

**Gardeners' World** magazine

grow yourself healthy

# Improving sleep

Struggling to get a good night's shut-eye? **Sarah Johnson** reveals how gardening more could be the answer...



**The UK is facing** a sleep-loss epidemic according to experts such as clinical psychologist Professor Vicki Culpin, who states in her book *The Business of Sleep*: "Never before have significant percentages of working adults been so sleep deprived."

High levels of sleeplessness increase the risks of contracting maladies, from infections, like colds, to serious diseases such as diabetes, stroke, heart attack and cancer. Sleep loss also significantly impacts mental health, being a major

contributor to depression and anxiety. Even a day or two of severe insomnia can cause otherwise healthy people to suffer hallucinations.


After a poor night's sleep, cognitive abilities take a hit, too. Concentration and memory are noticeably affected and people are more likely to exhibit impulsive behaviours.

So how do you ensure you get the best night's sleep? Read on to discover how gardens and gardening could be key ...



ALL ILLUSTRATIONS: VICKI TURNER





**Sleep is important** because it's when the body recuperates, explains Julie Darbyshire, Senior Critical Care Researcher at the University of Oxford and currently investigating sleep in

intensive care units. "It's when you regenerate and heal. It's also when the mind recovers," she says. On average people are advised to have six to eight hours sleep a night, with about 20 to 30 per cent of that comprising REM (rapid eye movement) sleep – which is when your brain processes the day's activities and information. A further 20 to 30 per cent should comprise slow wave sleep – deep sleep that is restorative. Both types are essential for a healthy body and mind.

So what role can gardening play in improving your sleep? "Gardening is a positive thing to do in itself," says Julie, "but can be a conduit for other things." For example, a good bout of strenuous gardening can raise your heart rate and thus constitute aerobic exercise. "Your body needs to be tired to go to sleep, and gardening is a great way to get an all-body workout," she says, adding that once people have started on some tasks in the garden, they often want to continue, which leads to more physical exertion. There is a consensus view that undertaking aerobic exercise (i.e. exercise that increases your heart rate) for 30 minutes, five times a week, will help with improving sleep.

Dr Olivia Chapple, chair of trustees for Horatio's Gardens, a charity that creates and cares for accessible gardens in NHS spinal injury centres, adds: "In some people, the timing of exercise has an effect on sleep, but this seems to be

quite individual. In people with chronic insomnia, increasing their exercise will help – it's not a quick fix but a long-term remedy."

Being outside in the daylight is also good for sleep. Research suggests that if you put people in a dark place with no visual clues as to whether it's daytime or not, it causes alterations in the body's circadian rhythm – an internal 'clock' that triggers periods of sleepiness and alertness. Gardening outside boosts exposure to daylight, which helps set the circadian rhythm so that when it gets dark, the body prepares for sleep.

### Reap the benefits

Apart from the physical value of engaging in the activity of gardening, harvests from your plot can also be of benefit. There are herbs whose properties have been recognised through the ages as assisting with sleep. Clinical trials support the effect of valerian root on sleep, although the evidence is slight and chamomile is widely used as a sleep aid, even though there is sparse actual evidence of its efficacy. There have also been studies showing how smelling lavender oil before going to bed can improve sleep quality, plus magnolia bark is thought to increase the quality and quantity of sleep. Chapple explains that the effects of many herbs are not supported by robust trials because they're

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Your body needs to be tired to sleep, and gardening is a great workout  
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readily available with no financial incentives for pharmaceutical/commercial companies to invest in studies.

Julie Darbyshire's research has led her to think about raising awareness of the role gardens can play and how hospital environments might be redesigned to incorporate outdoor spaces and promote better sleep. Dr Chapple is also aware of the noisy environment in hospitals for those needing rest. "Virtually every patient [in a spinal unit] has trouble sleeping," she explains. "Those with a spinal injury are usually in a state of stress. You have to be turned every three hours to stop pressure sores. There's a lot of hustle and bustle and noise that goes on in a shared ward space."

Margaret Kievel, 54, experienced this environment firsthand when she was admitted to the spinal treatment centre at Salisbury district hospital a year ago after suffering a spinal stroke that paralysed her. She remembers: "My sleep pattern was horrific to start with. I just didn't sleep at all because I had to be turned every hour. Then, mornings were really busy because everybody needed help with breakfast, washing and getting dressed. It's a vicious cycle. If I didn't have any sleep, the rest of the day I felt lethargic. At the start, all I did was lie in bed and I think that makes

it worse. You can't get out, or get any fresh air."

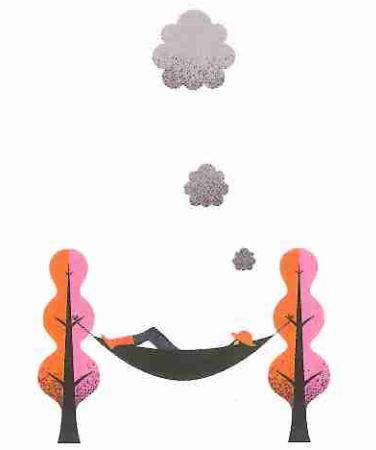
Her situation changed dramatically when she was well

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The garden and fresh air made a huge difference to my sleep  
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enough to go into Horatio's Garden at the hospital. With her husband who is a landscape gardener, she had an interest in gardens and having heard about the one on-site from other patients she was keen to explore it for herself.

"When I arrived thousands of tulips had come up," she remembers. "To go round and look at it was wonderful. Having the garden and getting fresh air made a huge difference to my sleep. It refreshes you. It's hard to put into words." She adds: "It brings a bit of normality back to your life. It helps you sleep because you relax, you're not in the hustle and bustle."



It's not just hospital patients, but everyone whose sleep can benefit from gardens and gardening and several healthcare professionals espouse the benefits of gardening for

sleep. Dr Kirstie Anderson, a consultant neurologist who runs the Regional Neurology Sleep Service in Newcastle, often prescribes daylight and exercise, and sees gardening as one way of getting both. She says: "Natural light rather than indoor [light], out-of-breath exercise and cold are the body's best timekeepers for the circadian rhythm." Dr Mike Farquhar, consultant in children's sleep medicine at Evelina London Children's Hospital, adds: "Good quality sleep depends on people having good quality routines around sleep. We're all carrying around more stress than we should be and gardening is one of the things that can help people wind down."





## Improve your sleep by...

### INCREASING YOUR EXPOSURE TO DAYLIGHT

Get into your garden and the daylight. Vitamin D, contained in sunlight, helps not only the quantity but the quality of sleep. The body learns a normal rhythm. Being outside boosts the exposure to bright natural daylight and that helps to set the body's internal clock.

### DOING MORE EXERCISE

Start by doing some gentle exercise in the garden to increase your heart rate. According to Julie Darbyshire: "Just a bit of pottering about can give you some physical exertion. If you're not physically tired, you won't go to sleep."

### GROWING YOUR OWN CROPS

Grow and eat tomatoes, strawberries, walnuts, and cherries - they all contain melatonin, which enhances sleep.



### SOWING SEEDS

Sow seeds to instil calm and encourage you to think about them growing in the future. Gardening is good for your mental wellbeing, and if you are anxious you'll have trouble sleeping.

### GROWING HERBS

Kick the caffeine habit and use healthy, homegrown herbs like mint and chamomile to make tea. There are also some herbs that can be built into your sleep routines - sniffing lavender oil before bed or taking shop-bought valerian root remedies are traditional techniques that can help.

**JOIN THE CONVERSATION** Visit [gardenersworld.com/gyh](http://gardenersworld.com/gyh) to discover more about our Grow Yourself Healthy campaign and ways to improve your sleep.

Let us know how gardening has improved your health - get in touch via our usual addresses on page 22, or email us at [letters@gardenersworld.com](mailto:letters@gardenersworld.com)

**NEXT MONTH** How gardening can improve your happiness

