



# Sleep, Quality of Life, and the Intricate Relationship with Good Health

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**Keywords:** Mental health, Noncommunicable diseases, Physical health, Sleep deprivation, Sleep disturbance.

*Journal of The Association of Physicians of India* (2026); 10.59556/japi.74.1711

*Sleep is the golden chain that ties health and our bodies together—Thomas Dekker*

Sleep is an integral part of human life's daily cycle. A day or two without sleep reflects a restless mind. Loss of sleep, or even the lack of it, makes one perturbed. Good sleep is a dynamic, active biological process. It affects several domains, be it cognitive or emotional, and its effects contribute to maintaining good health. Sleep is the time when the brain's activity is at a lower level, and during this time, the accumulated toxins are cleared from the brain. One such accumulated toxin is amyloid-beta, which is linked to Alzheimer's disease. Sleep helps store daily memories and improves focus and decision-making. Apart from ensuring cognitive health, sleep also improves physical and metabolic health, since adequate rest lowers blood pressure, regulates stress hormones like cortisol, and also reduces inflammation.

Charlotte Brontë rightly remarked, "A ruffled mind makes a restless pillow."

In fact, chronic sleep deprivation can adversely impact the quality of life and, in the long run, contribute to adverse health consequences. In a Brazilian study,<sup>1</sup> among 1,650 randomly selected medical students, it was found that daytime sleepiness was observed in 46.5% of the students, significantly more among females. Students who had higher daytime sleepiness scores had poorer quality-of-life scores in all aspects examined (physical health, psychological health, social relationships, and environment). Moreover, higher daytime sleepiness scores were associated with lower perception of the educational environment and greater anxiety. Most students were having fewer hours of sleep on weekdays and appeared to compensate for their sleep during the weekends.

Chronic sleep deprivation is also linked to an increased risk of developing chronic noncommunicable diseases, namely, type 2 diabetes mellitus, obesity, and cardiovascular diseases. Besides, chronic sleep deprivation can also result in suppressed immunity. The

effect on mental health is paramount because of sleep deprivation. Unsettled sleep often results in irritability at work and hampers cordial interpersonal relations, apart from poor performance at the workplace.

The revered Tibetan religious leader, the Dalai Lama, had once said, "Sleep is the best meditation." Chronic sleep deprivation can also result in impaired emotional regulation, which can trigger or exacerbate conditions like anxiety and depression. It is also a well-known fact that psychiatric morbidities alter sleep patterns, reflecting that it is an intricate bidirectional relationship. The aforementioned health effects are bound to affect the quality of life.

The American Academy of Sleep Medicine (AASM) and Sleep Research Society (SRS) developed a consensus recommendation in 2015<sup>2</sup> on the amount of sleep needed to promote optimal health in adults. They used a modified RAND Appropriateness Method process.<sup>3</sup> The consensus statement recommended that adults should sleep 7 or more hours per night on a regular basis to promote optimal health. The statement highlighted that <7 hours of sleep per night on a regular basis is associated with adverse health outcomes, namely, weight gain and obesity, diabetes, hypertension, heart disease and stroke, depression, and increased risk of death. It is also reported to be associated with impaired immune function, increased pain, impaired performance, increased errors, and greater risk of accidents. The consensus statement also emphasized that sleeping >9 hours per night on a regular basis may be appropriate for young adults, individuals recovering from sleep debt, and individuals with illnesses. However, the statement expressed uncertainty on whether sleeping >9 hours per night is associated with health risk in other segments of the population.

It is not only the amount of sleep that is important. It is also imperative to have a good quality of sleep, which includes undisturbed sleep with few awakenings. A systematic review examined the association between sleep timing, sleep consistency, and health

outcomes.<sup>4</sup> The review indicated that later sleep timing and greater sleep variability were both associated with adverse health outcomes. Social jetlag was also found to be associated with adverse health outcomes. The systematic review designated eight health outcomes as critical or primary outcomes, namely, mortality, cardiovascular disease, type 2 diabetes, mental health (depression, anxiety, psychological distress), brain health (neurodegenerative diseases), cognitive function, falls, and accidents/injuries. Six secondary health outcomes were labeled as important and included adiposity, biomarkers of cardiometabolic risk, bone health, health-related quality of life, work productivity, and physical activity and sedentary behavior. The review emphasized that weekend catch-up sleep was associated with better health outcomes. The quality of evidence (on the basis of the studies included in the systematic review) varied from very low to moderate. The systematic review concluded that earlier sleep timing and regularity in sleep patterns with consistent bedtimes and wake-up times are favorably associated with good health.

It is also imperative to understand the concept of sleep hygiene,<sup>5</sup> which is intricately associated with the quality of sleep. Although there is no universally accepted definition of sleep hygiene or its components, it encompasses three factors, namely, behavioral factors, environmental factors, and an aspect of control. The most commonly considered components of sleep hygiene in various studies include caffeine, alcohol, exercise, sleep timing, light, napping, smoking, noise, temperature, wind-down routine, stress, and stimulus control. All these factors, and perhaps some others too, not only help improve sleep quality but also improve sleep duration, and hence, sleep hygiene is an intricate factor in contributing to good sleep.

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**How to cite this article:** Prakash A, Pangtey GS, Aggarwal R. Sleep, Quality of Life, and the Intricate Relationship with Good Health. *J Assoc Physicians India* 2026;74(9):11–12.

The Centers for Disease Control and Prevention (CDC) emphasizes how to improve sleep quality.<sup>6</sup> It advises going to bed and getting up at the same time every day. Keeping the bedroom quiet and relaxing, with a cool temperature, is also advised. It advises turning off electronic devices at least 30 minutes before bedtime. It advises against having large meals and alcohol before bedtime and against having caffeine in the afternoon or evening. Exercising regularly and maintaining a healthy diet are other recommendations to follow.

The American Heart Association in 2010 had talked about the concept of cardiovascular health (CVH). The initial definition of CVH was based on seven health behaviors and health factors, which, if they remain optimal, were associated with greater cardiovascular disease-free survival and total longevity and

higher quality of life. In 2022, the Presidential Advisory added the eighth component as sleep health.<sup>7</sup> The components of Life's Essential Eight include diet, physical activity, nicotine exposure, sleep health, body mass index, blood lipids, blood glucose, and blood pressure. This is a real impetus on the value allocated to sleep, not only for cardiovascular diseases but for other chronic diseases in the times to come. Sleep remains a critical pillar of health, and disturbances in sleep can adversely impact quality of life and have a bearing on several noncommunicable diseases.

## REFERENCES

1. Perotta B, Arantes-Costa FM, Enns SC, et al. Sleepiness, sleep deprivation, quality of life, mental symptoms and perception of academic environment in medical students. *BMC Med Educ* 2021;21:111.
2. Watson NF, Badr MS, Belenky G, et al. Recommended amount of sleep for a healthy adult: a joint consensus statement of the American Academy of Sleep Medicine and Sleep Research Society. *J Clin Sleep Med* 2015;11(6):591–592.
3. Watson NF, Badr MS, Belenky G, et al. Joint consensus statement of the American Academy of Sleep Medicine and Sleep Research Society on the recommended amount of sleep for a healthy adult: methodology and discussion. *J Clin Sleep Med* 2015;11(8):931–952.
4. Chaput J-P, Featherstone R, Ross R, et al. Sleep timing, sleep consistency, and health in adults: a systematic review. *Appl Physiol Nutr Metab* 2020;45:S232–S247.
5. De Pasquale C, El Kazzi M, Sutherland K, et al. Sleep hygiene- what do we mean? A bibliographic review. *Sleep Med Rev* 2024;75:101930.
6. About Sleep. CDC (US). Available from: <https://www.cdc.gov/sleep/about>. Accessed on July 25, 2026. Last updated on May 15, 2024.
7. Lloyd-Jones DM, Allen NB, Anderson CAM, et al. Life's essential 8: updating and enhancing the American Heart Association's construct of cardiovascular health: a presidential advisory from the American Heart Association. *Circulation* 2022;146:e18–e43.