

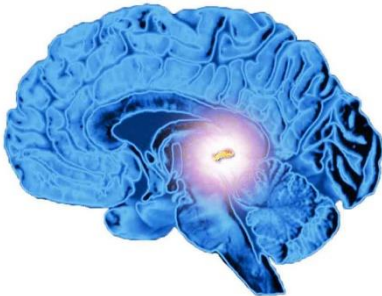


Study Tip # 24: Improving the Quality of Sleep

- Can't fall asleep quickly?*
- Don't fall into a deep enough sleep?*
- Do you feel sleepy during the day?*

Then you're not getting enough quality sleep at night. As mentioned in the previous study tip, teenagers need about 9 hours of quality sleep each night to meet the demands of growth and learning. But what should you do if you're getting the 9 hours sleep each night and you're still tired? What if you can't fall asleep at night?

Melatonin & Sleep



The pineal gland is a pea shaped gland found in the brain. It produces the sleep inducing hormone called melatonin, which occurs in the presence of darkness.

Factors that Affect Sleep

Inadequate Diet:

- Insufficient dietary intake of tryptophan (an essential amino acid) results in a decrease in melatonin production.

Tryptophan → 5-HTP → Serotonin → Melatonin

Therefore, eat a diet rich in tryptophan and eat tryptophan rich meals in the evening eg. Eggs, cheese, milk, chocolate, chicken, fish, peanuts, turkey, tofu, soy etc.

Regular insomniacs should invest in a quality essential amino supplement such as Amino Recovery (International Protein) or take melatonin supplements 1 hour before sleep.

- Deficiencies in iron, magnesium and zinc results in a need to oversleep. Therefore, take a quality multivitamin each day.

Insufficient Serotonin:

- Aim for at least 7.5 hours of sleep each night. It's mainly between the 6th and 8th hours of sleep when we produce serotonin and build the neural pathways that are involved in memory and learning.
- Invest in a quality essential amino supplement such as Amino Recovery (International Protein).

Prolonged Exposure to Light:

- Prolonged exposure to light suppresses the production of melatonin. Therefore, increase melatonin production by dimming lights 1-2 hours before sleep.
- Radiation from mobile phones delays and reduces sleep and causes headaches and confusion.

The research, sponsored by the mobile phone companies themselves, shows that using the handsets in the hour before sleep causes people to take longer to reach the deeper stages of sleep and to spend less time in them. This interferes with the body's ability to repair damage, causes mood and personality changes, ADD-like symptoms, depression, lack of concentration and weaker academic performance.

Dr Chris Idzikowski, the director of the Edinburgh Sleep Centre, says:

"There is now more than sufficient evidence, from a large number of reputable investigators who are finding that mobile phone exposure an hour before sleep adversely affects deep sleep."



A mobile phone within 3 metres will interfere with your sleep patterns (particularly the onset and duration of the REM cycles). You should therefore keep mobiles at least 3 metres away from your bed or switch them into flight mode.

- Blue wavelengths of light from the screens of smart phones, tablet computers and e-readers suppress the production of melatonin, delaying sleep onset and making us feel alert. Experts recommend that these devices should not be used 1-2 hours before sleep. If evening electronics are necessary, use blue-light filter glasses.



Alternatively:

Blue light filters can be installed on screens.

A variety of apps are available that reduce the emissions of blue light from phones and computers. Examples include F.lux (iPhone & PC) and Twilight (Android).

- Use melatonin friendly light globes. LED lighting suppresses melatonin production five times more than a high pressure sodium light.

Additional Suggestions:

- Go to sleep and wake up at the same time each day. Do not alter this routine by more than 1 hour.
- The quality of sleep is much higher if you fall asleep before midnight.
- If you have serious sleep issues, don't use caffeine, nicotine or alcohol 4 to 6 hours before sleep.
- Exercise regularly (best time is in the afternoon). Complete exercise at least 2 hours before sleep.

Sleep well.

Regards,
TSFX