

Sleep and Nutrition Interactions: Implications for Athletes

Reference: Doherty, R., Madigan, S., Warrington, G. and Ellis, J., 2019.
Sleep and nutrition interactions: implications for athletes. *Nutrients*, 11(4), p.822.



Post-exercise recovery is vital for all athletes



Adequate sleep is crucial



Sleep is a crucial part of recovery for athletes

LINKS WITH NUTRITION

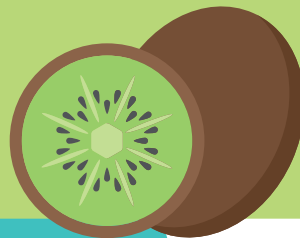
Consumption of **carbohydrates**. 130g at least 45 min before bedtime improves sleep. High GI carbohydrate in the evening meal promotes sleep

Protein, particularly dairy sources (with casein protein) may increase length of sleep and the overall intake of protein may improve sleep quality

Drinking **alcohol** has been associated with poorer sleep quality and quantity, reduced REM sleep and increased sleep disturbance in the second half of the night

Caffeine consumption can lead to poor sleep which, in turn, can lead to increased caffeine consumption

Timing and quantity of meals is important as large portions and/or meals later in the evening can negatively impact sleep potentially due to digestion



Consuming two **kiwifruit** one hour before bedtime improves sleep duration, time it takes to fall asleep and reduces waking time during the night

Tryptophan is a hormone which is crucial for sleep

Consumption of tryptophan containing foods has been shown to improve sleep e.g. milk, turkey, chicken, fish, eggs, pumpkin seeds, beans, peanuts and leafy green vegetables

