

Table 2 Nutritional Ergogenic aids

Function	Examples
Contain larger amounts of nutrients than would be typically found in everyday foods	Commonly used ergogenic aids include: Creatine Caffeine tablets
Claim to have a direct work enhancing effect on performance	Individual proteins (Amino Acids) Chromium Picolinate Herbal preparations
Sometimes rely on theoretical or anecdotal support rather than sound scientific evidence	Fat burners and lots more...

Dietary supplements are often considered less 'risky' than ergogenic aids in terms of health, doping outcomes and expense. Some products in this category could be considered useful in helping players meet their nutritional goals, for example, sports drinks during training and matches, sports bars and liquid meal replacements to support high

energy requirements. However some dietary supplements e.g. protein powders, vitamins and minerals are often used without any evidence of need, and are often taken to 'rectify' an otherwise poor diet. Excess intake is not beneficial to performance, and could potentially be harmful to the health of young players.

IRFU Guidelines

Dietary education is the key to support good habits for health, growth and performance. Young rugby players need to focus on good, regular eating and drinking practices to support their training and competitive programmes.

Eat2Compete fact sheets give practical nutrition information to help young players eat and drink well to support their performance. These fact sheets can be downloaded from the IRFU website www.IrishRugby.ie/eat2compete

Useful websites

IRB Anti-Doping

www.irbkeeprugbyclean.com

Irish Nutrition and Dietetic Institute

www.indi.ie

Performance Food

www.performancefood.co.uk

Australian Institute of Sport

www.ausport.gov.au/ais/nutrition

Sports Dietitians Australia

www.sportsdietitians.com.au

Iowa State University Sports Nutrition

www.extension.iastate.edu/humansciences/sport-nutrition

Irish Sports Council

www.irishsports council.ie

UK Sport

www.uk sport.gov.uk

World Anti-Doping Agency

www.wada-ama.org

Irish Rugby – Eat 2 Compete

www.irishrugby.ie/eat2compete

Professional contacts

The Sports Nutrition Interest Group (SNIG) is part of the Irish Nutrition and Dietetic Institute, whose members are Dietitians (in both north and south of Ireland) with experience in sports nutrition practice. If you wish to arrange for a player or team of players to see a dietitian, please email your request to the secretary at snigindi@gmail.com

References

American Academy of Paediatrics Committee on Sports Medicine and Fitness. Position on use of performance-enhancing substances. *Paediatrics* 2005; 115: 1103 - 6

American College of Sports Medicine. Roundtable: The physiological and health effects of oral creatine supplementation. *Med. Sci. Sports Exerc.*, 2000;32: 706 - 17

Irish Sports Council: Supplements and Sports Foods Policy. January 2012.

SPORTS SUPPLEMENTS AND THE YOUNG RUGBY PLAYER

GUIDELINES AND RECOMMENDATIONS



IRFU Recommendations

Sports Supplements and the Young Rugby Player

1. Young rugby players should focus on good eating and drinking practices to support optimum performance. Fact sheets to support this are available through the IRFU website www.irishrugby.ie/eat2compete
2. The use of protein supplements should not be recommended by schools, coaches, teachers or others involved in the training of young rugby players.
3. The IRFU strongly advises against the use of nutritional ergogenic aids (Table 2), in particular creatine, in young rugby players under 18 years of age.
4. Young rugby players with medical conditions (for example diabetes, asthma, coeliac disease and nutritional allergies) should receive appropriate medical and nutritional advice to assist their optimum performance.

Background information on Sports Supplements

Dietary supplements, nutritional supplements, ergogenic aids – these are some of the terms used to describe the range of products that collectively form sports supplements. Sports Supplements are manufactured by a large number of companies. The manufacturing process, labelling and marketing of these products is poorly regulated with variable quality control. Unlike medicines, sports supplements are not licenced and therefore regulation about their production is limited. This means that sports supplements may contain ingredients that are not stated on the label, or that the label does not reflect exact quantities of ingredients in the product. The control over claims as to how the product works may also be poor – for example, ‘fat

burners’ may claim to cause ‘dramatic body fat reduction’ and ‘reduce fat storage’ with little or no evidence to support these claims, and no statement as to the possible adverse effects of the product.

Creatine is probably the sports supplement that has received most attention in the last 15 years. Some facts about creatine are:

- It is not illegal in Ireland and is not a banned substance (World Anti-Doping Agency (WADA))
- Performance benefits may occur in some adult athletes
- Its long term safety is unknown, particularly when started from a young age

Are there risks associated with the use of sports supplements in young rugby players?

The risks associated with the use of sports supplements in young people have not been adequately studied to provide a detailed answer to this question. This lack of research on the risk to long term safety of supplement use on young people has led to a recommendation against the use of supplements and ergogenic aids by children and adolescents (American Academy of Paediatrics, 2005), and a recommendation from the American College of Sports Medicine (ACSM , 2000) that creatine should not be used by anyone under 18 years of age. It is on the basis of insufficient data of the real side effects in the young population (<18 years) that expert groups have made statements against the use of creatine in young athletes.

Drug testing

The Irish Sports Council's anti-doping programme is now implemented at Under 18, Under 19 and Under 20 Provincial and National levels. This means that a player who is part of any of these squads is liable to be tested for the presence of banned substances, both in and out of competition.

There is always the possibility that a sports supplement may contain a banned and possibly harmful substance. It may contain a banned substance that is not declared on the label or there may have been cross-contamination during production due to poor quality control. Either way, if the banned substance is found in the test of a player, then the player is responsible for it being there – this is what is called ‘strict liability’ by the WADA code.

There have been a number of high profile examples where an athlete has claimed that the use of a sports supplement was the reason for a positive doping test. One substance that is worth mentioning is **Methylhexaneamine (MHA)**. MHA is a stimulant and it was added to the WADA prohibited list in 2010. The presence of this substance in a drugs test will result in a positive test. Players should learn more about this in the resource section of the IRB's Keep Rugby Clean website www.irbkeeprugbyclean.com

What are the important elements that maximise performance in young rugby players?

It is absolutely clear that successful individual performance in rugby, as in other sports, is related to a number of variables that include:

- talent
- coaching and skill acquisition
- structured training and conditioning
- motivation and dedication
- optimal nutrition
- adequate sleep and recovery

None of these can be replaced by the use of sports supplements. Often the desire to get physically bigger is the reason young players choose to take supplements, which may seem the quick-fix answer for accelerated growth. There is little evidence to condone such practice, as young players will gain size and strength from well planned training and recovery, supported by adequate eating and drinking.

Sports Supplement Classification

Sports supplements can be broadly divided into two main categories:

Dietary Supplements

Nutritional Ergogenic aids

These categories are explained in the tables below.

Table 1 Dietary Supplements	
Function	Examples
Provide nutrients found in everyday foods in a form that may be convenient or practical	Sports bars Sports drinks
May be designed to prevent or treat a nutritional deficiency (under medical supervision)	Multi-vitamins/minerals Specific nutrients e.g. Iron, Calcium
May allow players to meet a specific need in training or competition, if not met by diet	Liquid meal replacements Protein powders Recovery formulae