



## Sleep for High Performance

### Defining sleep

Sleep is a naturally-occurring state of altered consciousness, with reduced activity of almost all voluntary muscles, reduced sensory awareness, and very little interaction with your surroundings. At the same time, your brain is active, passing through a repeating cycle of different brain states.

### The purpose of sleep

Sleep is essential to survival. It affects almost every type of tissue and system in the body – from the brain, heart and lungs, to metabolism and prevention of illness. During sleep, your psychological and physiological systems replenish and prepare for the next day's requirements.

- Psychological recovery restores mood, motivation, ability to learn, and ability to recall and consolidate memories
- Physiological recovery enables your body to repair and strengthen muscle; maintain bone health; reduce inflammation; metabolise fats and glucose; and to support your cardiovascular, neuroendocrine and immune systems.

### Sleep and the performing artist

Most people need 7-9 hours of sleep each night to support optimal general health and daily activity. However, many performing artists are likely to benefit from 10 hours of sleep each night when coping with the physical, emotional and cognitive demands of training, rehearsals or performances. When challenges are high, extended sleep can lead to better mood and higher quality performance while also contributing to recovery from psychological and physical injury.

If your night-time sleep has been disturbed or insufficient, a short (30-minute) daytime nap can assist your alertness as well as your mental and physical performance. To ensure you can sleep well at night, allow as much time as possible (ideally 8 hours) between waking from your nap and going to bed for the night.

For performers, it can seem impossible to schedule sufficient, regular sleep within constantly changing rehearsal and performance times; long-distance travel and jet-lag; unfamiliar environments and climates; and extra training time to maintain performance levels. Planning your sleep hours as each day's schedule is posted can help you keep rested and ready to perform.

### Sleep disturbances

Difficulty in falling asleep and/or numerous waking periods can lead to insufficient amounts of each of the sleep stages and negative health and performance outcomes. For instance, REM (rapid eye movement) sleep, enhances recovery processes and leads to better wakefulness during the day. Since periods of REM sleep are more frequent and last longer in the last third of night-time sleep, performers benefit by scheduling extended sleep each night.

### Insomnia

Insomnia is defined as persistent difficulty in falling or staying asleep, or nonrestorative sleep, associated with distress and/or with significant impairments in daytime function. To arrive at a comprehensive solution, sufferers are strongly advised to ask a doctor whether their insomnia may be linked to health problems such as sleep apnoea, depression or anxiety.

A chronic lack of sleep increases the risk of high blood pressure, cardiovascular disease, diabetes, depression, and obesity. Short-term sleep deprivation, even as little as one night, reduces cognitive function (e.g., concentration and memory). Longer term deprivation reduces muscle power, strength and speed, reaction times, cardiovascular



performance and endurance. Inadequate sleep also has a negative impact on emotional stability, motivation and feelings of stress, while increasing the perception of pain and lowering performance levels in athletes and performing artists. However, research is now producing effective, low-cost remedies.

## Solutions for sleep disturbances and insomnia

### A. Cognitive Behaviour Therapy-Insomnia (known as CBTI, CBTi, CBT-I or CBT-I)

Extensive research shows that Cognitive Behaviour Therapy is the most effective treatment for sleep disturbances and insomnia – as effective as medication in the short term but with continued beneficial effects in the longer term. CBTI training may include stimulus control, sleep restriction, relaxation training and biofeedback, cognitive control and/or individualised sleep hygiene. You can attend CBTI sessions individually or in a group. However, safe, high quality CBTI training is also delivered through the Internet. Many of these are PDF or MP3 based, most include sleep diaries, and some include personal email contact with a therapist. See the websites on page 3.

### B. Sleep Hygiene

Sleep hygiene has long been the traditional first-step treatment for sleep problems. Current research suggests that different elements of sleep hygiene are effective for different individuals, so the focus should be on finding which help improve your sleep. The general sleep hygiene guidelines for performers are:

1. Schedule enough sleep (usually 7-10 hours) to ensure you wake refreshed and ready for the day ahead
2. Maintain consistent times for going to sleep and waking up
3. Relax before going to bed (e.g. possibly with a warm bath or light reading).
4. Maintain the room temperature around 19-21°C
5. Make sure your bed is comfortable and your bed-clothes will not overheat you
6. Sleep in a dark, quiet environment.

Although a performer's life can present its own challenges to healthy sleep routines, you do have some control over the following additional factors that can interfere with good sleep.

1. Jetlag: Reset your body clock by spending time outside during daylight hours
2. Napping: Avoid napping during the 8 hours before going to bed
3. Stimulants: Avoid caffeine, nicotine and alcohol before going to bed
4. Light: Blue light is a component of daylight and many artificial light sources. Exposure to blue light signals your brain that it is daytime and you should be awake. Set TV and electronic device displays so they automatically switch to a blue light filter each evening. If your device does not have a blue light filter option such as "Night Shift", "Night Mode" or "Night Light", a variety of free apps for all devices are available online. Light globes with blue light filters include Phillips Warm White (3000K) range.
5. TV and electronic devices (including phones, computer games): Turn these off 30 minutes before going to bed
6. Mental readiness: Avoid thought-provoking conversations and exciting novels before bed-time.

### C. Medication

In some cases, prescribed medication can offer short term assistance with sleep problems. However, research shows that neither short-term nor medium-term (up to 6 months) medication leads to long-term resolution of sleep problems. On the other hand, risks of continued medication include tolerance, dependence, residual daytime effects, cognitive and psychomotor impairment, withdrawal symptoms, and interaction with other substances. The role of over-the-counter medications is seen as limited.

If the above information does not help you reduce your insomnia, your doctor may be able to diagnose and treat any underlying health issues. Your mood, your physical condition and your performance will show the benefit.



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## Further information and sleep programs

Brain basics: Understanding sleep. <https://www.ninds.nih.gov/Disorders/Patient-Caregiver-Education/Understanding-Sleep>

What is sleep and why do we do it? <https://www.sleepassociation.org/about-sleep/>

Insomnia and CBT-I information: [www.sleepmattersperth.com/blog/what-is-the-gold-standard-treatment-for-insomnia](http://www.sleepmattersperth.com/blog/what-is-the-gold-standard-treatment-for-insomnia); <http://www.sleepfoundation.org/sleep-news/cognitive-behavioral-therapy-insomnia>

Comparison of a few online CBT-i programs: <http://www.nosleeplessnights.com/cognitive-behavior-therapy-for-insomnia/>

SHUTi program: <https://app.shuti.me/>: A well-recommended US-based online program. It recommends a medical evaluation to identify any allied health factors before starting the SHUTi program.

CBT for Insomnia - [www.cbtforinsomnia.com](http://www.cbtforinsomnia.com): US online program, reasonable cost, based on Harvard Medical School research

Sleepio - <http://www.sleepio.com/>: Well-researched, comprehensive UK-based online program. PDF and MP3 formats.

This Way Up: <https://thiswayup.org.au/how-we-can-help/courses/managing-insomnia/>: Australian free online CBT course.

Australasian Sleep Association: [www.sleep.org.au](http://www.sleep.org.au).

Version October 2018. Contributors: Clifton Chan, Janet Karin, Camilla Tafra, Paul Duff, Shona Halson

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