

NUTRITION & SLEEP

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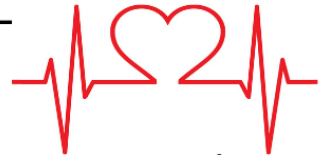
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WHAT HAPPENS DURING SLEEP

The sleep-wake cycle is controlled by the hypothalamus in the brain. Your brain produces melatonin in the evening which makes you sleepy and other hormones such as cortisol to wake you in the morning. You dream during REM sleep and go through several cycles of non-REM and REM sleep each night.

HEALTH BENEFITS OF SLEEP



- Sharper Brain-during REM sleep your brain gets rid of information it doesn't need.
- Mood Boost-your brain processes emotions during sleep and getting enough sleep causes more positive emotional reactions.
- Healthier Heart-during sleep, your blood pressure drops which give your heart a rest.
- Athletic Performance-growth hormone is released during sleep which prompts fat burning, bone building, and muscle repair and growth.
- Steadier Blood Sugar-during slow-wave sleep, glucose levels in the blood drop which helps protect from type 2 diabetes.
- Germ Fighting-lack of sleep may cause reduced immunity so you get sick more often.
- Eye Health-too little sleep can cause dry eyes.
- Weight Control-when you sleep well, you are less hungry and tend to make healthier food choices.

NUTRIENTS AND SLEEP

- Adults who sleep less than 6 hours per night are more likely to be deficient in calcium, magnesium, and Vitamins A, C, D, and E.
- Low calcium intake is associated with difficulty falling and staying asleep and poor bone health.
- Good sources of calcium are dairy products, leafy greens, and tofu made with calcium.
- A magnesium deficiency is associated with very short sleep and daytime sleepiness.
- Magnesium is found in nuts, leafy greens, some breakfast cereals, and fortified foods.
- Inadequate Vitamin A is associated with short sleep. Vitamin A helps the eyes sense light and is found in many foods such as fatty fish and many fruits and vegetables.
- Vitamin C is an antioxidant and low levels are associated with short sleep. The best sources of Vitamin C are citrus fruits, red and green bell peppers, and kiwi.
- A Vitamin D deficiency is associated with a higher risk of sleep disorders. Fatty fish such as salmon are the best dietary sources of Vitamin D.
- Vitamin E is an antioxidant and may protect against memory impairment from sleep deprivation. Nuts and seeds are good sources of Vitamin E.
- Sleep is also influenced by macronutrients such as protein and carbohydrates.

THINGS THAT INTERFERE WITH SLEEP



- Caffeine promotes wakefulness by blocking a chemical that makes you feel sleepy. Curtail caffeine intake after noon, because you may experience insomnia when caffeine is wearing off.
- Alcohol is a depressant that disrupts the REM stage of sleep and may interfere with breathing.
- Blue light from electronic devices interferes with the release of melatonin which makes you sleepy.
- Exercising and eating a large meal within 2 hours of bed can also interfere with sleep.

POPULAR EATING PLANS & SLEEP

- Mediterranean diet includes mostly plant products and is associated with better quality sleep and an easier time falling asleep.
- Keto diets limit good carbohydrates which provide Vitamin B6 and may be linked to insomnia and depression.

FOODS & NUTRIENTS THAT PROMOTE SLEEP

- Turkey is rich in the amino acid tryptophan which is used to make melatonin to make you sleepy and serotonin which promotes a sense of calm.
- Many nuts contain melatonin to make you sleepy.
- Cheese is packed with calcium, magnesium, and tryptophan. Pair it with a healthy carbohydrate like whole grain bread or whole grain crackers.
- Yogurt is a fermented dairy food and helps improve gut diversity which is linked to better sleep.
- Pumpkin seeds are a rich source of magnesium which activates a chemical in the brain that helps calm the nervous system.
- High rice consumption is significantly associated with good sleep. Choose brown rice which is higher in fiber because fiber helps prevent blood sugar spikes that lower melatonin.
- Kiwi contains serotonin which makes melatonin to help you fall and stay asleep.
- Tart cherry juice is high in melatonin and may be beneficial in improving sleep quality. Drink 8 oz. of unsweetened tart cherry juice before bed.
- Chamomile tea is made from herbs and promotes sleepiness and green tea can lower stress and improve sleep quality.
- Omega 3 fatty acids from fatty fish and ground flaxseed can improve sleep quality and quantity.



OTHER SLEEP TIPS

- Lavender slows heart rate and lowers blood pressure and skin temperature to promote relaxation.
- An aloe vera plant on your nightstand can increase the amount of time you spend in restorative slow-wave sleep.
- Ultraviolet light box in the morning tells the body to stop making melatonin and resets melatonin levels in the brain.
- Progressive muscle relaxation is when you tense and then relax parts of your body to release tension.
- Daily Recall Meditation involves recalling the positive and negative aspects of your day and focused breathing before bed.
- Suggested Reading: *Eat To Sleep: What To Eat and When to Eat It for a Good Night's Sleep-Every Night* by Karman Meyer, RDN, LDN