



RESEARCH TO
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REPLACE, RESTORE, REVIVE WITH NUTRITION

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Nutrition plays a key role in the Replace, Restore and Revive aspects of recovery after exercise. The quantity and timing of intake of nutrients can be clearly shown to influence the processes of refuelling, rehydration, and protein synthesis for repair and adaptation. Nutrition strategies which address inflammatory and oxidative responses to exercise, or help to minimise the risk of illness and injury are less well documented. Recovery between exercise sessions may have two separate and sometimes divergent goals: 1. addressing body losses/disturbances to homeostasis caused by the first session to restore performance levels for the next and 2. maximising the adaptive responses to specific exercise stresses to gradually enhance exercise capacity and performance. When restoration is the goal, there may be benefits to achieving rapid intake of key nutrients. Indeed, in some cases, there is little effective recovery until nutrients are supplied, while in others, the stimulus for recovery is strongest in the period immediately after exercise. However, in other cases, when rapid restoration is not a priority, there may be practical advantages in taking a less aggressive approach to post-exercise nutrition. Indeed, there is growing interest in scenarios in which the deliberate withholding of nutrition support after exercise may enhance the adaptive response to the exercise session. There have been three distinct “eras” of recovery nutrition within the evolution of the science and practice of sports nutrition. In the first era, pre-exercise eating overshadowed the interest in recovery nutrition. This approach was replaced by the era of the “Recovery Industry”, in which aggressive, but often One-size-fits-all strategies to post exercise eating were promoted. The current era now recognises that the optimal approach to recovery nutrition is individual to each session and each athlete. This contemporary approach identifies strategies that promote glycogen resynthesis, restoration of fluid balance and protein synthesis following different types of exercise stimuli, noting the types of scenarios in which a pro-active approach to recovery eating is warranted and the situations in which it unnecessary or potentially beneficial to deliberately withhold. Each athlete should use a cost-benefit analysis of the different approaches to recovery nutrition following specific exercise sessions and then periodise different recovery strategies into their training of competition programs.

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Date: Wednesday, 28 March 2018
Time: 11:00am – 12:30pm
Co-Presenters: Dr Jonathan Peake; Prof Aaron Coutts; Prof Louise Burke OAM
Panel Practitioner: Dr Vincent Kelly
Session Chairperson: Dr Shona Halson