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Make Your Life Better: Get Horizontal

Sleep expert Rowan Minnion suggests getting more sleep could pay off in PRs. Emily Beers reports.

By Emily Beers

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When it comes to getting to bed on time and staying in dreamland long enough each night, it seems many of us suffer from retrospective bias.

Retrospective what?

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Retrospective bias is a term used in psychology to explain the phenomenon that describes why people tend to remember the past differently than it actually played out, often by romanticizing it into something it wasn't.

It might explain why people continue to booze hard: they forget how bad a hangover feels. And it could be the reason the elderly often refer to the "good" old days.

Right, the "good old days"—when everyone died of tuberculosis.

Retrospective bias is probably also the reason people continue to order sweet-and-sour pork.

In the case of sleep, we often forget how lousy we feel when we don't get enough. So our retrospective bias keeps us up at night staring at computer screens and TVs, getting second and third winds when our bodies should be sleeping. All of a sudden it's 2 a.m. and the chances of getting six—let alone eight or nine hours of sleep—are slim to none.

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But if we drill it into our minds that proper sleep does more important things than just make us feel refreshed in the morning, maybe we'd make it a bigger priority.

Much of the science of sleep is still unknown, but there are emerging theories that connect good sleep not only to overall health but also to improved athletic performance.

Here's what you need to know about sleep.

Rowan Minnion: Sleep Expert

Rowan Minnion is a sleep expert. And not one of those poser experts, like the salesman trying to sell you a pillow-top mattress. Minnion is an exercise physiologist who studied at both the University of Glasgow and Iowa State University. Upon graduation, he ran the sleep lab at Imperial College in London, England, where he worked as a research scientist.



Rowan Minnion, sleep expert.

Minnion explained that the science of sleep is complicated. "Sleep is a big mystery to most," he said.

Despite the unknowns, research shows there's an obvious connection between sleep and physical recovery. Rowan believes this mostly has to do with hormonal changes that occur in your body during the night. Three hormones Minnion said are especially connected with sleep are growth hormone, leptin and the ever-dreaded cortisol.

Sleep and Growth Hormone

Growth hormone aids in bone and muscle recovery. Without it, your body just doesn't repair as well.

So what does this have to do with sleep?

Minnion explained: "Growth hormone is released when you sleep. Fifty to 60 percent of the growth hormone released by your body is released at night when you're asleep. And most of the growth hormone released happens in the first half of the night."

This is, of course, particularly important for CrossFit athletes, who are constantly working to repair the muscles they damaged during training. And if improved recovery isn't a big enough sell to a CrossFitter, there's a second reason you want your body to be releasing adequate amounts of growth hormone: it stimulates the release of triglycerides from fat cells.

"In other words, we use more energy from fat if we are getting adequate growth hormone," Minnion said.

Courtesy of Rowan Minnion

Sleep and Leptin

Let's say you eat your last meal of the day at 7 p.m. and then your first meal the next morning at 7 a.m. That's 12 hours without food—a long time to go without eating. So why is it that most of us don't wake up at 2 a.m. desperate for a feast?

The reason is because of a hormone called leptin. Leptin does a couple of important things. For one, when you're asleep at night, your fat cells repress your appetite by releasing leptin. Two, leptin regulates insulin.

"So if you don't sleep properly, you don't release leptin, and it messes with your cravings and your diet," Minnion said. "Often people who don't sleep well will wake up at 1 a.m. or 2 a.m. and they're hungry—their body is telling them to eat," he said.

Minnion suspects that this could be one reason there's such a big connection between poor sleeping habits and obesity.

"In the long term, people who don't sleep well enough put on a lot of weight," he said.

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He added: "Cravings are the biggest risk in having a good diet. If we didn't have cravings, it would be much easier to maintain a healthy diet. And those cravings are more frequent in people who don't get good leptin release during the night."

Sleep and Cortisol

Unlike growth hormone and leptin, we don't want huge amounts of cortisol in our bodies.

"Cortisol is seriously bad for our system; we're only meant to have small doses of it during an adrenaline fight-or-flight response," Minnion said.

Two things that raise cortisol levels are stress and overtraining. And one thing that reduces cortisol levels is sleep.

**"Good sleep is basically a way
of reducing cortisol level."**

—Rowan Minnion

"Good sleep is basically a way of reducing cortisol levels. Sleep resets your levels, especially if you're juggling a stressful job or if you're an athlete and you're flirting with the overtraining line," Minnion said.

And what happens if your cortisol levels get chronically high?

"Cortisol is the worst thing to have in your body in the long term. It stops you from using the energy from food properly, and it causes you to put on weight and break down muscle tissue," he said.

Sleep and Athletic Performance

Minnion insists that getting proper sleep, and lots of it, will improve athletic performance. And he's not the only one who believes this.

The Stanford School of Medicine published a story in 2011 called [Snooze you win? It's true for achieving hoop dreams, says study](#). It was based on research done by Cheri Mah, a researcher at the Stanford Sleep Disorders Clinic and Research Laboratory. According to Mah's research, college-level basketball players were able to improve their on-court performance by increasing the number of hours they slept.

Many general studies in the past have shown that sleep has an impact on cognitive function, mood and physical performance, but Mah's research was one of just a few studies that looked specifically at the effect of sleep on high-level athletes.

"Intuitively many players and coaches know that rest and sleep are important, but it is often the first to be sacrificed," Mah said in the story.



“How can I get a Helen PR if I don’t sleep? But I can’t sleep because I’m obsessed with my Helen PR.”

Mah’s research, on the other hand, went beyond simply telling athletes to “get a good night’s sleep.” She worked with 11 healthy male basketball players, essentially getting them to sleep for 10 hours each night for five to seven weeks. If they couldn’t get 10 hours of sleep during the night, they were allowed to nap in order to reach the required amount of sleep.

“I think the most important thing is for people to get into a routine. Going to sleep and waking up at the same time every day is the most important thing.”

—Rowan Minnion

When the results were examined, players ran faster on their suicide sprints and their shooting percentage increased significantly. On top of this, their levels of fatigue and daytime sleepiness decreased.

In the story, Mah called sleep an “unrecognized, but likely critical factor in reaching peak performance.”

Minnion agrees with Mah. An as an interesting addition, he noted that according to the ESPN.com article [Sleep tracking brings new info to athletes](#), professional athletes like tennis star Roger Federer, basketball star LeBron James and sprint king Usain Bolt all sleep for 10 hours each night—or more.

And even if your schedule doesn’t accommodate 10 hours of sleep each night, Minnion said all is not lost.

“I think the most important thing is for people to get into a routine. If you make sleep a priority, you’ll probably be glad you did.”

He added, “It’s the easiest way to up your game.”



About the Author

*Emily Beers is a **CrossFit Journal** staff writer and editor who finished a master’s degree in journalism at the University of Western Ontario in the spring of 2009. Upon graduation, she worked as a sportswriter at the 2010 Vancouver Winter Olympic Games, where she covered figure skating and short-track speed skating. Currently, she hosts **WOD HOG**, a not-always-PG publication of the CrossFit Vancouver School of Fitness. She ruptured her Achilles tendon in December 2010 and served as the Canada West Regional Media Director while recovering from surgery. Beers also competed in the 2011 Reebok CrossFit Games on CrossFit Vancouver’s team. She finished third at the Canada West Regional in 2012.*