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Scientific Review On Health Benefits Of Sleep Positions W.S.R To Left Side- *Ayurvedic* Perspective

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ABSTRACT:

The Secrete of Health Maintenance and its Promotion have been old to mankind which is taught by Ayurveda. The Science of Life has always given prime importance to Health Maintenance. Sleep is a Physiological interruption of afferent pathways at a central point, humans spend almost a third of their lifetime in sleeping and number of vital physiological changes occur during sleep. Ayurveda considering sleep as one among *Trayopasthamba* (Three sub pillars of life) and defines as due to *klanta and Klama* (Quiescent stage) of mind-body along with divorce of sense objects from the senses. Although the influence of sleep on health is well documented, but information about the body postures and its physiological importance is scare. The advice of left side sleeping position after food intake is recommended by *Acharya Sushruta*. Hence this paper aims to analyze different physiological changes occur during sleep which impart health by correcting if any metabolic dysfunction existing with special emphasize on left side sleep posture.

Keywords: Cerebral cortex, , Glymphatic pathway, *Hrudaya*, Left side sleep, Parasympathetic activity , *Sadhaka pitta*, , Tama.

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INTRODUCTION:

The approach of fundamental theorems of Ayurveda to achieve health is highly comprehensive and not merely by individual component. According to Ayurveda health is attained, who indulges daily Healthy Foods and activities, Discriminates the Good and Bad of everything & then act wisely, who not attached too much to the objects of senses, who develops the habit of charity, treats all as equal, of truthfulness, of pardoning and keeping company of good persons only, becomes free from all diseases.¹

“Sleep” being one such *vihara* & inevitable principle of *Dinacharya*, which influences greatly on both Health & Disease. Happiness, Misery, Nourishment, Emaciation, Strength, Weakness, Virility, Sterility, Knowledge, Ignorance, Life and Death respectively occur depending on

Proper or Improper sleep.² As proper *Aahar* (Food) is required for maintenance of health similarly *Nidra* (Sleep) is required for *sukha* and *aarogya* and *Stholya* (Obesity) and *karshya* (Emaciation) depends on *Nidra*.³ In Ayurveda, the *Nidra* (sleep) is outcome of *Ratriswabhava Prabhava* & is called as *Bhutadhatri* since it nurses all living beings.⁴

Body postures and movements during sleep have been reported to be associated with sleep quality and various health outcomes.⁵ For example, poor sleepers spend more time on their back & patients with heart failure tend to favor sleeping on their side.⁶ Although the influence of sleep on health and well-being is well documented,⁶ information about the distribution of body postures and movements during sleep is scarce.⁷ A

laboratory study by Lorrain et al on elderly subjects (four men, four women, aged 65–75 years) showed that the side position was the preferred sleep posture (77% of sleeping time) followed by the back position (19%); only 2% of the sleeping time was spent in the front position.⁸

A continuous shift in preference toward the side position is also supported by a study that included age-groups from 3–5 years to 65–85 years. The main finding was a progressive preference for sleep in the side position with increasing age.⁹ The overall preference for the side position across adulthood is supported by a study of 600 women (aged 20–70 years) using a portable poly sonographic recording system to capture sleep position in a free-living setting.⁸ The results showed that about 50% of sleep time was spent in the side position, 41% on the back, and only 9% in the front position.¹⁰

AIMS & OBJECTIVES:

1. To establish relationship between Sleep position with health outcomes.
2. To review & analyze the basis of Science behind Left side sleeping position which is mentioned by

Acharya *Sushruta* with relevance to its healthy benefits.

Scientific basis of Sleep concept in Ayurveda:

Before we search for scientific rationality of sleep in modern light, let us re-search the definition, causes of sleep mentioned in Ayurveda. *Charaka* has ascribed the cause of sleep as due to *Klanta & Klama* of the mind-body (Including senses), especially the divorce of the sense-objects from the senses.¹¹ But *Sushruta's* observation was that, sleep overcomes a man whenever *Hridaya* becomes enveloped by the effects of *tamas*.¹² *Dalhana* comments on this as” *Sadhaka pitta* dispels the *tamas & kapha* that envelopes *Hridaya* & thus enables the mind to perceive things clearly.¹³ These observations need a study with recent contributions to the phenomenon of sleep.

Sleep represents “ a physiological interruption of afferent pathways at a central point.” The prevalent notion is that sleep is the outcome of cerebral ischemia is no longer reliable since during sleep blood flow to the cerebrum is not reduced.¹⁴ Sleep centre is hypothalamus which is also seat of

Sympathetic & Parasympathetic and sleep is the function of Parasympathetic effects. Hypothalamus is considered to contain a waking centre, the inhibition of which is stated to be followed by sleep.

Cortical theory of sleep

Primarily sleep is due to inactivity of cerebral cortex which arises from the reduction in number of afferent impulses, especially from muscles reaching the sensory areas. This reduction of impulses is due to fatigue of the neuromuscular mechanism. Secondly, the exclusion of stimuli from the visual, auditory & cutaneous receptors is also an important factor for inducing sleep.¹⁵

Sleep theory of Ayurveda

Charaka's reference to *Klanta* (fatigue of mind) & *klama* (fatigue of body) and divorce of senses from their objects implicate that the afferent pathways are unable to conduct different kinds of external & internal stimuli due to fatigue. Hence, inertial & quiescent states of afferent pathways are due to envelop of *Hrudaya* by *tamas* & *kapha* and thus interferes the function of *Sadhaka pitta* which actually dispels *tamas* & *kapha* & enables mind to see things clearly. *Sadhaka*

pitta is stimulated by means of anxiety, fear, worry which tend to excite cerebral cortex & prevent sleep & thus *Hridaya in uras* (chest) has obviously little or nothing to do with *Nidra*. The conduct of impulses to mind (in *mastishka*-known as cerebral cortex) is *sadhaka pitta karma by bhela*.¹⁶

DISCUSSION

Concrete relationship between Sleep with health has been established in *Ayurveda* but Acharya *Sushruta* further connects the role of sleep in maintaining health by mentioning its position which shows its importance. *Sushruta* states that, one should sit like king after food intake to overcome kind of exhaustion, then should walk briskly of about 100 steps and then should sleep on his left side.¹⁷

To understand the scientific bases of this left side sleeping position in regulating many physiological functions along with its clinical importance, we need to establish the factors which favor in imparting health benefits by means of this particular position. In *Bhela samhita*, it is clearly mentioned that, the *Prana* & *Vyana vayu* are active along with *ushma* during sleep.¹⁸

Prana vayu being located in head it governs respiration, deglutition, sense organs and

mind (higher intelligence), many cortical areas comes under regulation of *Prana vayu*.

The physiological aspects of *Vyana vayu* functions mentioned in Classics imply the motor system & activities of Reticular Activating & Inhibiting systems. *Nimesha* can also be interpreted as sleep & *Unmesha* as arousal, the activity of RAS (Reticular activating system).¹⁹

Then *Ushma* refers metabolic activity or Biochemical process. Proper sleep stimulates the *agni* & there by improves digestion & metabolism, this activity is highly improvised when a person sleeps in left side position.

Modern View o Left side Position of Sleep

Sleeping on Left side has science backed health benefits & it affects everything from brain to gut. Even modern Research supports this theory which originally stems from Ayurveda. It is interesting to note that even most of the animals also sleep on their left side.

Six Potential Health Benefits of Left Side Position of Sleeping:

1. Bolsters the Lymphatic System:

Sleeping on Left side allows Your Body to filter Lymph fluid & process waste materials from Brain in a better way via lymph nodes. Because Left side of the Body is dominant of lymph nodes. In nutshell it increases the efficiency of Lymphatic system.

2. Improves Digestion:

Lying on Left side allows food waste to easily moves from ascending colon to Descending colon through Ileo-caecal valve due to simple matter of gravity. Further left side sleeping helps the Stomach & Pancreas to hang naturally in their respective position which initiates secretions of concerned Digestive enzymes and there by aids in proper Digestion & absorption.

3. Ideal for pregnant Women :

Plenty of benefits pregnant women can avail while sleeping on her left side. It not only improves Circulation to Fetus, uterus, kidney, but also relieves pressure on back and keeps the uterus away from squeezing the Liver.

4. Reduces the Heartburn;

Gastro Esophageal Reflux Disease (GERD) commonly called as Heartburn is most

frequently found clinical symptom now a days from youngsters to elders. This complaint can be easily prevented by sleeping on left side, as it reduces the Acid-reflux symptoms. Research theorizes that stomach and Gastric juices remain lower than the esophagus while sleeping on left side.

5. Relieves Back pain:

People who suffer from Chronic back pain may get benefit by sleeping on their left side, because it reduces pressure on spine.

6. Boosts Brain Health :

The metabolic waste products in the brain are removed through “Glymphatic pathway” , where CSF(Cerebro spinal Fluid) filters through brain and exchanges With ISF (Interstitial fluid) which is found in all other cells of the body. This transport is most effectively done during left side sleep position compare to other positions of sleep. By this it reduces the risk of Developing Alzheimer’s, Parkinson’s and other neurological Diseases. . Brain waste includes amyloid β (amyloid) and tau proteins, chemicals that negatively affect brain processes if they build up. "It is

interesting that the lateral sleep position is already the most popular in human and most animals -- even in the wild.²⁰

CONCLUSION

Even though maintenance of Health and Manifestation of Diseases depends on multiple factors, but “Sleep” is one such inevitable daily routine which might have potential influence on both health & Disease. 5000 years back ago only Ayurveda has rightly recognized the importance of *Nidra* along with its proper position to sleep. This paper identifies the scientific rationality behind Left side sleeping position theory of *Ayurveda*, so one can avail all these listed health benefits by simply sleeping on their left side.

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REFERENCES

- 1) T. Sreekumar, Astanga hrudaya with English translation & commentary, Harishree hospital, 3rd Edition, Thrissur (2011), Sutrasthana 4/35, Page no-111
- 2) Pandit Kashinath Shastri , Charaka Samhita, Hindi translation , Varanasi(2003),Chaukhambha Sanskrit Sansthan, sutra sthana 21/36, Page no-283.
- 3) Pandit Kashinath Shastri , Charaka Samhita, Hindi translation,Varanasi(2003), Chaukhambha Sanskrit Sansthan, sutra sthana 21/51, Page no-286
- 4) Pandit Kashinath Shastri , Charaka Samhita, Hindi translation , Varanasi(2003),Chaukhambha Sanskrit Sansthan, , sutra sthana,21/59 Page no-287
- 5) De Koninck J, Gagnon P, Lallier S. Sleep positions in the young adult and their relationship with the subjective quality of sleep. *Sleep*. 1983;6(1):52–59.
- 6) Leung RS, Bowman ME, Parker JD, Newton GE, Bradley TD. Avoidance of the left lateral decubitus position during sleep in patients with heart failure: relationship to cardiac size and function. *J Am Coll Cardiol*. 2003;41(2):227–230.
- 7) Irwin MR. Why sleep is important for health: a psycho Neuro-immunology perspective. *Annu Rev Psychol*. 2015;66:143–172.
- 8) (Lorrain D, De Koninck J, Dionne H, Goupil G. Sleep positions and postural shifts in elderly persons. *Percept Mot Skills*. 1986;63(2 Pt 1):352–354.)
- 9) (De Koninck J, Lorrain D, Gagnon P. Sleep positions and position shifts in five age groups: an ontogenetic picture. *Sleep*. 1992;15(2):143–149.)
- 10) Sahlin C, Franklin KA, Stenlund H, Lindberg E. Sleep in women: normal values for sleep stages and position and the effect of age, obesity, sleep apnea, smoking, alcohol and hypertension. *Sleep Med*. 2009;10(9):1025–1030.
- 11) Pandit Kashinath Shastri , Charaka Samhita, Hindi translation , Varanasi(2003), Chaukhambha Sanskrit Sansthan, sutra sthana 21/35, Page no-432.
- 12) Sushruta, Sushruta samhita, Dalhana ,Nibandhasangraha vyakhya, Varanasi(2012) Chaukhambha Sanskrit Sansthan, ,Sharira sthana 4/35, page no-358
- 13) Sushruta, Sushruta samhita, Dalhana ,Nibandhasangraha vyakhya, Varanasi(2012) Chaukhambha Sanskrit Sansthan, ,Sutrasthana 21/10, page no-101

- 14) Raymond D Adams, Principles of Internal Medicine, Harrison Based on “ Sleep & its abnormalities” et al; pp. 248-249
- 15) Best & Taylor, Physiological basis of Medical practice, 1950 edition, pp. 1053-55,
- 16) K H Krishnamurthy, Bhela Samhita, text with English translation, Chaukambha Vishnubharati, Varanasi, Edition 1, 2000, Sharira sthana 4/8, Page no-209
- 17) Sushruta, Sushruta samhita, Dalhana ,Nibandhasangraha vyakhya, Varanasi(2012) Chaukhambha Sanskrit Sansthan, ,Sutrasthana 46/487, page no-249
- 18) K H Krishnamurthy, Bhela Samhita, text with English translation, Chaukambha Vishnubharati, Varanasi, Edition 1, 2000, Sutra sthana 23/6, Page no-445
- 19) T. Sreekumar, Astanga hrudaya with English translation & commentary, Harishreee hospital, 3rd Edition, Thrissur (2011), Sutrasthana 12/6,7, Page no-288
- 20) Douillard, Dr. Jhon. Life spa .<https://lifspa.com>, 2-18(Online), 25 July 2020