

# Stages of Sleep

## Stage 1 : drowsy

The first 5-10 mins of the sleep cycle; the transition between wakefulness & sleep

## Stage 2 : light sleep

This stage of sleep lasts about 20 mins; your body temperature drops & your heart rate slows, your brain produces 'sleep spindle' (rhythmic brain waves)

## Stage 3 : deep sleep

This VERY DEEP SLEEP lasts roughly 30 mins; your brain begins producing 'delta waves', deeper & slower brain waves

## Stage 4 : Rapid Eye Movement (REM) sleep

Dreaming occurs during this stage of sleep; there is increased brain activity, muscles are more relaxed while the brain is more active



Sleep is not uniform. Instead, over the course of the night, your total sleep is made up of sleep **cycles**, which is composed of stages. In a typical night, a person goes through four to six sleep **cycles**.

**Stage 1** is essentially the “dozing off” stage, and it normally lasts just 1-5 minutes; the body hasn’t fully relaxed, though the body and brain activities start to slow. It’s easy to wake someone up during this sleep **stage**, but if a person isn’t disturbed, they can move quickly into **stage 2**.

**Stage 2**, during this **stage** the body enters a more subdued state including a drop in temperature, relaxed muscles, and slowed breathing and heart rate. On the whole, brain activity slows, but there are short bursts of activity that actually help resist being woken up by external stimuli. It can last for 10-25 minutes during the first **cycle** and can become longer during the night.

**Stage 3**, also known as deep sleep, it is harder to wake someone up in this **stage**. The brain activity patterns are known as delta waves. Muscle tone, pulse, and breathing rate decrease. Experts believe this stage is critical to restorative sleep, allowing for bodily recovery. It aids in bolstering the immune system, as well as contributing to insightful thinking, creativity, and memory. During the early sleep **cycles**, **stage 3** commonly last for 20-40 minutes, however this gets shorter, and more time is spent in REM sleep as the night progresses.

**Stage 4**, REM sleep; during this **stage** brain activity picks up, nearing levels seen when you’re awake. At the same time, the body experiences atonia, which is a temporary paralysis of the muscles, with two exceptions: the eyes and the muscles that control breathing. REM sleep is believed to be essential to cognitive functions like memory, learning, and creativity. REM sleep is known for the most vivid dreams, which is explained by the significant uptick in brain activity. In total, REM **stages** make up around 25% of sleep.

Information acquired from the Sleep Foundation:

<https://www.sleepfoundation.org/how-sleep-works/stages-of-sleep>