Sports and Exercise Nutrition Register (SENr)
Supplement use in Sport
Position Statement

The following position statement was written under the guidance of the SENr board, with specific technical contributions from Prof. Graeme L Close, Michael Naylor and Irene Riach.

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Introduction

With elite sport becoming increasingly more competitive, athletes and teams are constantly looking for ways to gain an edge over opposition. This has led to nutritional supplement use becoming common practice for many athletes. Analyses conducted following the Atlanta and Sydney Olympic Games revealed 69% and 74% use of supplements by Canadian athletes respectively (Huang et al. 2006) and a study showed that 85% of elite track and field athletes report use of supplements *(Maughan et al. 2007*). At the FIFA 2006 World cup 57% of players reported use (Tscholl et al. 2008) and at the London 2012 Olympics 82% of Japanese athletes used supplements in the year before the games (Sato et al. 2015).

Evidence suggests that the rate of contamination of supplements widely available to purchase in the UK, Europe and USA is between 10 and 25% *(HFL, 2013)*. This is confirmed by the UK Anti-Doping (UKAD) figures which indicate that approximately 44% of positive tests in the UK in 2012 are thought to have been attributed to the presence of prohibited substances in supplements *(source UKAD)*.

It is important to note the difference between a prescribed pharmaceutical grade supplement i.e. Vitamin D or Ferrous Sulphate and that of an over the counter Vitamin D or Iron preparation. The pharmaceutical grade supplement will carry less risk due to the rigors of production as a medicine. Practitioners should be mindful of nutritional deficiencies as identified by haematological investigation and the importance of appropriate intervention via a prescribed pharmaceutical grade supplement.

British athletes are governed by the UK Anti-Doping rules (http://www.ukad.org.uk/resources/document/uk-anti-doping-rules) and the World Anti-Doping Code (https://www.wada-ama.org/en/resources/the-code/world-anti-doping-code), both of which are underpinned by the principle of “Strict Liability”. This means that each athlete is solely responsible for any prohibited substance found in their body regardless of how it got there and whether there was any intention to cheat. A positive test is just one way to commit an anti-doping rule violation (ADRV), the consequences of which will be determined by the athlete’s degree of fault and their intentions. The principle of ‘Strict Liability’ is particularly relevant where nutritional supplements are concerned, as the risk of inadvertently consuming prohibited substances is higher compared with consuming food.

When used effectively and safely, some supplements may contribute towards improvements in health and/or performance for some athletes. This may be by supporting adaptation to training, supporting immune function or injury prevention / management, or by having a direct performance enhancing effect. However, due to the nature of the supplement industry, there are potential risks, which may lead to an anti-doping violation, such as inconsistencies in production standards and sourcing of ingredients. Furthermore, many products available for everyday purchase contain prohibited substances.

Purpose

The aim of this position statement is to provide Athlete Support Personnel (ASP) with a guide to appropriately assess the need for supplementation, assess the risk of supplementation, understand the consequences of taking supplements from an anti-doping perspective and provide practical guidelines and tools for the safe usage in order to support athletes and ASP. This document should be read in conjunction with the SENr Clean sport commitment in Appendix Four

Legislation & World Anti-Doping Code

The World Anti-doping Code clearly states that ASP must be knowledgeable and comply with all anti-doping policies and rules. ASP should be aware that they could be sanctioned for six out of the ten Anti-Doping Rule Violations (ADRV) in the World Anti-Doping Code. ASP are encouraged to use their influence positively, help develop ethical behaviour, strong values and foster anti-doping attitudes amongst the athletes that they work with.

It is important that all members of the SENr have a clear understanding of the present risks associated with advising consumption of supplements. UK anti-doping (UKAD) gives a clear warning that recommending the use of nutritional supplements could put ASP at risk of an ADRV. The 2015 World Anti-Doping Code (2015 Code) has included two new ADRVs which are applicable to ASP;

Complicity

ASP found to be involved in assisting or covering up an athlete's ADRV can now be sanctioned in the same way as the person who has committed the ADRV. ASP who engage in conduct which he or she knew constituted an ADRV, or knew that there was a significant risk that conduct might result in an ADRV and manifestly disregarded that risk, may be found to have intentionally committed a doping offence. The sanction from 1 January 2015 for intentional doping is four years of ineligibility to practice in sport.

Prohibited Association

If you are an ASP who has either been found guilty of an ADRV or a criminal or disciplinary offence equivalent to an ADRV (such as providing banned substances), you will be required to inform UKAD and SENr alongside any athletes or sports you are currently working with. Athletes should be reminded of strict liability and that any athlete may face a ban of up to two years if they continue to work with a banned ASP after notification.

Other Points to Note:

ASP are not allowed to use or possess any banned substances unless for a valid medical reason. If an athlete you support who is a minor is found to have committed an ADRV, or if more than two athletes you work with have committed an ADRV, you may also be investigated by UKAD.

As of October 2015, UKAD have published an online list of ASP found guilty of an ADRV, some with life bans on working in sport.

If an athlete is found to contravene the 2015 Code and fails a doping test which they believe is due to contaminated products, it is the responsibility of the athlete to provide evidence that:

- The product was contaminated

- They have undertaken due diligence before taking the product i.e. was the product tested and part of a programme.

Thus, whilst the legal responsibility falls to the athlete themselves, a key role of the ASP is to ensure that comprehensive and up to date advice is provided to the athlete and the wider team. It is therefore imperative that the ASP is aware of all updates to the Prohibited List. The Prohibited List as a minimum is updated annually with changes coming into effect on 1 January each year, although the List can be updated at any time. It should be noted that there is a three month advance notice period of any changes to the List, alongside any associated developments within the World Anti-Doping Code. SENr strongly advise their members to ensure they are up to date with any wider legislation relating to the production or manufacture of supplement products.

Key Points for Consideration and Application

Reported contamination rates of nutritional supplements currently sits around 10-25%.

44% of positive tests in the UK in 2012 are thought to have been the consequence of prohibited substances in supplements.

Supplement producers conform to different manufacturing standards than the production of pharmaceutical medicines. Supplements which have been batch tested help to minimise the risk.

British Athletes are bound by the principle of Strict Liability within the World Anti-Doping Code.

Is Supplementation necessary?

Athletes are constantly surrounded by marketing and pressures from peers and ASP to consider supplement usage for a performance edge. The main risks associated with supplements are; the product contains prohibited substances, contamination to the raw ingredients, cross contamination in the manufacturing process ingredients not listed on the label or labelled under a different name and the risk of buying a counterfeit product, particularly when purchased online. It is essential that athletes and ASP effectively "assess the need" for supplements prior to use. As with any intervention in sport the decision to use supplements should stem from a health or performance question, not a marketing claim. Adopting such a "performance backwards" approach addressing performance and/or health questions empowers strategies to be relevant, specific and individualised.

Nutrition solutions should be constructed with a "food first" mind-set to avoid the use of any unnecessary supplements which may increase the risk of committing an ADRV. It is proposed that the most suitable support personnel to advise on supplement use are those who are registered with a suitable accreditation body (e.g. SENr). Such practitioners have had to demonstrate an understanding of appropriate supplement usage and safety as part of their registration process.

In many cases performance questions should not be the only pre-determinant of supplement usage. Relevant biomarkers which indicate nutrient deficiencies (e.g. blood data) are often of benefit, not only to highlight a deficiency, but to ensure supplements are taken in safe doses and that levels of toxicity are not reached to avoid adverse health and performance effects.

Key Points for Consideration and Application

Consideration of supplement use should stem from performance/health questions, not marketing claims i.e. a performance backwards approach.

Adopt a "food first" philosophy, not supplement first, to maximise safety and relevance.

Athletes and practitioners should seek advice from suitably qualified and registered practitioners (e.g. SENr).

Utilise relevant biomarkers where possible to assess the need of supplements, and monitor effectiveness and safety of strategies.

When supplements are utilised, interventions should be monitored to assess the effectiveness. This can be achieved by assessing relevant health or performance biomarkers along with athlete feedback.

With the large number of supplements available, and the UK market being valued at circa £300 million in 2013, maximising profit is often the primary objective of many supplement companies. It is important to be aware that pharmaceutical manufacturing standards are tightly regulated whereas the supplement industry is regulated differently. As a consequence, athletes must undertake thorough research of any supplement product that they intend to use to minimise their risk of inadvertent doping.

With research suggesting at least 10% of supplements contain traces of prohibited anabolic steroids and/or stimulants from leading European Sports Brands *(HFL, 2013)*, athletes may be regularly exposed to supplements that may be capable of committing an ADRV. To reduce the risk of inadvertent doping, supplement testing schemes have been developed to batch-test products for prohibited substances, in accordance with the WADA Prohibited List (http://list.wada-ama.org/). All products used by athletes should be batch-tested for prohibited substances using a risk minimisation scheme.

It is not only contaminants that pose a risk to athletes, it has been suggested that many supplements contain ingredients listed on the product label under a variety of different names. Therefore, it is recommended to purchase from suppliers who manufacture to Good Manufacturing Practice guidelines (GMP), are certified to ISO9001: 2008 by SGS, a United Kingdom Accreditation Service (UKAS) accredited company, and independently audited on a regular basis. The purpose of such process is to have all ingredients traceable back to source. It is therefore important to acknowledge that GMP was not developed with risks of banned substances in mind and is not a replacement for screening for contamination. Furthermore, due to the varying quality of products on the market it is often beneficial for practitioners and athletes to do their own research into product quality and traceability. If the company cannot provide details of ingredient traceability and quality then it may be worth considering alternative products.

Key Points for Consideration and Application

Ensure products are batch-tested for prohibited substances to reduce the risk of contamination.

Use products from suppliers who manufacture to GMP standards.

Research traceability of products to ensure ingredients are from quality sources and manufactured to the highest standards.

Practical Advice

Recognising that athletes will seek advice, ASP should take significant caution when offering advice, taking steps to protect athletes and themselves. The flowchart in Appendix One is suggested as a useful reference tool to guide discussions with athletes.

SENr registrants should be considered a vehicle of information given their understanding and practical experience in this field. Registrants can support athletes to make this informed decision by following the UKAD approach of:

- Assess the need (i.e. is the gap in performance nutrition related)
- Assess the risk (is the supplement batch-tested.
- Assess the consequences (4yr ban from sport, loss of income from sponsors, removal from training group, loss of reputation, impact on friends and family)

If after careful consideration of the above points, the athlete wishes to use a supplement the ASP must carefully document this discussion and actions arising as this could form part of their defence should an ADRV occur. Please refer to the SENr guidance on record keeping which is aligned to data protection, however SENr would recommend that athlete records are kept for a minimum of 10 years in line with retrospective anti-doping testing protocols.

Current thinking on best practice of supplement procurement entails an evidence trail of the research carried out by the athlete. Careful checking that the supplement intended is present on the risk minimisation scheme list and that the batch purchased has a valid certificate. This certificate should be stored electronically or in paper format for 10 years. The pro forma in Appendix Two can be used as a useful reference tool to facilitate product research.

NB: It is crucially important that this risk assessment (found in Appendix Two) is carried out for each new batch of products purchased to ensure that the athlete is protected.

Once the product arrives it is important to check that the batch certificate matches the supplement purchased. A sample of each batch tested product is stored by the anti-doping laboratory LGC for the shelf life of that particular batch. It is then the athlete's choice whether to keep a sample of the batch tested supplement longer if deemed necessary, bearing in mind that retrospective anti-doping testing of blood or urine can be carried out for a period of up to 10 years post collection. It is very important that if supplements have been identified as part of the needs assessment, that clear measures of impact are identified before the supplementation is commenced. Without this there will be no way to verify whether the supplement has had a positive or negative impact on performance. This should be recorded in practitioner notes as part of good practice guidelines. It is also worth considering the use of a disclaimer with

athletes to ensure that “strict liability” is fully understood by the athlete. An example disclaimer can be seen in Appendix Three.

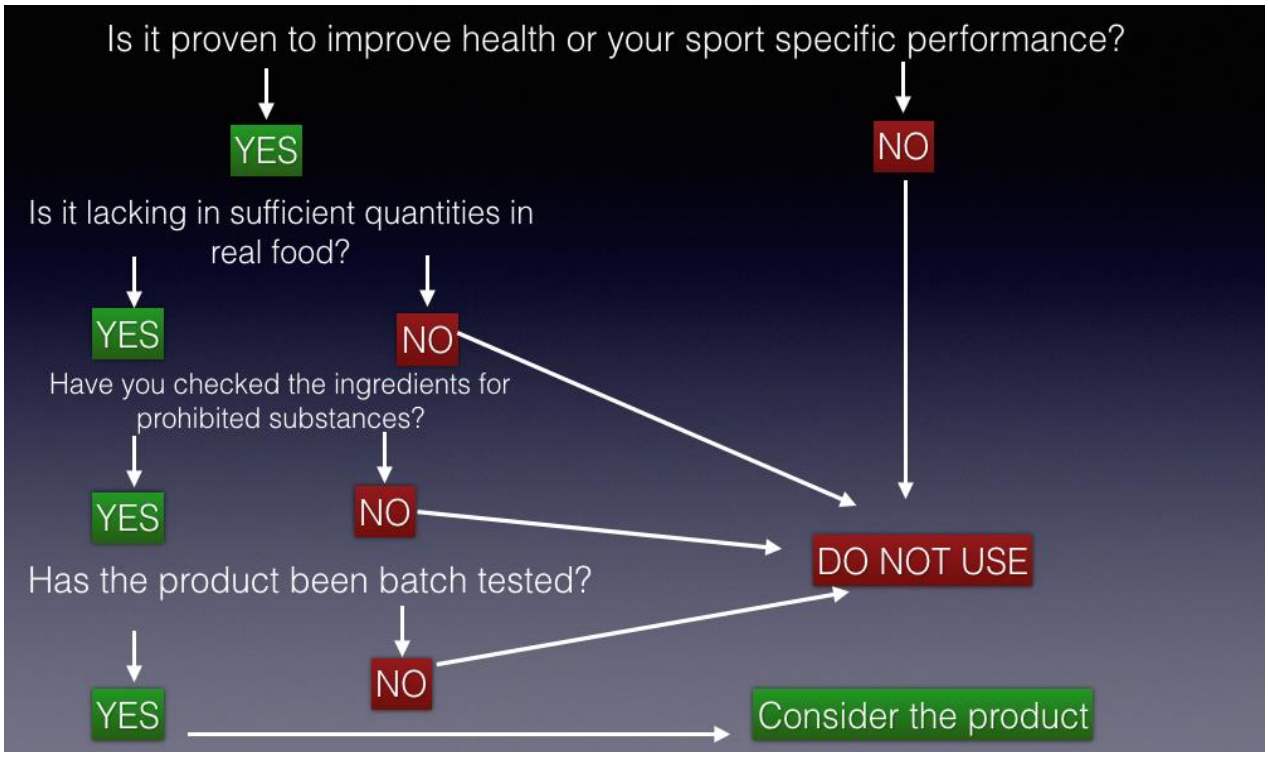
Key Points for Consideration and Application

ASP should exercise caution when offering advice on supplements to athletes and coaches, and should take steps to protect themselves and the athlete they are supporting.

SENr practitioners can provide advice to enable an athlete to make an informed decision in the area of nutritional supplements and food intake.

SENr practitioners should pay particular attention to the SENr guidance on note taking for best practise examples, as these notes may be used as evidence in the event of an ADRV.

Appendix One: Supplement Decision Making Flowchart



Appendix Two: Supplement Checklist

(Available as a separate PDF to download)

Name of Product	
Is this supplement prescribed?	YES/ NO/ UNSURE
If no, why are you considering this product?	
Is it on a risk minimisation scheme list?	YES/NO/UNSURE
Manufacturer	
Batch number if available	
Ingredients list	
Comments on the ingredients	
Are there risks of contamination?	
What is the nutritional value per serving?	
What is the cost per pack / portion? Can this be justified?	
What claims are made on the packaging?	
Is there any research to support the claims on the packaging?	
Are there any health risks with taking this product?	
How do you purchase it?	
What evidence can you show for ordering/purchasing?	
Why are you considering this product?	
Are there any food alternatives that would also be worth considering?	
Are you going to use this product? If so can you summarise your rationale?	

Appendix Three: Nutrition Supplement Disclaimer

(Available as a separate PDF to download)

SURNAME: FIRST NAME:

DOB: SPORT:

ADDRESS:

CITY: POST CODE:

TELEPHONE:

EMAIL ADDRESS:

I am aware that there is a difference between a prescribed supplement from a medically qualified physician resulting from blood analysis and that of a potentially performance enhancing nutritional supplement.

I am aware that (Insert organisation or individual practitioner's name) does not supply athletes with nutritional supplements and that any athlete who chooses to use such products does so at their own risk and accepts full responsibility.

Advice on nutritional supplements is available from (Insert SENr nutritionists name) ensuring high level athletes receive appropriate and evidence-based information. This enables athletes to make an informed choice.

I hereby confirm that I would like to use nutritional supplement products. I understand the risk of contamination with substances included in the list of banned substances published by WADA and I take full responsibility for my decision and accept all liability for sourcing, purchasing, and consuming any nutritional supplements.

Athlete's signature: DATE:

SENr Nutritionist's signature: DATE:

(1 x copy for athlete, 1 x copy for coach 1 x copy for SENr nutritionist)

Appendix Four: Clean Sport Commitment Statement

(available as a separate PDF to download)

All sporting participants have the right to compete in Clean Sport.

The Sport and Exercise Nutrition Register (SENr) adopts the UK Anti-Doping ('UKAD') and World Anti-Doping Agency (WADA) position that cheating, including doping, in sport is fundamentally contrary to the spirit of sport, undermining the otherwise positive impact of sport on society.

To this end SENr commits to support Clean Sport in the UK in the following ways:

- The SENr supports the mission of UKAD and WADA in achieving clean sport
- All athletes are expected to play, train and compete in line with the spirit of sport, including the anti-doping rules
- All coaches and athlete support personnel are expected to perform their role in line with the spirit of sport, including the anti-doping rules
- SENr is committed to supporting the prevention of doping behaviour in the UK in collaboration with other sporting bodies
- Employed and associated staff will not condone, assist or in any way support the use of prohibited substances and methods (unless permitted by a Therapeutic Use Exemption) in any aspects of their work
- Breaches of this, or any rules/policies referred to in SENr own code of practice/conduct will be acted upon accordingly
- All SENr registered practitioners will be expected to contact UKAD should they become aware of an athlete or NGB member using or considering the usage of a prohibited substance or prohibited method This contact should be done in confidence on the dedicated confidential Report Doping in Sport line

- The SENr will uphold any sanctions placed upon an athlete by UKAD or other associated body in accordance with the World Anti-Doping Code

How We Support Clean Sport

SENr is integral to sport in the UK by being the professional register for Sport and Exercise Nutrition practitioners. SENr's role is to develop the profession of sport and exercise nutrition in the UK, to provide professional development opportunities and set standards of practice for sport and exercise nutritionists.

Our commitment to a clean sport environment is:

- All registrants will abide by the UK Anti-Doping policy and procedures in accordance with the SENr Code of Conduct

- All registrants will be expected to undertake the UKAD Advisor course as a pre-requisite for Full / High Performance registration or re-registration and undertake to renew this annually as per UKAD requirements

- All SENr accredited postgraduate courses will be required to integrate UKAD Advisor training as part of the course of study

- SENr will produce a supplement usage best practice guide in accordance with UKAD advice

- SENr will provide a space on its Board for a representative of UKAD

- SENr will provide an opportunity for UKAD to be represented at all events

Further details about UKAD and WADA can be found at on the UKAD and WADA website [www.ukad.org.uk] and [www.wada-ama.org/]

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13/05/2016

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Chair of SENr
13/05/2016

Andy Burman
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13/05/16

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Additional Note: January 2017

On some occasions supplement companies have been found to incorrectly use the Informed Sport and Informed Choice logos. This may be a blatant disregard of the logo by a company, or may be inappropriate early use of the logo prior to final test results being confirmed by Informed Sport. As such, we strongly recommend that all athletes and practitioners check that the products, and batches of supplements they plan to use, have been through the Informed Sport testing programme. This can be done easily by visiting the following webpage: http://www.informed-sport.com/supplement_search