Dr. Rob’s Science Connection -- Enhancing Brain Health

## Sleep and Memory

## Issue 2

Approximately 50% of older adults suffer from sleep problems or insomnia and this can negatively affect their memory ability, quality of life, and mood. In a 2007 study, researchers found that if people miss just one night of sleep, their ability and likelihood of recognizing things they had seen since the sleepless night decreased from 86% to 74%. One might therefore infer that insomniacs who didn’t sleep much the night before would have approximately a 12% reduction in their ability to make new memories. Others researchers have found that the ability to have sustained attention is affected by lack of sleep.

Sleeping medications certainly have their place, but while they often help people fall asleep, there is evidence that they negatively affect the quality of sleep. But the good news is that there are effective non-pharmacological interventions to enhance sleep. Below you will find many of the so-called sleep hygiene recommendations.

1. **Keep regular hours.**

2. **Exercise everyday but not in the evening.** Stretching and moderate exercise in the morning seems to be most beneficial in decreasing how long it takes to fall asleep and how long people stay asleep.

3. **Don't drink too much alcohol after dinner; it will impair the quality of sleep.**

4. **Take a nap during the day to increase daily sleep.** This recommendation is different from what has been suggested during the past 30 years, but new research shows it generally increases total daily sleep duration and quality of night sleep.

5. **Get more exposure to natural light during the day.**

6. **Avoid nicotine and caffeine, which are both CNS stimulants.**

7. **Unwind in the evening.** "The lamb and the lion may lie down together but the lamb won't be very sleepy" (Woody Allen). This mechanism is adaptive if there is a danger or threat, but it has had a negative effect on modern people whose lives are often full of chronic stressors.

8. **Don't go to bed starved or stuffed.**

9. **Don't associate the bedroom with wakefulness.** Don't eat, drink, or watch television in bed. If you can't go to sleep then get up and do something else besides worrying about not going to sleep.

10. **Don't ruminate in bed.** If you have thoughts that you would like to remember, write them down and stop thinking about them.

11. **Use the ultradian cycles to predict optimal times to go to sleep.**

12. **Control light and thus melatonin release.**

13. **Be sure to make the sleeping environment as comfortable as possible** (e.g., bedding, temperature)**.**

14. **Make sure the sleeping environment meets your standards of tidiness.**

15. **Try to reduce noise exposure during the night.**

16. **Engage in mindfulness meditation.**

Dr. Rob Winningham is a Professor of Psychology and Gerontology at Western Oregon University. For the past 20 years he has researched human memory and ways to enhance cognitive abilities. His brain stimulation activities are used by thousands of retirement communities and have been shown to improve memory ability. For more information go to: [www.robwinningham.com](http://www.robwinningham.com)

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