

Nutrition for Concussion

Concussion is a serious condition and there is an increasing body of evidence suggesting that athletes who have concussion should follow certain nutritional patterns that can aid recovery. These include:

General Nutrition

- The medical team should consult with a registered dietitian who holds a specialty in sports dietetics.
- Nutrition planning should be initiated immediately following the concussion.
- Food should generally not be restricted.
- Eating something as early as possible following the concussion is desirable.
- Concussed athletes with nausea should be provided nonspicy and easy-to-digest low-fat foods, such as bananas, rice, and wheat toast.
- Protein intake should remain normal and should not be restricted.
- Early concussion is associated with a number of conditions that may negatively affect food intake, including sleep disorder, irritability, apathy, fatigue, nausea, easy distraction, disorientation, confusion, or poor concentration.

Dietary Modifications

- There is evidence that a slightly increased consumption of omega-3 fatty acids may aid recovery. These fatty acids may reduce inflammation, thereby improving blood flow to the area of injury.
- The best food sources of omega-3 fatty acids include fish and shellfish, which contain both ALA and EPA. However, other foods that include nuts and seeds also contain omega-3 fatty acids. Red meats are not considered a good source of omega-3 fatty acids.
- Studies suggest that both vitamins D and E intakes should be slightly higher than normal. If these cannot be provided via normal eating, supplemental intake should be considered.

Eating Frequency

- Concussed athletes should try to consume a well-balanced diet in smaller than usual but more frequent meals so as to provide a chronic nutrient and energy availability to enable improved tissue repair.
- Protein consumption is important, but should also be consumed with meals that provide a smaller but more regular level of intake that is well distributed throughout the day. It is better, for instance, to consume 6 meals containing 25 grams of protein/meal rather than 3 meals containing 50 grams of protein/meal.

SOURCES: B.P. Lucke-Wold et al., "Supplements, Nutrition, and Alternative Therapies for the Treatment of Traumatic Brain Injury," *Journal of Nutritional Neuroscience* 21, no. 2 (2018): 79-91; K. Casazza and E. Swanson, "Nutrition as Medicine to Improve Outcomes in Adolescents Sustaining a Sports-Related Concussion," *Exploratory Research and Hypothesis in Medicine* 2, no. 4 (2017): 122; M.D. Lewis, "Concussions, Traumatic Brain Injury, and the Innovative Use of Omega-3s," *Journal of the American College of Nutrition* 35, no. 5 (2016): 469-475.

From D. Benardot, *Advanced Sports Nutrition*, 3rd ed. (Champaign, IL: Human Kinetics, 2021).