

METABOLIC RESET



SOURCE: www.hopkinsmedicine.org

SLEEP IS IMPORTANT- WITHOUT IT, YOU'LL AGE FASTER AND FEEL WORSE.

SLEEP

Is Just As Important
For Optimal Health As
Eating Nutritious
Foods And Exercising



How Much Sleep Do You Need?

Most of us need at least 7-9 hours of restful sleep a night. It's hard to be on top of your game without at least 7 hours. Unfortunately, about a third of American works get less than 6 hours of sleep each night, which ends up costing American businesses \$63 Million annually due to lost productivity.

Sleep deprivation can be linked to increased stress, higher blood pressure, impairment of blood glucose, and inflammation.

Sleep deprivation doesn't just affect those who are getting an insufficient amount of rest, it also affects others on the road. The National Highway Safety Administration has stated that drowsy driving is responsible for at least 100,000 accidents per year.

Average Hours of Sleep Per Night



AMERICANS REPORT THEIR SLEEP QUALITY

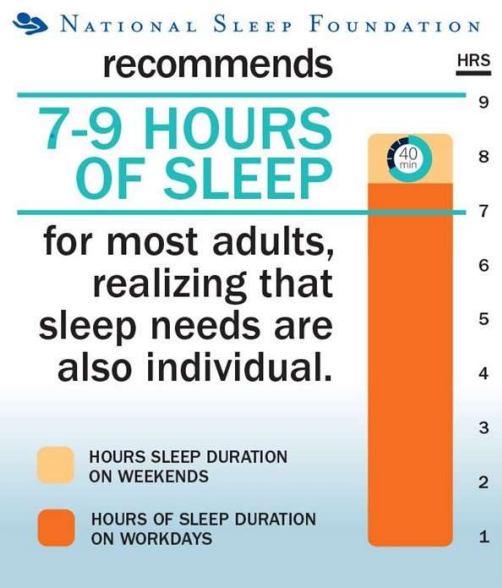


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Age Recommended Amount of Sleep per Night

- Newborns 16-18 hours
- Preschool-aged children 11-12 hours
- School-aged children At least 10 hours
- Teens 9-10 hours



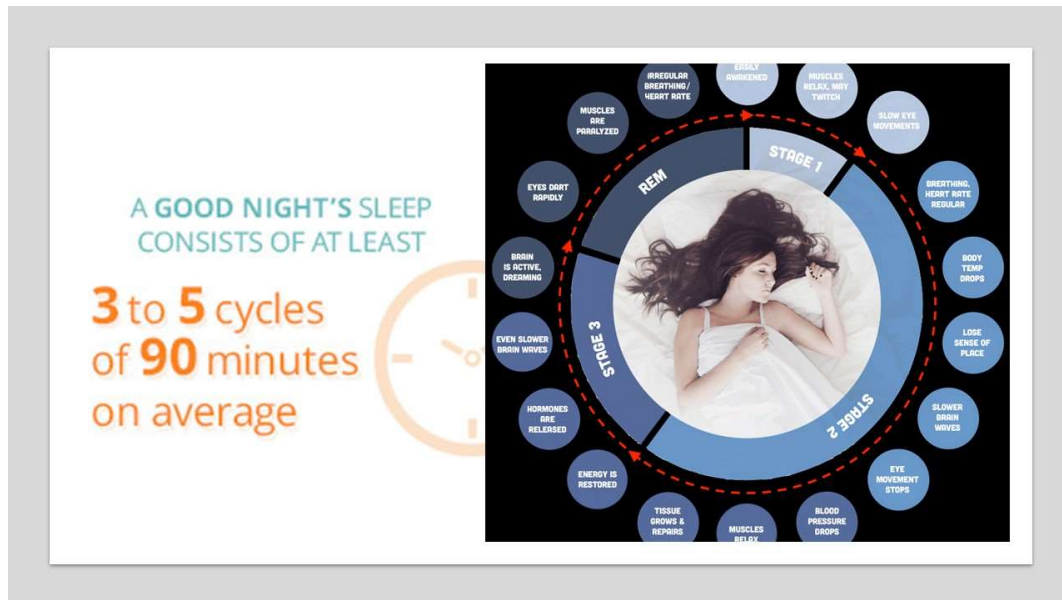
HOW MUCH SLEEP ARE AMERICANS GETTING?

According to the American Psychological Association, at least 40 million Americans suffer from over 70 different sleep disorders and 60% of adults report having sleep problems a few nights a week or more. Americans sleep 90 minutes less per night than they did 100 years ago.

STAGES OF SLEEP

There are different stages in our importance of sleep that we cycle through during the night: Non-REM and REM sleep. REM stands for Rapid Eye Movement. For the most part, we are unconscious and unaware of our surroundings during these stages.

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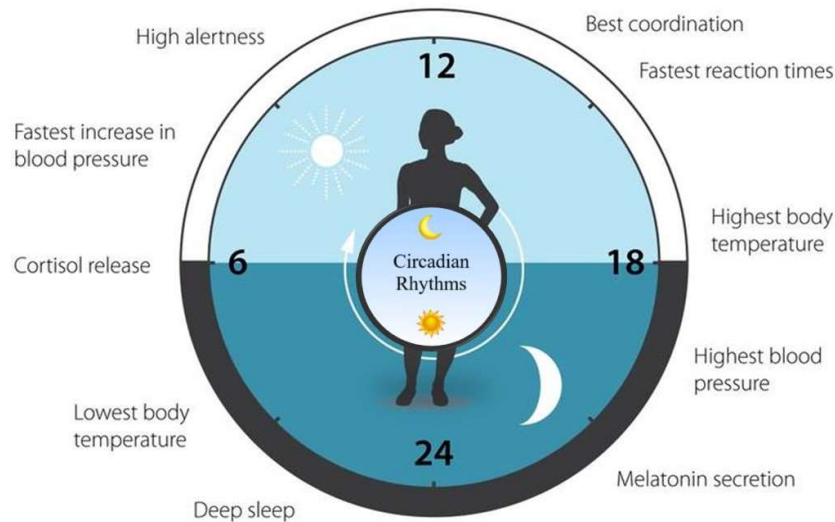
Non-REM Sleep

- During the first few hours of sleep, the majority of our brain waves are in Non-REM sleep.
- These brain waves are very different from when we're awake.
- In this stage, the muscles of the body all relax and recover from our daily movements.
- This is also the time in which the body heals itself.
- If a person is awoken during Non-REM sleep, they may experience a headache. This is because the brain waves are making a vast change from sleep to awake which can be difficult to process for the brain to handle.

REM Sleep

- After about four hours, the majority of our brain waves are in REM sleep.
- REM sleep brain waves are very similar to brain waves when the body is awake.
- The only difference is that the body is paralyzed during REM.
- In REM sleep, the brain starts to process things we learn during our day.
- It also rejuvenates the hormones we need in our daily lives.
- Remembering dreams is a good sign the body is getting a good amount of REM during sleep. When people wake up from a dream, they may feel it's easier to get out of bed. This is because the brain waves aren't changing too much from REM sleep to awake.

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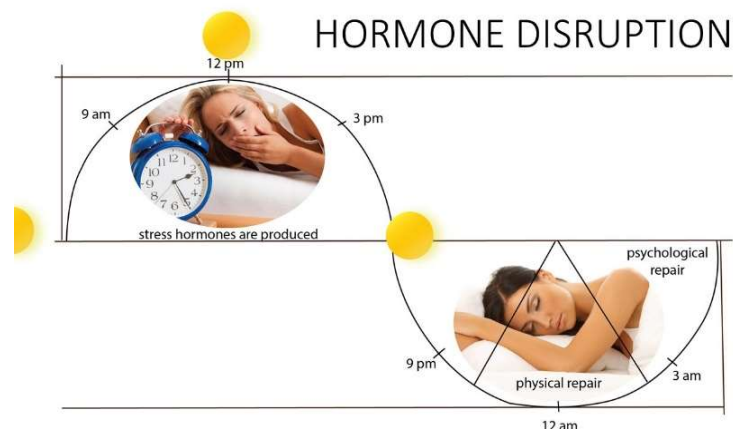


SLEEP CYCLES AND OUR CIRCADIAN RHYTHMS- PARALELL EACH OTHER

We evolved along with the rhythms of day and night. These light and dark signals trigger a cascade of hormonal and neurochemical reactions that keep us healthy by repairing our DNA, committing new information to memory, building tissues and muscle, and regulating weight and mood chemicals.

One of the best ways to improve your sleep is to get bright sunlight upon waking and keeping your bedroom dark for sleeping.

This includes removing all light, including television and technology. Even the light from your phone can disrupt your circadian rhythms, undermining the release of natural of stress relieving, sleep, and restorative hormones.



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SHORT TERM EFFECTS OF SLEEP LOSS

If you're someone who sleeps 5 hours a night and then drinks lattes or takes medications to stay awake, you might seriously reconsider these habits if you want to lose weight and live a healthy life.

SIDE EFFECTS FROM MISSING SLEEP

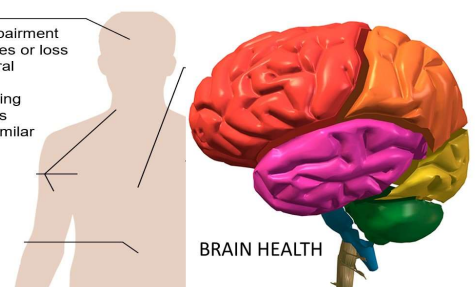
BRAIN

Studies have shown that in order for one's brain to function at its best, and for maximum alertness and mental clarity, one needs restful sleep. Poor sleep quality was found to favor brain atrophy and to decrease focus and attention.

Thus, although people who only get 3-4 hours of sleep per night can deliver the same results when it comes to everyday activities, they won't be able to solve problems that require attention and mental clarity with the same efficiency as people who get enough rest.

SIDE EFFECTS FROM MISSING SLEEP

- Irritability
- Cognitive impairment
- Memory lapses or loss
- Impaired moral judgement
- Severe yawning
- Hallucinations
- Symptoms similar to ADHD



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HEART

Getting less than 7 hours of sleep per night can increase your chance of a heart attack by 100%.

Sleep deprivation is linked to an increased risk for heart disease and hypertension. Studies have shown that sleep-deprived people are more prone to coronary artery calcification and heart attack, and that the lack of sleep increases the risk of sleep apnea, irregular heartbeat, and stroke.

BREAST CANCER

In addition to this, lack of sleep can double the risk of breast cancer.

BODY COMPOSITION

- Sleep deprivation interferes with muscle recovery which can lead to loss of muscle mass, strength, and metabolism.
- People who slept less than 5.5 hours per night lost up to 60% more muscle and 55% less fat.
- People who slept 8.5 hours per night lost 55% more fat and lost 60% less muscle.
- Getting one additional hour of sleep per day can help you to lose up to 14.3 pounds per year.



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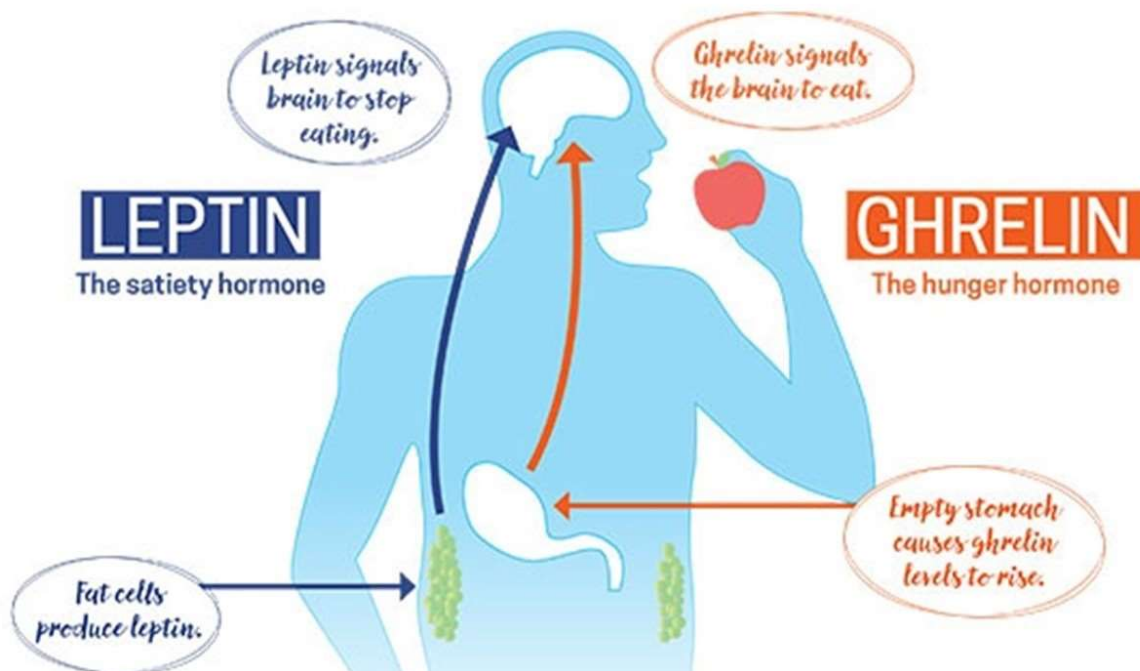


SLEEP DEPRIVATION AND HORMONE DISRUPTION

The production of hormones is regulated while we sleep. Sleep deprivation can severely impact the sympathetic nervous system and send it into overdrive. This leads to an excess production of the fight or flight hormone: adrenaline. When there's too much adrenaline inside the body, it leads to increased heartbeat, blood sugar and cortisol.

Cortisol and insulin are released in higher amounts in people who are sleep deprived. Insulin, which is responsible for moving sugar from the bloodstream to cells, can become more resistant with sleep deprivation. Over-production of this hormone makes one more prone to diabetes, excess fat gain, and heart disease.

In people that are chronically sleep deprived, elevated cortisol disturbs blood sugar balance and insulin sensitivity. This causes resistant weight gain, especially around the middle. Excess cortisol also stimulates the breakdown of muscle tissue for energy production, which is not ideal since muscle mass is also our metabolic engine.



Sleep deprivation causes changes to the hormones that regulate hunger and appetite.

The hormone leptin suppresses appetite and encourages the body to expend energy. Sleep deprivation reduces leptin.

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The hormone ghrelin, on the other hand, triggers feelings of hunger—and ghrelin goes up with sleep deprivation.

When your body is sleep deprived, it will ask for extra fuel to fill its dampened energy needs. Added to the imbalanced hunger hormones, you'll crave for high calorie sugary foods for that quick source of energy. Because sleep deprivation also compromises our ability to make good decisions, we're also 50% more likely to indulge in those treats.

It doesn't take a lot of sleep deprivation to stimulate weight gain. A study from researchers at the University of Colorado found that one week of sleeping about 5 hours a night led participants to gain an average of 2 pounds.

HOW IS YOUR SLEEP HYGIENE?

SELF ASSESSMENT

Do you wake up feeling unrested in the mornings?

Do you wake up throughout the night?

Is it hard to go through the day without feeling tired all day long?

Is it hard to get to sleep at night?



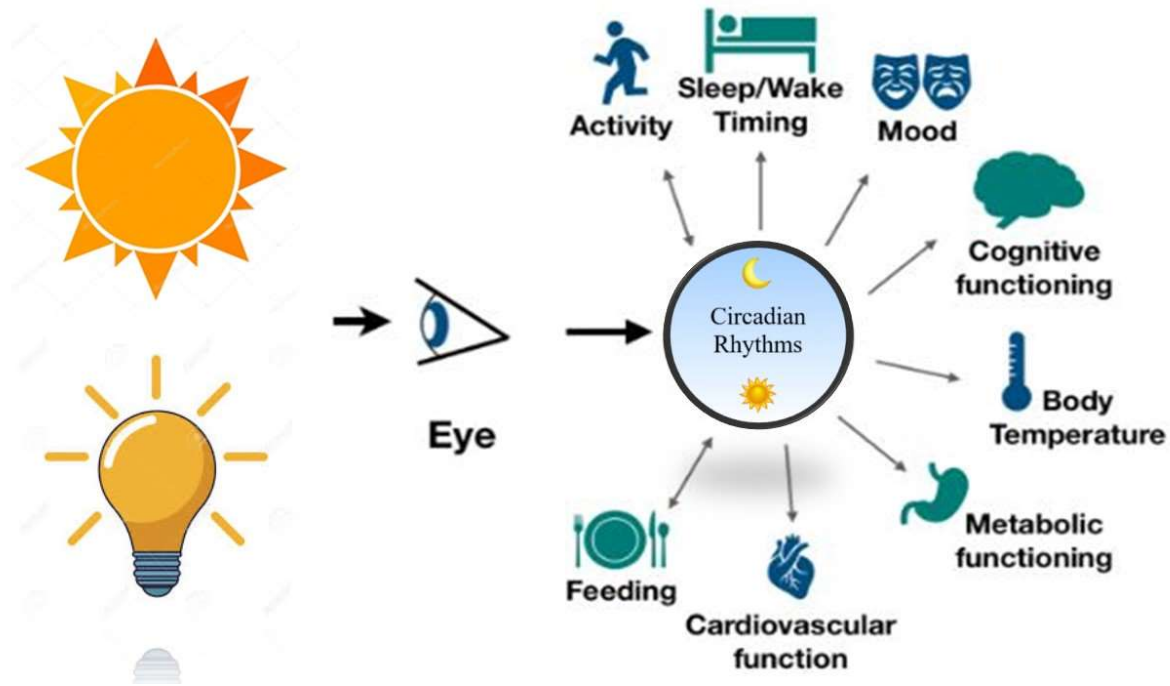
If you answered yes to any of these, you need to improve your sleep hygiene.

TIPS TO IMPROVE SLEEP HYGIENE

Get Natural Light

Natural light also helps your internal clock maintain a consistent sleep-wake cycle. When you first wake up, open your curtains/blinds to let in the morning sunlight. Throughout the day, take breaks to go outside and enjoy the fresh air and sunlight.

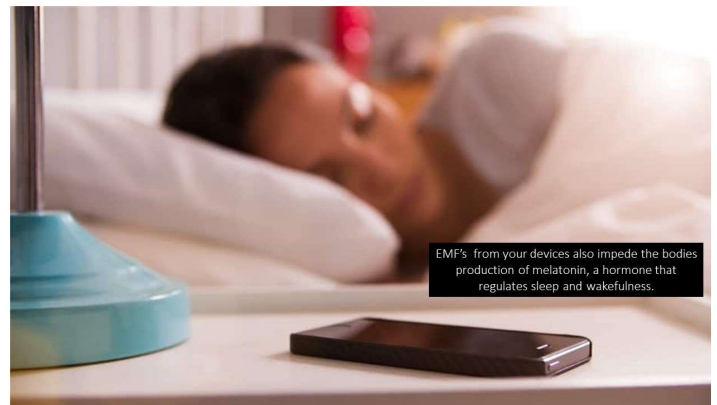
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Turn Off Electronics at Night

Watching television or using a computer is a common way to unwind at the end of the day, but it can have negative effects on your ability to fall asleep. Studies show the light emitted from these devices suppresses melatonin production and stimulates the mind. Instead of browsing the web or watching a movie, read a book or listen to music to relax before bedtime.

Don't work in bed- Empty your brain with a to do list.



EMF's (Electro-Magnetic-Field)

EMF's impede the body's production of melatonin, a hormone that regulates sleep and wakefulness. This happens because the pineal gland (where the melatonin is produced) senses the EMF's as light, and therefore slows the melatonin production.

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Don't eat or drink late at night.
Don't drink caffeine after noon.
Limit alcohol, food and water before bed.
Never smoke!

Watch What You Eat & Drink before bed

Avoid large meals before bedtime. Try eating 2 hours before bed and avoid rich foods which cause your stomach to work harder to digest disrupting your sleep schedule.

Limit caffeine. The half-life of caffeine is 6 hours, and your body isn't completely rid of it for 12 hours after drinking. If you have sleep problems, consider cutting back on afternoon caffeine consumption or cutting it out altogether. Try [buckwheat tartary tea](#) instead!

Don't drink alcohol close to bedtime. Though you may think alcohol will help you fall asleep faster, it can lead to poorer quality of sleep, as it causes you to wake up later on during the night.

Drink fewer liquids at night. Drinking too many fluids close to bedtime may cause frequent bathroom trips throughout the night, therefore disturbing your sleep. The exception might be herbal teas.

Turn down the thermostat. Experts say that the best temperature for optimal sleeping is between 60- and 67-degrees Fahrenheit.

Cooler temps help your body to cool down, and naturally feel drowsier. Temperatures that are much higher or much lower than the optimal temperature can lead to restlessness or discomfort or cause you to wake repeatedly during the night.

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Make your a
bedroom a dark oasis.
Primarily for sleep & sex.

Make your Bedroom a Sleep Mecca

Creating a dark, quiet and cool sleeping environment can promote better sleep. In addition to sleeping on a comfortable and supportive mattress and pillow, you may want to experiment with black out curtains, eye shades, “white noise” machines, fans, humidifiers and other devices to reduce sleep distractions.

Get Regular Exercise

Daily exercise leads to better sleep and vice versa. Aim for at least two hours and 30 minutes (150 minutes) of moderate-intensity aerobic activity every week and muscle-strengthening.

Develop a Sleep Ritual

Turn off your electronics an hour before bedtime, take a bath, read a book, slip into cool sheets in a dark room at the same time every night. (Did you know the hours you sleep before midnight are considered “magic” hours because they’re twice as restorative?). By prioritizing sleep, you’re giving your body the main ingredient underlying all other good health practices: rest and recovery. Without sleep, all other efforts and outcomes are severely compromised.