



innerjoy

# meditation & **Sleep**



Whitepaper Series No: 3



In the light of scientific studies, in the human difficulties of the modern age, the positive effects of meditation

Sleep is one of the most basic human needs, just like food, drink, and shelter. It is quite important for our physical and mental health and well-being. In fact, it is so important that we spend about **one-third** of our life in sleep<sup>1</sup>.



Neurological-based research shows that during sleep, our body tries to meet its physical and mental needs by releasing some hormones like **melatonin**. It also repairs damaged cells, stores the energy necessary for the body, and consolidates the learned information at the same time. Therefore, along with our physical health, sleep is very important for many brain functions as well, such as **memory, learning, and focus**.

According to the American National Sleep Foundation, while **7-9 hours** sleep range is ideal for adults, children and adolescents need more sleep<sup>3</sup>. However, many of us feel the lack of adequate and quality sleep. According to the current data published by this foundation,

- **10% to 30%** of adults suffer from chronic insomnia <sup>4</sup>.
- **25%** of young children have trouble sleeping or feel excessively sleepy during the day<sup>5</sup>.
- Around the world, **62%** of adults say they don't sleep well enough<sup>6</sup>.



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## Stress and Sleep Hygiene affect our sleep quality.

Lack of sleep, which is one of the sleep problems we frequently encounter today, can be caused by physical reasons as well as **stress, our lifestyle, and sleep hygiene**.

For example, before sleep, when many thoughts causing you to experience stress during the day are stuck in your head and **you can't let go of them**, you may have trouble falling asleep. When we experience stress, the hormones **adrenalin** and **cortisol** secreted in the body cause our heartbeat to accelerate. This acceleration of the heartbeat and the alertness of our body during stress may prevent us from unwinding before sleep.

**Sleep hygiene** includes activities that we try to create ideal conditions for quality sleep during the day and before going to sleep. In other words, many things are included in our sleep hygiene, from adjusting the conditions of our sleeping environment to our pre-sleep habits. Having good sleep hygiene can prevent us from having sleep problems. For this, you can create a healthy sleep schedule for yourself, pay attention to the use of technological devices before sleep, and try to improve the conditions (light, sound, temperature) of the environment you sleep in<sup>7</sup>.

## Circadian Rhythm

The Circadian Rhythm, which can also be called the biological clock of our body, is the cycle that includes all the physical, mental, and behavioral changes observed in our body within 24 hours.



Metabolic regulations such as hormone release, eating habits, and body temperature in our body are all affected by this rhythm<sup>8</sup>.

The most important and best-known circadian rhythm is the **sleep-wake cycle**. It is very important for our body that this cycle is in a certain order. The environment we live in (especially light), our daily routine, the place technology has acquired in our lives are the main factors affecting this rhythm. Changing or disrupting this rhythm may cause us to experience sleep problems.

In a study conducted by **Harvard University**, it is stated that the use of technological devices that emit light before sleep disrupts the circadian rhythm and prolongs the transition to sleep<sup>9</sup>.

## What are the consequences of lack of sleep?<sup>10</sup>:

Lack of sleep, which has become a social problem today, brings with it many problems. While the constant interruption of sleep and not getting enough sleep cause us to feel tired throughout the day,

- High blood pressure
- Weight gain and obesity
- Decreased concentration and attention
- High cortisol level
- High risk of heart disease
- Diabetes
- Depression



are such problems sleep deprivation is also associated with.

## Discover the regulatory role of meditation on sleep!

One of the biggest obstacles to a comfortable sleep is **stress**. Although it may seem very difficult to get rid of the stress and anxious thoughts that appear when your head hits the pillow, you can avoid stressful thoughts by meditating before sleep.



As a result of studies, it is known that regular meditation reduces stress<sup>11</sup>. By meditating before sleep, you can increase your awareness and reduce the negative effects of stress and anxiety on sleep.

### **Meditation causes physiological changes in our body.**

Focusing on our breath during meditation **makes our heart rate slow down**<sup>12</sup>. Thus, our parasympathetic nervous system (responsible for rest and digestion) gets activated and **causes us to breathe slower**. Slowing of the heartbeat and slow breathing are actually the changes observed in the body during sleep. By experiencing these changes observed during sleep with meditation, you can facilitate the transition to sleep.

**In addition, it is known that the hormone melatonin, which has a very important role in sleep, increases with meditation practices**<sup>13</sup>.

In another study, it was found that the deep sleep and REM sleep stages of meditating participants were more advanced than those who did not meditate, and this effect was preserved as age increased<sup>14</sup>.

So, when we cannot fall asleep or stay asleep, meditating can help us sleep comfortably by causing the same effects on our body as we experience during sleep.

A recent study shows that while the sleep quality of people who practice mindfulness **for 8 weeks** improves, a significant decrease is observed in their fatigue and daytime sleepiness<sup>15</sup>.

Also, mobile mindfulness applications are known to reduce fatigue and daytime sleepiness and improve sleep quality in people with sleep disorders<sup>16</sup>.

**With Innerjoy, you can easily solve your sleep problems by following a healthy sleep schedule.**



Before sleep, or when your sleep is interrupted, with **Innerjoy** you can ease your transition to sleep by practicing meditations for your needs, and overcome the problems you experience. Along with this, you can develop good sleep hygiene by following the practices of a healthy sleep program for 10 days.

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