Evidence-Based **Learning Activities**

The following activities encourage you to explore the research evidence in more detail and consider how scientific findings are interpreted and communicated.

Article one

Naderi A. et al. (2025) Nutritional Strategies to Improve Post-exercise Recovery and Subsequent Exercise Performance: A Narrative Review. *Sports Med*, 55(7):1559-1577. doi: 10.1007/s40279-025-02213-6.

1. What effects are observed when caffeine and carbohydrates are co-ingested?
2. Do different types of carbohydrates produce different effects?
3. How might this influence subsequent exercise performance?

Article two

DValiño-Marques A. et al. (2024) Nutritional Ergogenic Aids in Cycling: A Systematic Review. *Nutrients*, 16(11):1768. doi: 10.3390/nu16111768.

1. What specific effects of caffeine supplementation on cycling performance were observed?
2. What evidence does the review report for combined caffeine and creatine supplementation, and how strong is that evidence?
3. If so, what outcomes were reported?

Article three

Wu S.H. et al. (2024) Caffeine supplementation improves the cognitive abilities and shooting performance of elite e-sports players: a crossover trial. *Sci Rep*, 14(1):2074. doi: 10.1038/s41598-024-52599-y.

1. What effects did caffeine supplementation have on performance?
2. How does the sample size affect confidence in the study findings?
3. What mechanisms have been proposed to explain the observed effects?
4. What aspects of elite e-sports performance can be applied to other populations and forms of physical sports performance, and why?