

# 3 Sleep and Performance Challenges for Northern-Based Athletes and Coaches to Manage

By Brendan Duffy, RPSGT, RST, CCSH, FAAST

Recently, I had the opportunity to explain on the [Fox Weather](#) streaming service why we sometimes feel sleepier in the winter than we do in other seasons.<sup>1</sup> The interview got me thinking about how these same challenges may be faced by college and professional winter sports athletes.

Many athletes and teams are in northern-based cities and towns that experience harsh, cold and long dark nights. The teams and coaches spend most of their scheduled season traveling in these cold, gray weather conditions with limited or reduced sunlight. Occasionally they may play a tournament away in a warm, sunny region, which is a welcome reprieve.

But why? Is it the warm sunlight that impacts them physiologically as well as physically? It is a welcomed reprieve to play in sunny conditions, but a short one for many of these teams. The reality is that their opponents for winter sports, such as basketball or hockey, are mostly other northern-based teams so they often stay within the early, gray, dark and dreary morning environments during the winter seasons.

*What should coaches and trainers look for that may be a unique challenge brought on by the environment?*

We all have heard the expression, "You can't change the weather," but what should college and professional athletes be aware of, and look out for, to manage through the winter season? What should coaches and trainers look for that may be a unique challenge brought on by the environment? Have high school players from southern states even given a thought to how well they will adapt and thrive in a frozen and dark environment if they chose a college in that region?

Let's look at three key areas of concern during the winter season for both college and professional athletes and coaches based in the northern United States.

## Adequate Sunlight

One of the biggest reasons many athletes may experience more tiredness is the absence of sunlight during the winter months due to nights being longer and days shorter. This leads to more of the sleep-inducing hormone melatonin to signal that it is time to wind down and prepare for sleep time. This tired feeling may make it harder for an athlete to complete workouts or practice their sport skills, as well as impact their performance in warmer, sunnier regions.

Athletes often play their games late in the day and sleep in, so an early 4:45 or 5 p.m. sunset seriously limits their chances for getting healthy, natural sunlight during the winter, which can negatively influence focus, workouts, mood and appetite for the players, coaches and trainers. This daily dose of natural sunlight is important for maintaining a consistent and healthy circadian sleep rhythm. Even as few as 20 minutes of sunlight in the morning can make a big difference for your sleep schedule, mood and energy level.

## Diet

With more time spent inside due to the cold weather, athletes may experience more difficulty controlling their weight. Winter is a time where we tend to eat heavier meals in the northern climates as opposed to the lighter "summer salad" fare enjoyed in the warmer months or down south in the warmer climates. With cold and ice outside, and less desire or opportunity to exercise, it's easy to start noticing your belt tightening during the winter seasons. Add to that the holidays, and we definitely can run afoul of our athletic dietary goals and targets.

Winter is full of comfort foods and sedentary indoor "grounded" times due to the cold and harsh weather. This can be the perfect storm for weight control issues.





This added weight can disrupt breathing and increase players' risk for developing sleep apnea or fragmented sleep due to gastroesophageal reflux disease (GERD) or heartburn. Team trainers and nutritionists need to educate and monitor athletes' caloric intake and choices even more carefully in the winter season due to the aforementioned risks.

## Seasonal Affective Disorder

Seasonal affective disorder (SAD) is a type of depression that occurs during similar times of the year (i.e., winter months) and is characterized by increased feelings of sadness, eating and sleeping.<sup>2</sup> SAD has been found to occur in some student athletes who move away from southern states to places with limited sunlight hours and colder weather (i.e., northern latitudes), predisposing them to the disorder.<sup>3</sup>

Coaches should pay special attention to not only the physical condition and readiness of these "transplanted" southern athletes, but more importantly the mental health of these athletes. Their mood and energy levels may be severely dampened, and they may have sleep issues as part of that seasonal emotional challenge. This may be especially true for freshman in their first season. They already have many stressors to handle, such as being away from home, difficult classes, practice schedules, and new friends and coaches. The dark and cold nights may be another challenge.

Players with SAD should be referred to sleep specialists who can assist them with coping mechanisms, rule out other sleep

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issues and provide recommendations for supplemental light sources. Some helpful light sources are lux light boxes or personal lux eyewear glasses that a player can use in the morning to assist in resetting their circadian internal clock.

With a little knowledge and some preparation, coaches, trainers and players can rise to the challenge of a long winter season. If they make the necessary adjustments, just as they would for any other formidable opponent, they just may defeat the winter blues and enjoy a wonderful winter wonderland season! 🌙



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## References

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