Why Good sleep is essential for better body and mind

<u>Anil K. Rajvanshi</u> <u>anilrajvanshi@gmail.com</u>

Why do we sleep has still remained a mystery. We spend one third of our life sleeping. There must be a good reason why nature makes us sleep for this much time. Now slowly but surely scientific investigations are solving this puzzle.

One of the <u>accepted theories</u> so far has been that sleep helps in consolidating and also removing the memories. We perceive the world during the day through our senses and it results in memory formation both shallow and deep. Sleep, it seems, helps in consolidating and removing some of these memories and unclutter the brain.

Another <u>recent but fascinating theory</u> (backed with experiments) has shown that sleep helps in flushing out from brain toxic protein waste and biological debris. These are formed during the regular functioning of the brain during waking hours. It seems that during sleep the relaxation of brain helps in opening up the channels through which the debris flows into the blood streams and is removed from it.

Large <u>number of studies all over the world</u> has shown the beneficial effects of good sleep. Sleep deprivation results in judgment impairment, mental illness like depression, heart problems, obesity and drastic reduction in general well being of an individual. In an extreme case long term sleep deprivation has also resulted in death; though the cause of death was heart failure which could have been triggered by sleep deprivation. In fact the first sign of sickness is fretful sleep.

Scientific studies have also shown that during sleep <u>plaque (beta amyloid) which is</u> <u>responsible for neurodegenerative diseases like Alzheimer's disease and dementia is</u> <u>also flushed out.</u> Thus good sleep is extremely essential for a healthy brain and the body.

The build-up of toxins in the brain due to inadequate sleep also affects the body. Though there is very little understanding of how this happens but a probable cause is the passage of this information by the <u>vagus nerve to different parts of the body</u>. As the brain starts getting affected by the debris build-up the message via vagus nerve to various organs might be to slow them down, resulting in lethargic action of these organs.

Since deep sleep and meditation both enable dissolution of memories, <u>they may have</u> <u>similar characteristics</u> and it is possible that during meditation the flushing of toxins from the brain may also take place. A possible mechanism could be that since meditation results in the relaxation of brain, it may help in opening up the channels for flushing off the chemical debris.

Memory is formed both by producing new neural pathways and certain chemical changes in the brain. Memory removal therefore is affected by changes in both these mechanisms.

In deep meditation (where the focus is on a single thought for a long time, also called *Sanyam* by Sage Patanjali) new neural pathways are formed and the old ones get dissolved. This dissolution may have a chemical signature thereby producing toxic debris which needs to be flushed out.

How can we induce good sleep? Generally when the body is healthy and the person follows a good exercise regime, then this helps to produce deep sleep. Production of deep sleep can also be helped by meditation. Studies world over have shown that long term practice of meditation helps in toning both the mind and body.

A good meditation practice to follow for quickly falling asleep is to close the eyes and focus attention onto the center of forehead. This can be done just before going to sleep and also when one wakes up at night and has difficulty in falling asleep again. Similarly there maybe other techniques to meditate so that sleep results.

<u>HOME</u>

Go back to the book

Syndicated by IANS and published in various newspapers and news lines like <u>Quint</u>, <u>Economic Times</u>, etc.