

Twist Blog Post

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Title: Performance & Recovery: Sleep is When the Magic Happens

Teaser: Did You Know: A lack of sleep decreases your appetite and suppresses hormones? Learn more...

Content:

Through the summer we have been discussing various ways to maximize the effects of training and recovery with our weekly Twist Tutorials for each of our High Performance groups. #MoveLiftLearn

The hard hours you are putting into training on and off the ice each week are designed to maximize your output and performance not only through the summer, but even more importantly to send you into the season operating at optimal levels.

Did You Know: A lack of sleep decreases your appetite and suppresses hormones?

Importance of Sleep on Performance & Recovery

Sleep is the time when your body repairs itself, if we don't get enough sleep, we don't perform well.

We all know that sleep is important and that we need it, but do we know why?

The effect of sleep on athletic performance has become a topic of great interest due to the increase in scientific evidence that has shown a relationship between critical sleep factors (sleep length, sleep quality & sleep phase) and human performance. For the purpose of this discussion we will be focusing on length & quality of sleep.

2 hormones control appetite, ghrelin (induces hunger) and leptin (suppresses it). When you are sleep deprived your body produces more leptin and less ghrelin which typically leads to not eating enough one day and too much the next. It also causes cravings for starchy carbs and sugars vs. high quality whole foods. Inadequate sleep also leads to increased levels of cortisol (a stress hormone) that causes the body to conserve energy and hold onto fat during waking hours.

Sleep Length: The lack of sleep or *cumulative sleep debt* is associated with changes in mood, concentration, motivation, endurance and recovery that have a negative effect on performance and put the athlete at risk for overtraining/under-recovery.

Elite athletes should be looking to get **between 9-10 hours** of sleep each night **plus a 30 minute nap (You're Welcome!)**. The best NAP results are generally seen between the hours of 2-4pm. It is important that each athlete determines the amount of sleep they need per week. (eg: 8 hours/night = 56 hours per week) You should be looking to get between 56-70 hours of sleep each week, including your naps.

Sleep Quality: Typical factors that affect sleep quality are sleep disorders, environmental disturbance, and mood disorders. Normal sleepers usually fall asleep within 20-30 minutes of turning off the light and sleep through the night with brief awakenings and wake spontaneously in the morning without an alarm feeling refreshed

within an hour of waking up, ready to **GET BETTER.**

Sleep disorders are common, and treatable, but often remain un-diagnosed and untreated. Unrecognized sleep disorders affect personal health and may lead to chronic sleep loss, which in turn, can increase the risk of poor performance and injuries. The most common sleep disorders that can affect athletic performance include: insomnia (can't sleep), obstructive sleep apnea (breathing starts & stops while sleeping) and Parasomnias and sleep movement disorders (Night Terrors, teeth grinding, Restless Leg Syndrome, Periodic Limb Movement, Sleepwalking/talking etc.).

Where do YOU Sleep?

The one aspect of sleep disturbance that is probably the most important and common modifiable factor that can affect the quality of an athlete's sleep is environmental.

A few pre-sleep routines that can really benefit the quality of your sleep are:

Downtime before bedtime

Low light exposure

Relaxing activities (no computer, video games or smart phones)

Bedroom should be quiet, pitch dark and comfortable temperature and humidity

Do not eat right before bed as the digestive system does not work efficiently when the body shuts down for sleep

What does sleep deprivation do to your game?

Decreased energy: Sleep deprivation reduces your body's ability to store glycogen – energy that you need during endurance events.

Worse decision making and reflexes. Studies have shown that athletes who don't get enough sleep are worse at making split-second decisions and less accurate.

Hormone changes. Not getting enough sleep can increase levels of cortisol, a stress hormone that can slow down healing, increase the risk of injuries, and worsen memory.

Decreased levels of growth hormone that helps repair the body.

Getting enough sleep is easier said than done... especially for athletes.

A lot of things can get in the way of sleep for an athlete:

- Travel for away games
- Practices early in the morning or games late in the evening
- Pre-Competitive Stress – the stress that athletes may feel before a competition.
- Life Stress (School, relationships, team culture issues etc.)

4 ways athletes can improve their sleep.

- 1 Get on a regular schedule. Routine is incredibly important. If you can, try to go to bed and get up at the same time every day.
- 2 When you travel, give yourself time to acclimate. When possible, if you are travelling for a game or competition arrive early to give your body time to adjust.
- 3 Avoid sleep medication. Unless doctor prescribed don't take any sleep aids. Over

the counter sleep aids are likely to disturb the quality of your sleep and your performance the next day.

- 4 Reduce alcohol and caffeine. Two or three days before a competition, start cutting back on caffeine and alcohol, you want to avoid anything that could disrupt your sleep.

We often have a tendency to ignore sleep or compromise sleep for other activities and not consider sleep a priority. Athletes have no choice but to make sleep a priority because their competitors do, and it could be the difference between winning and losing or experiencing a career ending injury.

As does every skill, it takes time to develop and establish good habits and routines, and this is of extreme importance during the off-season, pre-season and competitive season. The most important take home message from this is to remember that everything you are doing outside the gym/rink is affecting your goals and outcomes. Make good choices, consider the consequences, and decide where your priorities lie! Remember, if you are not getting better everyday, someone else is.