

Sport Nutrition Lessons from the Rugby World Cup: England Rugby

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Rugby Union is a high-intensity team sport characterised by repeated high-impact collisions. From a nutritional perspective, the key priorities involve ensuring players maximise lean muscle mass whilst maintaining appropriate body fat for their playing position, ensuring players are optimally fuelled for performance, and given the physical collisions, promote recovery from training and competition. Despite the growing popularity of the sport, rugby specific research is still somewhat limited compared with other team sports such as football. Over the past decade, the team at LJMU have attempted to explore the nutritional demands of elite rugby and then implement research informed nutrition strategies in the professional environment. Such studies have included muscle biopsy work to examine the muscle glycogen requirements, doubly labelled water studies to examine total energy expenditure and metabolomic studies to provide insights into muscle damage and repair. All of these studies have yielded insights which in theory could help to inform applied sport nutrition practice. A key challenge of the sport nutritionist is to take data from research studies and implement this at the coal face within the constraints of professional rugby. These constraints can be heightened during a Rugby World Cup tournament where additional rules and regulations are in place dictated by World Rugby. This presentation will look at 3 such challenges and give first hand insights into how sports nutrition research was implemented during the 2023 Rugby World Cup tournament in France taking into the consideration the dictated constraints of tournament rugby.