



## Importance of Nidra

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### ABSTRACT

*Ayurveda*; an eternal system of medicine, is known for its multidimensional approach towards mankind. Utility of this science starts from fertilization till death. Health of a person means healthy physical body and mind together. *Ayurveda* helps in keeping balance, harmony and equilibrium in all physiological activities of body and mind. Sleep is important because it affects our mental, physical, and emotional well-being. Sleep is defined as a state of unconsciousness from which a person can be aroused. In this state, the brain is relatively more responsive to internal stimuli than external stimuli. Sleep is essential for normal, healthy functioning of the human body. When the mind gets exhausted or become inactive and the sensory and motor organs become inactive then the individual gets sleep. During sleep different kinds of dreams will be seen. Sleep was born at the time of commencement of the creation of the universe only, out of *tamas*. Sleep is another form of *tamas* and manifests due to the predominancy of *tamas* generally in nights.

### INTRODUCTION

“Each night, when I go to sleep, I die. And the next morning, when I wake up, I am reborn.” Mahatma Gandhi

Āyurveda is an eternal science. Nidrā (sleep) being an integral part of our life plays an important role in promotion of health and prevention of diseases. Caraka in 1000 B.C. categorically mentioned significance of Nidra in his samhitā. This old concept requires to be re-evaluated. As literary research deals with assortment, classification, compilation, critical study and presentation in revised form; we have made an attempt to compile dispersed references regarding the concept of “Nidrā”. The word *Nidra* is obtained by adding prefix to the *dhatu* दा. दा *dhatu* means to sleep. Hence the term *Nidra* means back to sleep, into sleep, down to sleep. <sup>1</sup>

The three supports of life are intake of food, sleep and observance of *brahmacharya*. Being supported by these three well regulated factors of life, the body is endowed with strength, complexion and growth, and continues until the full span of life, provided a person does not indulge in such regimen as are detrimental to health. <sup>2</sup>

These supports are designated as ‘*Upastambhas*’ which literally mean sub-posts. A house is mainly supported by posts but there are certain sub-posts which add to the supporting strength of such posts. Similarly, body is mainly supported by the acts performed in the previous life which determine the present life span. But such acts are further supported by regimen like intake of food, sleep and *brahmacharya*. So they are known as *Upastambhas*, i.e. secondary supports of life. <sup>3</sup>

Āyurveda has given a lot of importance to *Nidrā* in our daily life for the maintenance of health. Next to *Āhāra*, the *Nidrā* is the second most important for life. Suśrūta coated that sleep is enjoyment of pleasure by body and sense organs. As *nidra* being chief nourisher of the body, it plays an important role in promotion of health and prevention of diseases. <sup>4</sup>

Sleep was born at the time of commencement of the creation of the universe only, out of *tamas*. Sleep is another form of *tamas* and manifests due to the predominancy of *tamas* generally in nights. *Kapha* will stir up the food substances and which obstructs the internal channels causes unable to perform normal functions of the sense organs due to exhaustion and there by manifests sleep. When the mind gets exhausted or become inactive and the sensory and motor organs become inactive then the individual gets sleep. During sleep different kinds of dreams will be seen.

### Why sleep is so important ????

When the mind (as well as the soul) gets exhausted and the sensory and motor organs become inactive then the individual gets sleep. So when mind dissociates itself from some object, the person also dissociates from it. The sensory and motor organs are not active because of the inaction of individuals.<sup>5</sup>

Here, '*Manas*' denote 'Internal senses' (*Antahkaraṇa*) or self accompanied by *manas*. '*Karmātmānah*' means senses or it may denote worldly souls.<sup>6</sup>

Happiness, misery, nourishment, emaciation, strength, weakness, virility, sterility, knowledge, ignorance, life and death – all these occur depending on the proper or improper sleep. Like the night of destructions, untimely and excessive sleep and prolonged vigil take away both happiness and longevity.

Sleep, if properly enjoyed brings about happiness and longevity in human beings as the real knowledge brings about *Siddhi* (spiritual power) in a *yogi*.

Sleep at the night time makes the balance of the body constituents (*Dhatusamyā*), alertness, good vision, good complexion and fired digestive power (*Bhavamishra*, 2009). Those who take proper sleep in proper time will not suffer from disease, the mind of them will be peaceful, they gain strength and good complexion, good virility.<sup>7</sup>

Bliss & gloom, nourishment & emaciation, power & weakness, virility & sterility, knowledge lack of knowledge, existence & bereavement all these occur depending on the proper or improper sleep. Excessive, improper and sleeplessness leads to misery and finally to death. Proper sleep will make for happiness and long life just as the mind of the sages became clear from the knowledge of the soul.<sup>8</sup>

### Human adult

The optimal amount of sleep is not a meaningful concept unless the timing of that sleep is seen in relation to an individual's [circadian rhythms](#). A person's major sleep episode is relatively inefficient and inadequate when it occurs at the "wrong" time of day; one should be asleep at least six hours before the lowest body temperature. The timing is correct when the following two circadian markers occur after the middle of the sleep episode and before awakening maximum concentration of the hormone melatonin, and minimum core body temperature.

Human sleep needs vary by age and amongst individuals, and sleep is considered to be adequate when there is no daytime sleepiness or dysfunction. Moreover, self-reported sleep duration is only moderately correlated with actual sleep time as measured by [actigraphy](#) and those affected with [sleep state misperception](#) may typically report having slept only four hours despite having slept a full eight hours. A [University of California, San Diego](#) psychiatry study of more than one million adults found that people who live the longest self-report sleeping for six to seven hours each night. Another study of sleep duration and mortality risk in women showed similar results other studies show that "sleeping more than 7 to 8 hours per day has been consistently associated with increased mortality," though this study suggests the cause is probably other factors such as depression and socioeconomic status, which would correlate statistically.<sup>9</sup>

## Children

By the time infants reach the age of two, their brain size has reached 90 percent of an adult-sized brain; a majority of this brain growth has occurred during the period of life with the highest rate of sleep. The hours that children spend asleep influence their ability to perform on cognitive tasks. Children who sleep through the night and have few night waking episodes have higher cognitive attainments and easier temperaments than other children.

Sleep also influences language development. To test this, researchers taught infants a faux language and observed their recollection of the rules for Infants who slept within four hours of learning the language could remember the language rules better, while infants who stayed awake longer did not recall those rules as well. There is also a relationship between infants' vocabulary and sleeping: infants who sleep longer at night at 12 months have better vocabularies at 26 months.

Children need many hours of sleep per day in order to develop and function properly: up to 18 hours for [newborn](#) babies, with a declining rate as a child ages. Early in 2015, after a two-year study, the [National Sleep Foundation](#) in the US announced newly revised recommendations as shown in the table below.

Newborns need up to 18 hours of sleep per day for first couple of month, the requirement goes on decreasing with increasing age. Infants and toddlers (i.e. till 3 years) need around 14 hours of sleep per day.<sup>10</sup>

## Age and Sleep needed in hours

Newborns (0-2 months)	12-18 hours
Infants (3-11 months)	14-15 hours
Toddlers (1-3 years)	12-14 hours
Preschoolers (3-5 years)	11-13 hours
School age children (5-10 years)	10-11 hours
Teens (10-17 years)	8.5- 9.25 hours
Adults	7-9 hours

## TYPES

According to Caraka Samhitā, Sleep is of the following types:<sup>11</sup>

1. Caused by *tamas*
2. Caused by (vitiating) *kapha*
3. Caused by mental exertion
4. *Āgantuki* or indicative of bad prognosis leading to imminent death
5. Caused as a complication of other diseases like *Samnipāta jvara*
6. Caused by the very nature of the night (physiological sleep).

Mental and physical exertion brings about inactivity of the mind resulting in the dissociation of the mind and the sense organs from their objects which is responsible for sleep. But if there is excessive exertion, this may cause vitiation of *vāta* leading to sleeplessness. Thus, even though, exertion is a causative factor for sleep, excessive exertion is responsible for the aggravation of *vāta* which causes sleeplessness. By nature, the night serves as a causative factor for sleep. Sleep during the day time is caused by *tamas*.<sup>12</sup>

While *Aṣṭāṅga Saṅgraha* mentions that Sleep is of the following seven types:<sup>13</sup>

1. *Kāla svabhāva*- caused by the very nature of night (physiological).
2. *Āmayaja prabhāva*- caused as a complication of other diseases like *sannipāta jvara*.
3. *Citta kheda prabhāva*- caused by mental exertion.
4. *Deha kheda prabhāva*- caused by physical exertion.
5. *Kapha prabhāva*- caused by vitiated *kapha*.

6. *Āgantuka*- indicative of bad prognosis leading to imminent death.
7. *Tamo prabhāva*- caused by *tamas*.

## IMPORTANCE

Happiness, misery, nourishment, emaciation, strength, weakness, virility, sterility, knowledge, ignorance, life and death – all these occur depending on the proper or improper sleep. Like the night of destructions, untimely and excessive sleep and prolonged vigil take away both happiness and longevity.<sup>14</sup>

Sleep, if properly enjoyed brings about happiness and longevity in human beings as the real knowledge brings about Siddhi (spiritual power) in a yogi.

During the summer in the day time one should sleep in an air cooled apartment. In the night, after having besmeared the body with sandal paste, one should sleep on the open airy roof of the house which is cooled by the rays of the moon.<sup>15</sup>

Sleep used in the management of emaciation.<sup>16</sup>

## Indications of day sleep

Sleeping during the day time in all seasons is prescribed for those who are exhausted by singing, study, alcoholic drinks, sexual acts, elimination therapy, carrying heavy weight, walking long distance; those suffering from phthisis, wasting, thirst, diarrhoea, colic pain, dyspnoea, hiccup, insanity, those who are too old, too young, weak and emaciated; those injured by fall and assault, those exhausted by journey by a vehicle, vigil, anger, grief and fear and those who are accustomed to day sleep. By this the equilibrium of dhātus and strength are maintained and the *kapha* nourishes the organs and ensures longevity. In summer season nights become shorter and *vāta* gets aggravated in the body due to *Ādāna kāla*. Therefore, during this season, day time sleep is prescribed for all.<sup>17</sup>

## Contra-indications of day sleep<sup>18</sup>

Sleeping during the day time in the seasons other than summer is not advisable as it causes vitiation of *kapha* and *pitta*. Persons with excessive fat, those who are addicted to taking unctuous (flattering, oily, groveling, creepy) substance, those with *ślaiṣmika* constitution, those suffering from diseases due to the vitiation of *kapha* and those suffering from *dūṣṭviṣa* (artificial poisoning) should never sleep during day time. If one violates the prescription regarding day sleep, he should subject himself to *halimaka* (serious type of jaundice), headache, timidness, heaviness of the body, malaise, loss of digestive power, *hṛdayopalepa* (a feeling as if phlegm adhered to the heart), oedema, anorexia, nausea, rhinitis, hemicrania, urticaria, eruption, abscess, pruritis, drowsiness, coughing, diseases of the throat, impairment of the memory and intelligence, obstruction of the circulating channels of the body, fever, weakness of sensory and motor organs and enhancement of the toxic effects of artificial poisons. So one should keep in view, merits and demerits of sleep in various seasons and situations, in order that it may bring happiness to him.

## Effect of night awakening

Vigil during night causes dryness in the body; sleep during day time causes unctuousness and dozing in sitting posture does neither cause dryness nor unctuousness.<sup>19</sup>

Vigil during night and day-sleep both are responsible for causing *Kāsa vyādhi*.<sup>20</sup>

## Sleeping pattern:

After taking the dinner, one should walk for hundred steps before going to sleep, then one should lie down in recumbent posture up bed taking 8 times breath and should change the posture to

right lateral till taking 16 times breath and thereafter to left lateral taking 32 times breath and then can sleep in any posture. But it is always advisable to sleep in left lateral position because the *Agni* (digestive fire) lies in the left side of the body above the *Nabhi* (umbilicus), which is responsible for the digestion (Brahmashankar Shashtri, 2005)<sup>21</sup>

#### **Time suitable to wake**<sup>21</sup>:

Though the duration of sleep is not directly mentioned in the *Ayurvedic* classics but indirectly it can be understood by the verse given by *Acharya Vagbhatai*.e. one should wake up in the *Brahmamuhurta* i.e. 48minutes before the Sunrise following the proper digestion of food taken at night..

#### **Suitable place to Sleep:**<sup>21</sup>

In *Yogaratnakara*, effect of different kinds of beds used for sleeping on health has been described in details as follows -

- Sleeping on a cot is *Tridosha nashaka* and is conducive to good health.
- Sleeping on the bed on ground neutralizes *Vata* and *Kapha*.
- Sleeping on the ground results in obesity, increases virility, increases *Vata* and dryness in the body and neutralizes *Rakta-pitta*.
- Sleeping on a plank of wood increases *Vata*.
- Sleeping on a comfortable bed in general increases happiness, sleep, sexual desire and virility and helps in getting rid of excess of *Vata* and exhaustion (Brahmashankar Shashtri, 1999).

#### **Pattern to Sleep:**<sup>21</sup>

After taking the dinner, one should walk for hundred steps before going to sleep, then one should lie down in recumbent posture up bed taking 8 times breath and should change the posture to right lateral till taking 16 times breath and thereafter to left lateral taking 32 times breath and then can sleep in any posture.

But it is always advisable to sleep in left lateral position because the *Agni* (digestive fire) lies in the left side of the body above the *Nabhi* (umbilicus), which is responsible for the digestion (Brahmashankar Shashtri, 2005)

#### **Sleep and Nutrition**<sup>22</sup>

Dietary and nutritional choices affect sleep duration and quality. Research is being conducted in an attempt to discover what kinds of nutritional choices result in better sleep quality.

A study in the *Western Journal of Nursing Research* in 2011-compared how sleep quality was affected by four different diets: a high-protein diet, a high-fat diet, a high-carbohydrate diet, and a control diet. Results indicated that the diets high in protein resulted in fewer wakeful episodes during night-time sleep. The high carbohydrate diet was linked to much shorter periods of quiescent or restful sleep. These results suggest that ingested nutrients do play a role in determining sleep quality. Another investigation published in *Nutrition Research* in 2012-examined the effects of various combinations of dietary choices in regard to sleep. Although it is difficult to determine one perfect diet for sleep enhancement, this study indicated that a variety of micro and macro nutrients are needed to maintain levels of healthful and restful sleep. A varied diet containing fresh fruits and vegetables, low-fat proteins, and whole grains can be the best nutritional option for individuals seeking to improve the quality of their sleep.



## Physiology of sleep<sup>23</sup>

In mammals and birds, sleep is divided into two broad types:

[eye movement](#) (REM sleep) and [non-rapid eye movement](#) (NREM or non-REM sleep). Each type has a distinct set of physiological and neurological features associated with it. REM sleep is associated with dreaming, desynchronized and faster brain waves, loss of muscle tone, and suspension of [homeostasis](#). REM and non-REM sleep are so different that physiologists classify them as distinct behavioral states. In this view, REM, non-REM, and waking represent the three major modes of consciousness, neural activity, and physiological regulation. According to the Hobson & McCarley [activation-synthesis hypothesis](#), proposed in 1975–1977, the alternation between REM and non-REM can be explained in terms of cycling, reciprocally influential neurotransmitter systems.

Especially during non-REM sleep, the brain uses significantly less energy during sleep than it does in waking. In areas with reduced activity, the brain restores its supply of [adenosine triphosphate](#) (ATP), the molecule used for short-term storage and transport of energy. (Since in quiet waking the brain is responsible for 20% of the body's energy use, this reduction has an independently noticeable impact on overall energy consumption.)<sup>[8]</sup> During slow-wave sleep, humans secrete bursts of [growth hormone](#). All sleep, even during the day, is associated with secretion of [prolactin](#)

Sleep increases an organism's sensory threshold. In other words, a sleeping creature perceives fewer stimuli. However, it can generally still respond to loud noises and other salient sensory events. Key physiological indicators in sleep include EEG of [brain waves](#), [electrooculography](#) (EOG) of eye movements, and [electromyography](#) (EMG) of [skeletal muscle](#) activity. Simultaneous collection of these measurements is called [polysomnography](#) and can be performed in a specialized sleep laboratory..<sup>23</sup>

## Some of Common disorders due to disturbed sleep are...<sup>24</sup>

Bruxism biting of teeth, Hypopnea syndrome, Insomnia, Restless legs syndrome (RLS), an irresistible urge to move legs, Shift work sleep disorder (SWSD), a situational circadian rhythm sleep disorder, Sleep apnea.

## CONCLUSION

All is well if someone sleeps well.

Thus it is observed that the person have sufficient sleep according to the age, climatic, physical etc factor can attain positive energy and a enthusiasm to perform work. And ultimately lead to a better and healthy life. Sleep is a chief nourisher at life's feast. It occurs due to increased *Tamoguna*. During sleep anabolism is active and catabolism relatively passive thus prevents body organs from damaged and repairs damage at cellular level. Thus sleep is essential for survival.

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