ADENOSINE
Regulates the circadian rhythm and induces sleep

GABA
Associated with sleep, muscle relaxation, and sedation

MELATONIN
Regulates the circadian rhythm and induces sleep

CHEMICALS ASSOCIATED WITH SLEEP

DIFFERENT SLEEP STAGES
Sleep consists of two basic stages: Rapid eye movement (REM) and Non-REM. The Non-REM stage is further divided into three stages, known as Non-REM-1, Non-REM-2, Non-REM-3. These cycles repeat several times during a night’s sleep

SLEEP CYCLE
Sleep is an essential life function regulated through a complex and sensitive mechanism
FUNCTIONS OF SLEEP

Good sleep prepares us mentally and physically for the next day.

1: PHYSIOLOGICAL & PSYCHOLOGICAL FUNCTION OF SLEEP

Restful sleep during the night recharges, repairs and enhances physical and mental processes that get depleted during the day.

2: COGNITIVE FUNCTION

Disruptions in sleep impair the decision-making ability and reduce long term memory. It also increases attention deficiency.

3: NEUROLOGICAL FUNCTION

Sleep is critical for the brain to generate new neurons, enhance the strength of neural networks and to collect metabolic waste products and proteins which are not required in the brain.

WHAT AFFECTS THE DURATION & QUALITY OF SLEEP?

- Stress
- Life-style factors
- Age
- Technology use

Poor quality sleep affects our health, cognition and neurological function.

Several life-style factors affect the sensitive mechanism of sleep and can impair both the quality and duration of our sleep.
There are 5 research studies that measure the effect of SKY on sleep quality, architecture and duration.

**Study 1: Effect of SKY on sleep quality among 473 Indian adults**

82% Increase in Population with Good Sleep Quality

Largest Improvement in sleep quality was observed among those who practice SKY daily.

**Study 2: Effect of SKY on sleep disturbances among 69 Young Adults**

16.7% Decrease in sleep disturbances was observed immediately after SKY

21.7% Further decrease in sleep disturbances after 3 months of SKY practice

SKY improves sleep quality by inducing restful & restorative sleep and reducing sleep disturbances.
Study 3: Correlation of SKY and sleep quality among 385 SKY Practitioners from Singapore

SKY Practitioners were assessed for sleep quality for three frequencies of SKY practice (occasionally, weekly, daily).

Those who practiced SKY daily had better sleep quality than those who practiced weekly or occasionally.

SKY practice improves sleep quality among adults and as the frequency of practice increases, sleep quality also improves greatly.
Daytime sleepiness is defined as the inability to remain awake during waking hours.

**Study 4: SKY & Day time sleepiness among 105 Adults**

Assessment at baseline, 4 weeks and 8 weeks after SKY practice

SKY practitioners experienced a reduction in daytime sleepiness and improved sleep quality over 8 weeks of SKY practice, when compared to non-SKY practitioners.

**SKY**

- Daytime sleepiness immediately after SKY: 34.7%

**non-SKY**

- Improved sleep Quality after 8 weeks SKY: 31.3%

Sudarshan Kriya Yoga reduces excessive daytime and situational sleepiness.
The most restorative sleep stage, *Slow wave sleep (SWS)* or *Deep Sleep (NREM Stage 3)* is necessary for memory consolidation and day time function.

**Study 5:** Sleep architecture comparison among SKY & non-SKY Practitioners of different age groups

- **SKY Group:**
  - 11.6% SWS constituted of sleep among the middle aged SKY group

- **Control Group:**
  - 3.7% SWS constituted only of sleep among the middle aged control group

A similar deep sleep architecture between the younger and middle-aged SKY practitioners was found which indicates no decline in sleep quality with age among SKY Practitioners.

SKY helps mitigate the effects of age on deep sleep, and helps maintain a robust & restful sleep architecture as we age.