

Internal Medicine: 617/253-4481; **Mental Health Service:** 617/253-2916; **Center for Health Promotion:** 617/253-3646

Medical:
 If sleep problems persist for **more than 2 weeks**, contact MIT
 • Really sleep-deprived? Nap for a sleep cycle of **90 minutes**
 • Try to sleep for around **20-30 minutes**.
 • Try to time your nap about **8 hours** after you wake up.
 maximum benefit with the least disruption:
 Napping can be refreshing, but can also disrupt our circadian rhythm (the body's natural sleep-wake cycle). In order to get the

How to take a "Power Nap":
 pound weight gain. (Source: U. of Chicago, 12/07)
 • Healthy young adults deprived of slow-wave sleep developed insulin resistance in 3 nights – comparable to a 20-30 (Source: Nurses Health Study 8/07)
 • 33 pounds or greater; 15% more likely to become obese
 • Sleeping 5 hours per night = 32% percent more likely to gain
 • Research indicates that 7 hours or more protects healthy weight:
 • Depresses the immune system
 • Impairs mental health: depression, stress, anxiety increase
 • Impairs cognition and productivity

Inadequate sleep:
 • Maximizes cognitive and physical performance.
 • Rejuvenates/repairs damaged tissues
 • restore memories.
 • against decay. Sleep also appears to 'recover' or
 • Consolidates memories, protecting them
Adequate sleep (7.5-8.5 hours avg.):

Sleep and Napping



CHEAT SLEEP

Deep Sleep Tip #17



If you find that you are **too worried** to get to sleep, write down what's on your mind. Tell yourself that it is okay to let the piece of paper hold your list while you rest.

the center for
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How to Cheat Sleep: Better Quality ZZZ's



Remember: sleep goes in cycles throughout the night and the body needs to go into a relaxed brainwave pattern in order to drift off.
 Several lifestyle factors will help you squeeze more benefit out of each part of your sleep cycle, thereby getting better quality sleep. **These behaviors benefit sleep quality:**

- Get sunlight in the early part of the day.
- Keep your bedroom cool.
- Keep your bedroom dark and quiet.
- Stop productive activity at least 20 minutes before sleeping. The brain needs time to downshift from the faster brain-waves when awake to the slower brainwaves of restful sleep. In general, aim to go to bed and wake up at around the **same times each day**.
- If dawn arrives and you haven't slept, try to clear your schedule so you can go to bed **extra early the next night**.

Alcohol consumption:

- Increases the stress hormone cortisol=bad for relaxation and sleep
- Depresses deep sleep

Exercise:

- Afternoon exercise promotes sleep
- Morning exercise promotes sleep
- Source: Fred Hutchinson Cancer Research Center (2003)
- Evening exercise (within 2-3 hours of bed): not ideal

Eat and Drink for Better Sleep

Caffeine studies show:

- Caffeine takes about 6 hours to leave the body
- It speeds heart rate, blood pressure, and brain waves=bad for relaxation and sleep; no caffeine after lunch=good for sleep
- In order to evenly block the uptake of adenosine (neurotransmitter that helps trigger sleep), consume low, steady doses of caffeine
- The equivalent of a quarter of a cup of coffee (2 ounces or 30 mg of caffeine) per hour is optimal.

(Source: 2004 Air Force study)

Starbucks Coffee Grande (16 ounces) = 259 mg

8 ounces of black tea = 40-70 mg

8 ounces of green tea = 25-40 mg

8.3 ounces Red Bull = 80 mg

(Source: Mayo Clinic)



Nutrients for Sleep: B vitamins and Magnesium

- B complex vitamins can be found in most multivitamins. They support the "sleep cycle" and can help improve insomnia
- Magnesium relaxes muscles and nerves, leading to better sleep
- Sources of individual B vitamins:
 - Chicken, fish, meat, milk, spinach, eggs, whole grains, bananas, nuts, and beans
- Sources of magnesium:
 - The center of the chlorophyll molecule contains magnesium—therefore, green vegetables such as spinach are a good source