Advice to athletes on the use of supplements in sport

Information Sheet

POSITION STATEMENT of UK Sport, the British Olympic Association (BOA), the British Paralympic Association (BPA), National Sports Medicine Institute (NSMI), and the Home Country Sports Councils (HCSC)

UK athletes are strongly advised to be extremely cautious about the use of any supplements. No guarantee can be given that any particular supplement, including vitamins and minerals, ergogenic aids, and herbal remedies, is free from prohibited substances as these products are not licensed and are not subject to the same strict manufacturing and labelling requirements as licensed medicines.

Anti-doping rules are based on the principle of strict liability and therefore, supplements are taken at an athlete’s risk and personal responsibility.

Always consult a qualified medical practitioner, accredited sports dietitian and/or a registered nutritionist before taking supplements, and if a vitamin or mineral supplement is recommended, pharmaceutical-grade products may reduce the risk of using a contaminated or poorly labelled product.

What is the difference between a medicine and a supplement?

Athletes should be aware that any product that claims to restore, correct or modify the body’s physiological functions should be licensed as a medicine, according to current legislation. Licensed medicines can be identified by looking for a product licence number on the label, which will look like this: PL0242/0028 (numbers will change with each product). Supplements will not contain a product license (PL) number as they are not licensed medicines.

Additional risks to athletes and sporting bodies

In the absence of an internationally approved quality assurance standard for supplement manufacturing and labelling, athletes and sporting bodies should be cautious of the commercial incentives associated with supplement manufacturers, for example, sponsorship and promotion deals.

Athletes or sporting bodies who accept sponsorship from supplement manufacturers do so at their own risk.

Without an approved quality standard, a guarantee cannot be given about the reliability of the manufacturing or labelling process, despite claims made by some manufacturers.

Advertising that claims to improve muscle growth and assist weight loss are also cause for concern. The Advertising Standards Authority (ASA) Director General reinforced this...
concern in saying: “Many of these advertisements are making ambitious claims about products, but when challenged to produce satisfactory evidence to back up these claims, advertisers are unable to. We are concerned not only that consumers may be losing money, but also that these advertisements can be irresponsible in their approach to weight loss and dieting.”
Nutritional Supplements Information Sheet

Here are answers to some questions that are commonly asked about nutritional supplements.

What are sporting organisations in the UK doing about the problem of contaminated and poorly labelled supplements?

UK Sport, the British Olympic Association, the British Paralympic Association, the National Sports Medicine Institute and the Home Country Sports Councils are committed to supporting athletes in the UK who are committed to competing and winning fairly, and whilst a solution to this problem with contaminated and poorly labelled supplements may not be possible, we will continue working towards achieving a better situation for UK athletes. Our position statement is intended to protect the integrity and reputation of UK athletes by warning them of the risk that supplements may contain prohibited substances that are not listed on the label.

How do I know if I need to take vitamin and mineral supplementation for my health?

For athletes consuming a normal, varied and balanced diet, that meets their energy requirements, there is no evidence that vitamin and mineral supplementation is necessary to enhance health or performance. In fact, excessive ingestion of vitamins and minerals can be dangerous to health. There are some practical situations in which qualified medical practitioners, accredited sports dieticians and registered nutritionists, may recommend specific vitamins or minerals for certain individuals (e.g. if iron stores are low). However, these should be taken with qualified expert advice and only used as directed or prescribed. Caution is needed because evidence has shown that some multi-vitamin, mineral and nutritional supplements may contain prohibited substances that are not recorded on the label. Taking additional vitamins or minerals supplementation above the recommended dietary allowance is not likely to improve performance and for some substances could actually have serious side effects such as:

- **Niacin (vitamin B3)** - large doses can cause itching, flushing, tingling and headaches
- **Vitamin A** - large doses over a prolonged period of time can cause headache, nausea, diarrhoea, dry and itchy skin, hair loss, loss of appetite and kidney and liver damage.
- **Vitamin C** - although excess vitamin C is usually excreted in the urine, mega doses can result in diarrhoea, nausea and stomach cramps
- **Vitamin D** - large doses can result in side effects such as weakness, thirst, increased urination, gastrointestinal upsets and depression. Prolonged mega doses can result in calcium deposits in soft tissue, blood vessel walls and kidneys
- **Vitamin E** - large doses can result in nausea, abdominal pain, vomiting and diarrhoea.

Is it safe to take an ergogenic aid to enhance performance?

Ergogenic aids are agents which are used in an attempt to improve performance. Many ergogenic substances are banned in sport, for example, ephedrine, which could result in a positive drugs test if the concentration in the urine is greater than 10mcg/ml. One ergogenic aid that is widely used and is not on the prohibited list is creatine monohydrate. Many ergogenic aids, including creatine products have been found to contain prohibited substances that were not identified on the label. Do herbal remedies contain prohibited substances?

Herbal remedies, such as ginseng, guarana and echinacea have also been found to contain prohibited stimulants or other substances which may not be listed on the label. These products are difficult to quality assure and therefore a guarantee cannot be given as to their safety or legality. **Ginseng** has been used for centuries in Asia. There are over 20 plants that are called ginseng, each having varying effects. Some forms of ginseng have a stimulant like effect in that they reduce fatigue. Ginseng is also claimed to be beneficial for improving concentration and immune function as well as anti-ageing. There does not appear to be any conclusive scientific evidence supporting these claims or ginseng’s effect on sporting performance. **Ma Huang (Chinese Ephedra)** is a plant that contains the prohibited substance ephedrine taken from ephedra.

The manufacturer has given you a guarantee that their product is ‘IOC PERMITTED’. Is it true that supplements have been endorsed by the International Olympic Committee (IOC)?

Although some substances found in supplements are not on the list of prohibited substances and methods, this assessment can only be made of the substances listed on the label of the product. In the absence of a quality assured standard in manufacturing and labelling, the substances listed on the label may not be a true indication of what is actually in the product. Some supplement companies target sportspeople by using the words ‘IOC PERMITTED’ to build confidence in the product. The IOC does not endorse any supplements and advise caution to athletes wanting to use them. Do not believe everything you read on the label! Manufacturers are often aware of the competitiveness of
sport and the continual striving to achieve. Many market their products by relying on personal endorsements by well-known sportspeople or anecdotal evidence, neither of which may be based on scientific studies or reliable evidence.

**Can I get my supplements tested to make sure they are safe to take?**

Getting your supplements tested by a reliable laboratory is extremely expensive and does not provide a guarantee to the safety or legality of your supplements. It is not just a case of testing one bottle of supplements and knowing that your supplement is safe. You would need to test every single batch of supplements you take to ensure that each batch had not been contaminated or poorly labelled. This is not a guaranteed method of identifying safe products.

**Where can I find a registered nutritionist or accredited sports dietitian?**

*British Dietetic Association* - telephone 0121 200 8080 or visit their website at [www.bda.uk.com](http://www.bda.uk.com)

*Dietitians in Sport & Exercise Nutrition* – mail to DISEN, PO BOX 22360 London W13 9FL

*Nutrition Society* – telephone 0207 602 0228

*UK Sport*  
Drug-Free Sport Directorate  
40 Bernard Street  
London WC1N 1ST