

What is Biphasic Sleep and How Does it Work?

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SHORT COMMUNICATION

Biphasic sleep is defined as a sleep pattern in which a person sleeps in two chunks, or phases, each day [1]. Biphasic sleep may be more prevalent than you believe, despite the fact that many people sleep for seven or eight hours straight each night.

Biphasic sleeping is used by people from all walks of life. People who prefer siestas, for example, are classified as biphasic sleepers. To increase their productivity, some people follow a biphasic sleep regimen. Many creatures, including birds, insects, and mammals, are biphasic sleepers [2]. Learn more about biphasic sleep and how it affects those who sleep.

WHAT IS BIPHASIC SLEEP, AND HOW CAN IT HELP YOU?

Biphasic sleep is a sleep pattern in which a person's sleep is divided into two distinct periods during the day. They might sleep a little longer at night and then nap during the day. They could also divide their evening sleep into two parts. Segmented or bimodal sleep is another name for biphasic sleep.

BIPHASIC SLEEP VS. MONOPHASIC SLEEP

Biphasic sleep differs from monophasic sleep, which describes the majority of people's sleeping patterns. Monophasic sleep occurs when a person gets all of their sleep in one sitting, usually at night.

Monophasic sleep, according to researchers, became the prevailing sleep pattern throughout the industrial era, when artificial illumination made it possible for individuals to stay up past sunset. Previously, many people from various countries and civilizations had a biphasic sleep pattern. They went to bed about 9 p.m. or 10 p.m., slept for a few hours, and then awoke around 12 a.m. They would then stay up for a few hours to eat, take care of their children, or add wood to the fire. They would fall asleep again later that night for their second sleep phase.

Humans adopted a monophasic sleep schedule as artificial illumination became more popular. Since then, we've thought of ourselves as the only animals who sleep in a single stretch at night, but new evidence suggests that we may not be monophasic sleepers after all. A group of healthy volunteers was placed in a setting with light for 10 hours and complete darkness for 14 hours in a study conducted in the 1990s. This environment has significantly less light than our present 16-hour days. Participants slept for 7.7 hours per night at the start of the study. They did, however, naturally adapt to a biphasic sleep schedule during the course of the study. They slept about 11 hours and woke up for one to three hours in the middle of the night on this schedule.

Our present monophasic sleeping patterns may have drawbacks. Increased exposure to artificial light [3], especially at night], can lower melatonin levels and disrupt sleep. Furthermore, some persons have biphasic or polyphasic sleep patterns in their natural sleep patterns.

BIPHASIC SLEEP VS. POLYPHASIC SLEEP

Polyphasic sleepers sleep in various chunks during the day, whereas biphasic sleepers sleep twice per day. A sleep schedule with three or more sleep phases each day is known as polyphasic sleep, sometimes known as segmented sleep. Polyphasic sleepers include infants, who sleep at different periods throughout the day.

When a person is not sleeping this way on purpose in adulthood, polyphasic sleep can be an indication of a sleep disorder or a neurological disease like Alzheimer's [4]. Irregular Sleep Wake Rhythm Disorder, for example, causes people to have disrupted circadian rhythms, causing them to fall asleep and wake up at odd times throughout the day.

Some people choose a polyphasic sleep schedule on purpose in order to be more productive. However, for most people, adopting a polyphasic sleep pattern — especially one that cuts total sleep time below the suggested minimum — leads to sleep deprivation and the poor physical and mental health consequences that come with it [5].

BIPHASIC SLEEP'S ADVANTAGES

The original biphasic sleep schedule, which divided nighttime sleep into two portions with a waking hour around midnight, was popular all around the world. Even in countries near the equator, where individuals' circadian rhythms are unaffected by shifting seasons, this biphasic sleep cycle was the norm. Researchers

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discovered electroencephalographic (EEG) evidence that suggested the midnight waking hour in humans could be pre-programmed in one case study [6].

Furthermore, napping in the middle of the day has been associated to increased cognitive performance [7]. Shorter naps of 15 minutes or less have been proven to alleviate drowsiness and boost cognition nearly instantly, lasting up to three hours later. Longer naps of more than 30 minutes generate longer-term cognitive benefits, but the person must first go through a period of sleep inertia, which is the grogginess you may feel after waking up.

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