

Sleep Problems? Gardening May Help

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STORY AT-A-GLANCE

- › It is estimated that 83 million American adults are sleep deprived. This can disrupt your circadian rhythms and lead to a cascade of health challenges
- › Elevated blood pressure, inflammation, cancer risk, dysregulated hunger hormones, stress and diabetes are just a few of the health issues associated with sleep deprivation
- › A survey of 62,000 U.S. participants found gardening was associated with reduced sleep complaints. The same study found a higher duration of time spent gardening lowered the odds of sleep complaints further
- › Sun exposure and exercise are two key benefits linked to gardening, which combined with access to nutritious food make it a health-promoting hobby
- › With modern technology, diets and lifestyles creating so many obstacles to getting the healthy sleep you need, the combination of gardening and other sleep hygiene practices can have a hugely positive impact on your health

Every aspect of your health will suffer without proper sleep. Yet this is a neglected area of health and is often sacrificed first by Americans looking to be more productive and active. Far from a waste of time, sleep is foundational to health and something you should prioritize on the same level as diet and exercise.

The National Council on Aging¹ reports that a third of Americans get less than seven hours of sleep daily. Another 30% suffer insomnia symptoms with 10% finding it

adversely impacts their daily activities. In total, 13.5% of adults report feeling tired or exhausted most days.

The Scourge of Sleep Deprivation

The amount of sleep you need can vary. The percent of adults not getting enough sleep has remained consistent since 2013.² Thirty-nine percent of adults 45 to 64 are not getting enough sleep and a slightly higher percent of men are sleep deprived at 37% versus 35.4% of women.

Sleep deprivation also varies by region, with the Southeastern U.S. and Appalachian regions being especially hard hit. The map of sleep deprivation by county directly coincides with the highest rates of diabetes, hypertension, heart disease and stroke,³ which is major clue to how important sleep is.

A lack of sleep has been linked to a poor quality of life and an increased risk for chronic disease, obesity, cancer, stroke, dementia and even death.⁴ The amount of sleep we need varies. Adults 18 or older should aim for at least seven to nine hours. This is sufficient time to allow your mind and body to recover, provided it is quality sleep.

Wakefulness and poor sleep are associated with neuron degeneration and mitochondrial stress.⁵ Animal research reveals considerable and irreversible brain damage from inconsistent sleep.⁶

The glymphatic system, which flushes waste from your brain ramps up during deep sleep. Dreams during deep sleep also perform an important cognitive function that helps you gain insight and perform better at daily tasks. The U.S. CDC table below provides an estimate for how much sleep we need by age.

Age group	Hours of sleep needed for health
Newborns (0 to 3 months)	14 to 17 hours
Infants (4 to 11 months)	12 to 15 hours

Age group	Hours of sleep needed for health
Toddlers (1 to 2 years)	11 to 14 hours
Preschoolers (3 to 5)	10 to 13 hours
School-age children (6 to 13)	9 to 11 hours
Teenagers (14 to 17)	8 to 10 hours
Adults (18 to 64)	7 to 9 hours
Seniors (65 and older)	7 to 8 hours

Gardening Linked to Improved Sleep Duration and Quality

A recent investigation found a positive connection between gardening and sleep. A survey of over 62,000 participants found gardeners who did not otherwise exercise had a much lower likelihood of experiencing sleep complaints than other non-exercisers. Sleep health increased with the duration of time spent gardening.⁷

Improved sleep duration was not the only benefit. Gardening also had a positive impact on sleep apnea, daytime sleepiness and insomnia.⁸ Activity and sun exposure are two key components of gardening that make it a health promoting activity. The U.S. Centers for Disease Control and Prevention classifies gardening as a form of moderate cardiovascular activity. Gardening 30 to 45 minutes daily can burn 150 to 300 calories.

Keep in mind that gardening involves a lot of activities and not all are created equal. Raking, digging, intensive weeding and mowing can burn as many calories as moderate to high-intensity exercise.⁹ These gardening activities can restore dexterity and strength. More passive activities like standing and watering will not increase your heart rate much but they will get you crucial sun exposure.

Reset Your Circadian Rhythms While Gardening

Gardening is an engaging form of exercise that combines exposure to nature with physical activity.¹⁰ Exposure to natural sunlight also helps regulate your body's circadian rhythms, which serve as an internal clock that governs your sleep-wake cycle. Exposure to bright sunlight in the morning and at solar noon helps to properly "set" your master clock.

The human master clock consists of a group nerve cell called the suprachiasmatic nucleus (SCN).¹¹ The SCN controls melatonin production and synchronizes with every cell in your body. Even 30 minutes of sun exposure can improve your sleep and regulate your internal clock and promote better sleep.¹² Sunlight also increases vitamin D levels and lowers blood pressure.¹³

Gardening also has a positive influence on stress. Communal gardens as a setting for social interactions may counteract the isolation of depression, dementia and learning disabilities.¹⁴ Studies have also shown that growing and eating your own vegetables and fruits has a positive impact on diet.¹⁵

How to Successfully Start Your Own Garden

There are plenty of reasons to start gardening, but it may seem like a daunting task if you have never done it before. The first tip is always to start small and do not overextend yourself. The larger the garden, the more work there is to be done. This can cause stress and with space permitting you can always increase the size of your garden later.

One of the keys to a successful garden is to use **wood chips**. They are easy to obtain, can be sourced locally and optimize soil microbiology with very little effort. After watching the short documentary back in 2014, I contacted my local tree cutting service. They were able to drop off truckloads of wood chips for free.

Your local forestry department may also offer free mulch and woodchips, there are even websites that help coordinate woodchip drop offs from arborists and tree companies

looking to get rid of it.

Once you have completed the work of covering the soil around your trees and plants with mulch, they will begin to work their magic. The payoff is that wood chips eliminate or dramatically reduce the need to weed, water and fertilize.

Within months of putting down a deep layer of woodchips you will have fertile and nutrient dense soil beneath the chips that will support whatever you choose to grow. Do not plant in the chips but the soil underneath, then cover the plant to below the first level of leaves. I have found woodchips reduce my need to weed by over 90%. The weeds that do grow are easily removed by their roots because of the lush soil.

Wood chips also reduce water evaporation from the soil. At night they absorb moisture from the air and release it back into the soil as needed. The soil itself not only enjoys a radical increase in bacteria, fungi and protozoa but it also attracts earthworms.

Earthworms create vibrant vermicompost which is highly sought after by gardeners. Rather than needing establish an earthworm farm, woodchips attract and nurture those living in your soil already.

This combination of attributes makes woodchips an ideal foundation for your garden, removing the need for fertilizers, increasing yields, reducing water use, eliminating untold hours of weeding and increasing the nutrient density of your soil. They also insulate the soil, moderating extreme temperatures and protecting the soil from freezing.

Biggest Threats to a Good Night's Sleep

While gardening appears to be very helpful for sleep, it's certainly not the only way to get more Z's. Previously, I have outlined [50 ways to improve your sleep](#). The first and most important step is to sleep in complete darkness or as close is possible. A well-fitted sleep mask is a great alternative if blackout shades are out of your budget. Wearing an eye mask during overnight sleep has been shown to improve episodic learning and alertness.¹⁶

It is also crucial to avoid turning on any lights during the night, even when going to the bathroom. If a night light is necessary, use a red bulb, as red light does not shut down melatonin production. If you live in an area with noise pollution you will find that simple and inexpensive ear plugs can reduce most ambient noise.

EMFs can also have a radical and negative impact on your sleep. Always shut off the Wi-Fi at night and move alarm clocks and electrical devices from the vicinity of your bed. Three feet is the minimum but the further away the better. If you cannot put your cellphone into airplane mode overnight at least keep it as far away as possible. For even greater protection, turn off the power to your bedroom overnight.

Comfort is also key, with an optimal temperature between 60 to 67 degrees F. (15.6 to 19.4 degrees Celsius). This cooler temperature mimics your body's natural temperature drop. Poor diet, stress, obesity, alcohol, caffeine, prescription drugs, disruptive pets and drinking fluids have the potential to wreak havoc on your sleep quality.

Additional Tips to Achieve Better Sleep

A consistent bed time is crucial to optimize your circadian cycle and going to bed as early as possible is how nature intended humans to live. Electricity and electric lights are recent technological innovations. EMF pollution and interference are newer still. If it is a viable option, candle light is preferable to LED lighting.

Your bed should be an area for sleeping only and removing distractions will make it easier to fall asleep at your bedtime. Avoid watching TV, browsing your phone and working on your computer in bed.

Screentime and lights after dark are unavoidable for most of us but blue-blocking glasses after dark can ameliorate some of the sleep challenges posed by modern technology. Consider putting down your work at least an hour before bedtime. There are also natural sleep boosters such as chamomile tea, melatonin, valerian root and CBD oil.

Sleeping nude can improve your sleep, it will help you keep cool while improving metabolism and blood circulation.¹⁷ You can wear socks to keep yourself from waking

up because of cold feet. Combining gardening, sun exposure and these sleep tips can help you get the full night's sleep you need.

Sources and References

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