic substances from the body, speed up the metabolism, reduce body weight, restore constitutional balance, strengthen the immune system, reduce the effects of stress on the body and mind, enhance self-reliance, vitality, clarity of mind, and bring about a sense of well-being. The details of the commonly done procedures in the months of July, August and September are given in the chart.







Book-Post

To,

Mr/Mrs/Dr .....

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Department of Integrative Medicine  
National Institute of Mental Health and Neuro Sciences  
Hosur Road, Bengaluru – 560029, Karnataka  
Phone: 080-26995730  
E-mail: imd.nimhans@gmail.com  
Website: <https://nimhansyoga.in/>