



## The Power of Restorative Sleep

You're doing all the right things for peak physical performance – working out, eating plenty of protein and complex carbs, and taking supplements. But still you're having a hard time moving beyond that plateau in your training.

What's the fix? Like many people these days, you may be missing out on an essential piece of the performance puzzle – restorative sleep.

### Sleep Deprivation and Health

Research shows that the average American sleeps only about 6.9 hours a night rather than the 8.1 hours most experts say we need—a figure that has declined steadily in direct correlation with our transformation to a 24-hour society. That is to say, as companies increasingly expand their hours of business and various entertainment venues are available around the clock, hectic work schedules and social lives add up to chronic sleep deprivation for many. But just because you're able to deal with fewer zzz's doesn't mean you can get away without paying the consequences for this loss, says Thomas Roth, PhD, Director of Research and Chief of Sleep Medicine at Henry Ford Hospital Sleep Disorders and Research Center in Detroit. "Americans have learned to sleep less," he explains, "but just as overeating can lead to obesity, lack of sleep can lead to health problems, too."

A night or two of minimal sleep may result in only minor troubles such as inattention or lack of productivity. But long-term sleep loss can have a huge impact upon your health. "You name the body function and sleep is a part of it," says Herbert Ross, DC, author of "Definitive Guide to Sleep Disorders: 7 Smart Ways to Help You Get a Good Night's Rest." Research has linked lack of sleep to weight gain, diabetes, high blood pressure, heart problems. Studies show quality sleep has a positive effect on health and athletic performance.

By Linda Hepler, BSN, RN

### Are You Getting Enough Sleep?

According to Dr. Thomas Roth, if you regularly have any of the following symptoms, you're probably not getting sufficient sleep:

- Trouble waking up
- A need for caffeine in order to get going in the morning
- Feeling drowsy during the day
- Needing to sleep in on weekends to "catch up" on sleep

A more extensive sleep test, says Roth, is the Epworth sleepiness scale. You can take this sleep test by logging on to:

[www.stanford.edu/~dement/epworth.html](http://www.stanford.edu/~dement/epworth.html).

## Athletic Performance Enhanced by Sleep

And while there are no large studies to support the link between sleep and athletic performance, several small studies have demonstrated that good sleep is crucial for both performance and recovery. One recent study of Stanford University swim team members found that those who got extra sleep over an extended period of time swam faster, reacted quicker, improved their turn times and increased their kick strokes. “These results begin to elucidate the importance of sleep on athletic performance and, more specifically, how sleep is a significant factor in achieving peak athletic performance,” says lead author Cheri Mah of the Stanford Sleep Disorders Clinic and Research Laboratory.

Getting enough sleep to improve performance involves more than staying in bed for 8 hours, though. If you’ve ever gotten up in the morning and still felt sleepy – despite adequate hours – it may be because you’re not getting enough of the right kind of sleep. A good restorative rest involves cycles of light to very deep sleep stages, which can be fragmented by things such as too much food or alcohol, exercising too close to bedtime, a room that’s too hot, heartburn, worries, a worn out mattress, or even a sleep disorder.

### Tips for Better Sleep

The good news, claims Ross, is that in most cases, there are things you can do to enhance your chances of getting a good night’s rest. “The body is very trainable,” he says. Here are some tips for better sleep:

Establish a regular bedtime and wakeup time, even on weekends: Your body has an internal clock that works to balance time spent asleep and awake. This can be thrown off by changing your regular routine. Use your bedroom only for sleep and sex: Using the bedroom to finish up that work report or catch up on your favorite TV series weakens the association between your bedroom and sleep.

Keep your bedroom dark, cool and quiet: These conditions promote sleep. Check your mattress and pillows too; they should be comfortable and supportive.

Avoid caffeine, nicotine or alcohol late at night: Caffeine and nicotine are stimulants and can cause problems falling asleep. Alcohol sedates you so that you can get to sleep, but it interferes with deep sleep stages, resulting in a poor quality of rest.

Finish eating several hours before bedtime: A large or heavy meal too close to bedtime can cause discomfort or even heartburn.

Avoid working out in the late evening: Lower body temperature is associated with the onset of sleep. Workouts are great for helping you to become tired enough for sleep, but if done too close to bedtime, your body temperature remains

elevated, which may delay sleep.

Take naps if drowsy, but no more than 20-30 minutes: Long naps may make it more difficult to fall asleep at bedtime. Write down your worries if they're keeping you awake: Putting your troubles down on paper often helps to "shelve" them so that you can ease your mind to sleep. Make sleep a part of your training regimen: Get an adequate amount of sleep each night and extend your sleep time for several weeks before a competition.

If despite all of your efforts, lack of sleep is interfering with your life – or performance – see a doctor for help. He may rescribe a study in a sleep lab, done while you're sleeping. This study records brain activity, eye movement, oxygen and carbon dioxide blood levels, heart rate and rhythm, breathing rate and rhythm, flow of air through your mouth and nose, body muscle movements, and snoring. "A sleep study is like a physical examination at night," says Roth. Results of the sleep study are used to determine if you have one of many types of sleep disorders that can interfere with sleep. And if so, there are lots of effective treatments available.

The bottom line is that one good night's sleep – or even many – may not lead to a record-breaking performance. But over time, good sleep habits can increase your cognitive function, mood and reaction time – all of which helps with vitality, focus, and concentration – as well as confidence. Simply put: A good night's sleep allows you to do your personal best.