

I have been asked to comment on various practices of Tug of War athletes in the run up to major competitions. I do so as a general medical practitioner having had some discussion with Sports nutritionists and Sports Medicine physicians. My comments will be general comments on the pros and cons of these practices.

The Specific activities addressed are:

1. Diet restriction to reduce weight
2. Use of nutritional supplements
3. Fluid restriction to reduce weight
4. Use of sauna to reduce weight

DIET RESTRICTION

Eating less can reduce weight however it stresses the body and starvation leads to the increase of the hormone cortisol which can encourage the body to maintain weight. It also can lead to the loss of muscle mass when the objective should be to lose fat weight.

In general athletes should take a well-balanced diet primarily carbohydrates (up to 60% of energy) fat and protein. It is further recommended that carbohydrates should be mainly from a group regarded as complex carbohydrates e.g. bread, potatoes, pasta, rice and vegetables.

USE OF NUTRITIONAL SUPPLEMENTS

The use of these supplements particularly protein supplements is thought to have the potential to cause kidney damage, osteoporosis and digestive problems especially if used long term. Realistically 500mls of skimmed milk or milk powder daily are an adequate source of protein supplement.

A further problem with supplements is level of regulation of them, with a potential for an athlete to consume a banned substance.

The National Athletic Trainer's Association [based in the US] published a Position statement in 2013 - Evaluation of Dietary Supplements for Performance Nutrition. Several extracts of note:

"Athletes can be vulnerable to the misinformation and risk in terms of safety, legality and efficiency of dietary supplements and should not assume a product is safe simply because it is marketed over the counter."

"Current regulations do not require supplement manufactures to provide evidence of safety."

"Consider proper nutrition and changes in habitual diet first."

"Do not forget to prioritise a healthy diet over dietary supplements to support performance."

FLUID RESTRICTION

Fluid restriction to lose weight leads to dehydration which has a number of serious side effects. These risks are intensified if athletes undertake several days of intense fluid restriction. Dehydration leads to the loss of essential body components (e.g. sodium and potassium). Consequently dehydration can lead to a rise in blood pressure and heart rate. The loss of sodium and potassium can affect the functioning of the heart and potentially lead to sudden death.

USE OF SAUNA TO REDUCE WEIGHT

Intensive use of sauna can lead to dehydration. As mentioned above this can have ill effects on heart functioning. Ultimately this will have negative effects on performance. A good level of hydration is essential for health and wellbeing.

My research has revealed evidence that the use of sauna for weight loss has potential detrimental effects on health and performance. Consequently should be limited and used in moderation. However no evidence was found supporting the idea of banning such practice.

It should be noted that horse racing facilities have removed sauna facilities from their establishments to try and minimise the risky activity of intense sauna use. Equally the sport of boxing has moved to discourage boxers from partaking in this activity.

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