

# SLEEP YOUR WAY TO



Winning on the water is not just about the rowing. Maintaining a beneficial lifestyle is equally important. In a new series, the GB Rowing Team physiologists will be giving advice on how to maximise your training by being kind to your body

BY SARAH HARDMAN

**A**s a rower in the midst of heavy training it's important to take stock of your recovery. One of the most important recovery strategies is your sleep time, a valuable resource for wellbeing in the mind and body. Sleep plays an important part in the body's biological and physiological processes for rest, recovery and adaptation.

In elite athletes, sleep and recovery between training bouts are paramount for optimising performance in both training and competition. Therefore a correct sleep strategy encompassing all aspects of sleep hygiene is important. This means considering all the behavioural and environmental factors that precede sleep and may interfere with sleep.

Sleep-wake cycles – which typically last 90 minutes – are governed by the body's circadian rhythms (your 'body clock'). Their disruption can have consequences for how you feel and behave – and subsequently your performance in competition and training.

Researchers know that athletes' sleep patterns can be disrupted by competition demands, schedules, and logistical and environmental stresses. Therefore having an effective sleep strategy at home is no use if you don't adopt the same practices when away at a training camp or a regatta.

While the quality of your sleep may vary from time to time, if it becomes inadequate then it is important to consider the reasons why as this can affect your immune system. Experiencing poor sleep can affect your body's ability to combat

illness, which will already be compromised by a demanding rowing training programme.

Poor sleep can also be detrimental as it is a slow, additive process. Sleep debt is accumulated so the after-effects might not be immediately apparent. Symptoms of poor sleep and accumulated sleep debt are an increase in sleepiness and a negative mood. This results in the following effects on performance:

## Decreases

- ↓ Memory – down 20%
- ↓ Reaction time – down 25%
- ↓ Communication – down 30%
- ↓ Judgement / decision making – down 50%
- ↓ Spontaneity
- ↓ Attention and focus
- ↓ Ability to deal with anything new
- ↓ Physical & mental performance

## Increases

- ↑ Lethargy and apathy – up 50%
- ↑ Attention lapses / micro sleeps – up 50%
- ↑ Forgetfulness
- ↑ Stilted speech
- ↑ Personality changes

In short, you need to ensure that your strategies for sleep-time are well practised, rehearsed and optimal. This includes your sleep system (bed, pillow mattress, linen), sleep environment (bedroom) and your strategy for falling asleep – from the moment you arrive home in the evening to actually going to bed later in the evening. All are paramount to successful performances on the water and training in general.

So what can you do to prevent poor sleep from happening? Best practice is to firstly take stock of



Rowing o'clock!

your night-time sleep. Chances are that, unless you've had a diagnosed clinical sleep disorder, you've never analysed your sleep.

Good questions to ask yourself are:

- Can you get to sleep at night?
- Do you struggle to wake up and get up in the morning before training?
- Are you asleep for long enough during the night?

If you can relate to any of the questions above, then the table opposite will help you make some adjustments to your strategy to sleep which you can adopt both at home and when away at training camps or regattas. The table offers some hints for developing a good sleep strategy.

## Travel tips

Good sleep strategies don't just apply to when you are at home. When you go away it's just as important to maintain your sleep practice. Being away from home can disrupt your sleep but if you stick to the strategies in the table and include some of the tips below, you should be okay.

1. Have a planned sleep schedule / sleep strategy.
2. If you are sharing a room, ensure you discuss with your room-mate your optimal strategies to sleep – and accommodate theirs too.

## Keywords

- **Sleep hygiene** – all behavioural and environmental factors that follow sleep and that may interfere with sleep.
- **Sleep environment** – the conditions in which you sleep: e.g. bedroom, temperature, amount of light
- **Sleep system** – your bed, mattress, duvet, linen and pillow.
- **Sleep cycle** – the body's cycle of deep and non-deep sleep. Typically lasts 90 minutes per cycle.



Do you get enough sleep during the night?

# THE TOP!

“In elite athletes, sleep and recovery between training bouts are paramount for optimising performance in both training and competition”

## Sarah Hardman

Sarah Hardman is Southern Lead Physiologist at the English Institute of Sport (EIS). After qualifying with her MSc in Exercise Physiology, Sarah spent seven years at the Welsh Institute of Sport working with Olympic and Paralympic Sports. She provided physiological support at the Commonwealth Games 2002, 2006 and to GB Badminton for Athens 2004. After a stint working with athletics, she moved to work with British Rowing at the EIS in January 2007 and is now the EIS Physiology Southern Lead. As well as service delivery, Sarah manages the staff and resources in the physiology facility at Bisham Abbey, including the environmental chamber. She has a specialist interest in sleep physiology and elite performance.

3. Prepare personal comfort items: eye-pads / earplugs / pillows...
4. Reduce stimuli: switch off mobiles etc before sleep!

### Daytime sleep

Daytime napping can be a very effective way of regenerating for the stress of more training. It is best to nap in the afternoon lull, ideally falling outside of the deep sleep phase in the usual 90-minute sleep cycle. This means sleeping for either 30 minutes or 90 minutes as this is when you will be exiting a non-deep sleep phase in your cycle as you wake up. If possible you should try and establish a routine with daytime napping so that you wake naturally once you've stuck to the routine for long enough.

### Going forward

In assessing what works for you it's best to try one new strategy at a time, rather than many, so you understand what is ideal for you. Different strategies may work at home or away and for different stages of the season.

Maintaining good habits throughout the season will help your performances on the water and in training. Combined with other recovery strategies – for example, nutrition – enjoying good sleep should help you develop as a rower.

## Have you got an effective sleep strategy?

YES! Good sleep	NO! Poor sleep
<ul style="list-style-type: none"> <li>• Maintain good practices.</li> <li>• Sleep hygiene – ‘all behavioural and environmental factors that precede sleep and may interfere with sleep’.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop an effective ‘sleep strategy’.</li> <li>• Develop a regular pre-sleep routine including good ‘sleep hygiene’ and good sleep habits.</li> <li>• Have a regular bed time.</li> <li>• Keep sleep time protected.</li> </ul>
	<ul style="list-style-type: none"> <li>• Good nutrition (avoid going to bed hungry, but don't eat or drink heavily before going to bed).</li> <li>• Some people may find a large meal within two hours of bedtime may affect their sleep.</li> <li>• Avoid caffeine and alcohol for four to six hours before bedtime.</li> </ul>
	<ul style="list-style-type: none"> <li>• Ensure an optimum sleep environment / system</li> <li>• Sleep in a dark (sleep mask can help), quiet room (ear plugs can help) at a cool temperature.</li> <li>• Bed + Room = dark, cool and comfortable.</li> <li>• No TV / DVD / PlayStation / Xbox/ PC etc in the bedroom. Turn mobile phones off.</li> <li>• Do not attempt to nap early in the evening. The forbidden zone for sleep is 1 to 3 hours before bedtime.</li> <li>• Only go to bed when you are sleepy. If you cannot fall asleep within 20-30 minutes, get out of bed and do a quiet activity elsewhere and then return to bed.</li> <li>• Keep a regular sleep and wake time. Try to adhere to this every day.</li> <li>• Do not exercise within two hours of bedtime.</li> </ul>
	<ul style="list-style-type: none"> <li>• Have a wind-down ritual to help promote more relaxed sleep – e.g. relaxation techniques; reading / audio books, TV (not in bedroom), a warm bath, progressive muscular relaxation, diaphragmatic breathing, soft music, reading 30 minutes prior to bedtime, dim lights, relaxation exercises...</li> <li>• Write down any thoughts that keep popping into your head or things you are worrying about in a notebook kept next to your bed and deal with them in the morning.</li> <li>• Remind yourself that sleep will come naturally, simply lying there is giving your body a chance to rest and recover: lack of sleep is not as damaging as you might think, as long as your body is getting the rest it needs.</li> <li>• Focus on the relaxation.</li> </ul>

It may be quite hard at first to implement some of these behaviours, but it is important to stick with it and you will begin to see the benefits. Remember that habits are as hard to form as they are to break, so put each hint into practice for at least 10 consecutive nights before discounting it. If you are still experiencing problems seek advice from a GP.