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## The nutrition knowledge and weight-making practices of elite and non-elite Irish youth boxers

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Boxing is a combat sport which uses weight categories to ensure equitable fights between opponents<sup>(1)</sup>. To fight in a specific weight category, a boxer's weight must be within the weight range for the category<sup>(2)</sup>. Many weight-making athletes, including boxers, reduce their weight or 'make weight' to allow them fight in an available category or face an opponent who is naturally smaller and weaker than themselves<sup>(1,3)</sup>. Studies among weight-making athletes have reported rapid and potentially hazardous weight loss practices<sup>(3–5)</sup>.

The aim of this study was to ascertain the nutrition knowledge and weight-making practices of Irish youth boxers and to identify what influenced their knowledge and practices.

Male, 17–18 year old, elite boxers ( $n = 8$ ) and sex, age and population sub-group matched non-elite boxers ( $n = 10$ ), those engaged in other sports ( $n = 9$ ) and individuals not involved in any sport ( $n = 7$ ) were interviewed using semi-structured, recorded interviews.

All participants had good knowledge of general nutrition guidelines for healthy eating and for sport. Although those involved in sport had better knowledge of the requirements and functions of dietary protein and carbohydrate, boxers demonstrated poor knowledge about fat, micronutrients, ergogenic aids and dietary recovery strategies after exercise. This knowledge deficit was associated with practices potentially detrimental to athletic performance. All boxers had reduced weight to compete although weight loss techniques were not as extreme or pathogenic as previously reported<sup>(5)</sup>. Differences were evident between elite and non-elite boxers, with elite boxers using dehydration and dietary restriction strategies more often than non-elite boxers who favoured increased exercise and healthy eating to induce weight loss. Coaches and making weight, in the elite group in particular, were described as having the most influence on knowledge and practice.

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### Participant quotations

Good general knowledge of nutrition guidelines	(You need) 'A balance of everything. . . protein and meats, chicken, carbohydrates'
Poor knowledge of specific sports nutrition strategies	'Not much (water) before not much during and a good bit after' (training or exercise)
Common weight reduction methods	'Use sweat gear, three meals a day, I don't eat sweets or fizzy drinks'
Sources of nutrition information	'Coaches and all people who have done it before'

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To optimise the nutritional practices of these young boxers, nutrition information should be provided by a qualified nutrition professional. Coaches educated on nutrition and safe weight-making methods may also positively influence the nutrition knowledge and practices of these Irish youth boxers.

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