



# AUSTRALIAN INSTITUTE OF SPORT [AIS] POSITION STATEMENT:

## SUPPLEMENTS AND SPORTS FOODS IN HIGH PERFORMANCE SPORT

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## BACKGROUND

Sports foods and supplements can play a small but important role in the sports nutrition plans for high performance athletes. Sporting organisations, sports science and medicine practitioners, coaches and athletes all contribute to a pragmatic and transparent approach that balances the risks vs reward of supplement/sports food use by considering: is it safe? Is it effective? Is it permitted for use in sport?

## OBJECTIVE

The AIS Sports Supplement Framework provides resources that enable National Sporting Organisations to promote safe and evidence-based use of supplements and sports foods in the Australian high performance sporting system.

## KEY STAKEHOLDERS

- AIS Sports Supplement Governance Committees
- National Sporting Organisations
- National Institute Network, including the AIS, plus State Academies and Institutes of Sport in Australia
- Sport Integrity Australia

## GLOSSARY OF TERMS

ADRV - Anti-Doping Rule Violations

AIS - Australian Institute of Sport

ASD- Accredited Sports Dietitian

FSANZ - Food Standards Australia & New Zealand

HP sport - High Performance sport

IOC- International Olympic Committee

NIN- National Institutes Network

NSO - National Sporting Organisation

SIA - Sport Integrity Australia

SSSM - Sports science & sports medicine

TGA - Therapeutic Goods Administration

The Framework - The Australian Institute of Sport Sports Supplement Framework

WADA - World Anti-Doping Agency

## EXECUTIVE SUMMARY

- Contemporary sports nutrition practices play an important role in optimising an athlete's health and performance. A "food first" approach, which promotes a focus on unprocessed and conventional foods, is a foundation goal of an evidence-based sports nutrition plan. However, some supplements and sports foods can play a small but valuable role in such a plan.
- The use of supplements and sports foods involves a balance between the potential rewards (its contribution to an evidence-based sports nutrition plan) and potential risks (e.g. health concerns, Anti-Doping Rule Violations [ADRVs], misplaced priorities).
- Although there is no way to guarantee a zero risk of ADRVs associated with the use of supplements and sports foods, best practice involves supplement policies, programs and guidelines that support informed decisions and safe practices around supplement use. Key considerations should be addressed before the use of any product...
  - **Is it safe?**
  - **Is it effective?**
  - **Is it permitted for use in sport?**
- The AIS Sports Supplement Framework (the Framework) is a valuable resource drawing upon the expertise of key stakeholders within the Australian high-performance sports network. The Framework supports Australia's sporting organisations and agencies to develop their own sports supplement policies, programs and guidelines which achieve best practice, including compliance with the requirements of Sport Integrity Australia (SIA) and the National Anti-Doping Scheme.
- Key components of the Framework include
  - **The ABCD classification system**, which provides a simple education tool to rank sports foods and supplement ingredients according to the scientific evidence that they can safely and practically contribute to an athlete's performance goals.
  - **Facilitation of 3rd party auditing programs** for supplements and sports foods used or provided to Australian athletes within their sports supplement programs to minimize the risk of ADRVs.
- The relaunch of the Framework in March 2021 involved a new governance structure and greater engagement with a variety of stakeholders in the Australian high performance sport network. Oversight of the Framework is provided by experts across medical, nutrition, governance and athlete wellbeing, and includes representation from both within and external to the AIS. Athlete representation is central to the governance structure. Regular updates and reporting schedules promote transparency, currency and capacity to address new projects that will further enhance best practice around the use of supplements and sports foods by Australian athletes.

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## SUPPORTING RESOURCES

Key infographics and education materials of the AIS Sports Supplement Framework and Sporting agencies to guide use of supplements and sports foods

- [AIS Sports Supplement Framework ABCD Classification System](#)
- [AIS Supplement Framework Overall Application to Performance Nutrition Goals](#)
- [AIS Supplement Framework Decision Tree](#)
- [Sports Food and Supplements Guideline/Policy Template For Sporting Organisations](#)
- [Report on Understanding Contamination Risk Associated with Protein Fortified Foods \(PFF\): O'Brien et al. 2021](#)
- [Evolution of the AIS Supplement Program](#)

## POSITION STATEMENT

Supplements and sports foods represent a lucrative industry that takes advantage of strong marketing to athletes and people who exercise, while also reflecting community interest in supplements. Supplement use is widespread among athletes, particularly in high performance sport, despite a long history of education from sporting organisations and agencies to minimise such use. Although many surveys are limited by methodological concerns, it appears that the prevalence and diversity of supplement use is continuing to grow. Use increases with the age of the athlete and the level of their participation or performance in sport. Supplement use practices vary across events according to the physiological characteristics of performance and the culture of the sport. A critical assessment can identify concerns about supplements, particularly associated with the use of specific products. Nevertheless, it is recognised that a limited number of sports foods and supplements can provide a small, but valuable contribution to an athlete's sports nutrition plan. These include sports foods that provide convenient sources of energy and nutrients to meet every day or specialised nutritional targets; nutritional supplements that are used to treat or prevent micronutrient deficiencies; and special ingredients or performance supplements that can directly enhance performance or indirectly assist the athlete to achieve performance goals via the achievement of consistent training and competition preparation.

A pragmatic approach that is empathetic to the needs and interests of athletes and coaches involves a risk: reward analysis of the use of supplements in sports. National Sporting Organisations (NSOs) and sporting agencies within Australia should develop supplement policies, programs or guidelines that provide education, resources and oversight to ensure that their members – athletes, coaches, administrators and sports science/sports medicine (SSSM) practitioners – make informed decisions and undertake safe practices regarding the use of any supplement and sports food. Key issues should be addressed in relation to any supplement or sports food: is it appropriate to consider the use of this product? Is it safe? Is it effective? Is it permitted for use in sport?

Collaboration between stakeholders in Australia's high performance sport network should continue to develop the Framework to support the evolution of best practices around supplement use. Such practices should optimise performance, promote health and fairness within the Australian sporting landscape, and maintain compliance with the guidelines of SIA.

### What is a supplement?

There is no single and universal definition of a supplement or sports food because of the lack of a unified classification scheme or regulatory approach to these products. Furthermore, as the food industry develops new products, the line between food, sports food and supplement becomes even more blurred. Different classification systems include regulatory definitions, the physical form (e.g. pills, powders, drinks, foods), the source (e.g. pharmacies, health food stores, internet), the claimed function and the level of evidence to support their use. None is perfect in meeting the needs for education and practice within high performance sport.

A working definition of supplements and sports foods in Australia is proposed, with comparison to other products with which they may have some overlap or shared characteristics:

- **Supplement:** single or multi-ingredient product in powder, limited volume liquid, pill or capsule form providing nutrients or other dietary components to achieve a specific health and/or performance benefit.
- **Sports Food:** food or drink formulated to help people achieve specific nutritional or performance goals by providing a convenient form of general nutrition support of athletes or a targeted use around exercise.
- **Fortified food:** conventional food to which vitamins or other nutrients are added during processing to increase its nutritional value.
- **Functional Food:** foods enriched with additional nutrients or components outside their typical nutrient composition for the purpose of enhancing the functional properties of the inherent nutrient profile of the food

## Who regulates supplements in Australia?

In Australia, supplements and sports foods are covered by either the Food Standards Code (Food Standards Australia New Zealand [FSANZ]) or the *Therapeutic Goods Act 1989* (Therapeutic Goods Administration [TGA]). Whether a product is classified as a food or a therapeutic good depends on factors including the ingredients, marketing claims and the form in which it is presented (e.g. pill, bar, powder, drink etc). The Food Standards Code sets legal requirements for the labelling, composition, safety, handling and primary production and processing of food in Australia. This includes a specific standard for sports foods (Standard 2.9.4 formulated supplementary sports foods [FSSF]), which was under review at the time of preparation of this Position Statement. Although the determination of the Foods Standards Code is a federal activity, compliance to the Code is monitored and enforced separately within each state and territory.

The TGA is responsible for regulating the manufacturing, supply, sale, and advertising of therapeutic goods, which includes higher risk (registered medicines) and lower risk (listed medicines). Listed medicines contain only lower risk ingredients and are labelled with an AUST-L number and can be purchased from general retail stores including supermarkets and health food stores without the need for a prescription. Dietary supplements are regulated as medicines and can be listed or registered, depending on the ingredients they contain and the level of the claimed health benefit (indication).

In November 2020, after extensive consultation, in response to safety concerns associated with the use of certain sports supplements that were marketed as foods, the TGA clarified the regulatory status of certain sports supplements to be medicines. These include:

- Sports supplements containing higher risk ingredients, such as substances included in a schedule of the Australian Poisons Standard (e.g. prescription medicine ingredients) or substances banned for use in sport by the World Anti-Doping Agency.

OR

- Sports supplements presented in a pill, tablet or capsule form.

From November 2021, sports supplements containing higher risk ingredients (no matter what presentation form, e.g powder or tablet) must be included in the Australian Register of Therapeutic Goods (ARTG). Due to the higher risk ingredients, these supplements are likely to be required to be 'registered medicines' and must carry an AUST-R number on their labels. Depending on the ingredients and health claims, these sports supplements may be available at general retail stores, or at pharmacies with the advice of a pharmacist or requiring a doctor's prescription.

From November 2023 (allowing a 3-year transition period) products that are presented in tablet and pill form (that do not contain the identified higher risk ingredients) will also need to be included in the ARTG to be available in Australia. Providing these products only contain low risk ingredients and low risk indications that are permitted for listed medicines, it is likely these products can be included in the ARTG as listed medicines.

## What are the rewards of use of supplements and sports foods?

A well-chosen and personalised sports nutrition plan can assist an athlete to optimise the quality and benefits from training, reduce the risk of illness and injury, and perform at their best in the competition arena. A "food first" approach, which promotes a focus on unprocessed and conventional foods within dietary choices and nutrition practices, provides the foundation for such a plan. However, strategic use of supplements and sports foods can also contribute. Different benefits might occur:

- Some sports foods provide a convenient and targeted means of meeting nutrition goals in a busy lifestyle or around exercise sessions. An Accredited Sports Dietitian (ASD) can assist an athlete to identify where these opportunities really exist.
- Some supplements provide an effective dose of "at-risk" nutrients to prevent or treat a diagnosed nutritional deficiency. A sports doctor and/or ASD should be involved in supervising the assessment and management of such issues.
- A few supplements are known to directly enhance capacity for a specific type of exercise. ASDs can assist with identifying such scenarios and appropriate protocols of use.
- A few supplements are known to support issues such as training adaptation, sleep, manipulation of body composition, and the risk of illness and injury, which can indirectly lead to better performance. Sports doctors and ASDs can assist with evidence-based use of these products as part of a larger plan.

Examples of products or ingredients that meet these descriptions are identified within the ABCD classification system of the Framework ([www.ais.gov.au/nutrition/supplements](http://www.ais.gov.au/nutrition/supplements)). This information is continually updated to align with new knowledge and practice.

In addition to the nutritional and physiological effects associated with the use of supplements and sports foods (or any other practice), athletes can benefit from psychologically driven benefits associated with having confidence and belief in a plan. Although this “placebo effect” is sometimes dismissed, it can provide measurable benefits to athletes. This provides incentive for athletes to invest in a well-supported and well-practiced nutrition plan rather than an *ad hoc* and poorly planned approach.

## **What are the risks associated with the supplements and sports foods?**

Many supplements are costly and most sports foods are more expensive than the conventional food choices they replace. This may reflect the price of the additional processing or packaging, the inclusion of special, additional features of batch testing, or simply, what athletes are prepared to pay for something that sounds exciting. The use of supplements/sports foods may create an additional burden to an athlete’s financial situation or displace funds from other items that might be of greater value.

The use of supplements and sports foods carries a small but real risk of adverse effects and health concerns. Sometimes this is related to the safety and composition of the product per se. Although Australian regulations require supplements and sports foods to be manufactured to high manufacturing practice standards and to provide safety information about their use, compliance is typically voluntary. Indeed, most monitoring only occurs when non-compliance or safety concerns have already been reported. Some supplements and sports foods have been found to contain undeclared ingredients, impurities and contamination. In some cases, ingredients found in these products (both stated on the label or present as contaminants) have been associated with serious medical problems, and, on occasions, deaths. Even products that have evidence of benefits to athletic performance can have side-effects in some individuals or when used outside established protocols. Some problems occur because athletes fail to use safe protocols and the lowest effective doses, or experience interactions between several substances that are consumed at the same time. It is difficult to get information on the prevalence of such problems, since most of the data comes from countries like the United States in which supplement regulation is different to Australia. In addition, information from consumer complaint records or hospital/medical reports may fail to consider minor issues that may nevertheless interfere with an athlete’s performance or training consistency.

A number of ingredients found in supplements are included on the Prohibited List (<https://www.wada-ama.org/en/what-we-do/the-prohibited-list>), published by the World Anti-Doping Agency (WADA). These include products from many of the categories within the World Anti-Doping Code, including anabolic agents, peptide hormones, hormone and metabolic modulators, beta-agonists and stimulants. Although some of these substances may be prohibited from sale in Australia, they are present in supplements that can be purchased in other countries or via the internet. Anti-doping education programs highlight the need for athletes to carefully consider and mitigate the risks in the use of supplements. According to WADA’s principle of strict liability, every athlete is responsible for the presence of a prohibited substance or its markers/metabolites in their biological samples, irrespective of whether or not the ADRV was committed unintentionally or deliberately. Athletes should only use batch-tested products. While batch-tested products have the lowest risk of containing prohibited substances, they cannot offer a guarantee that products are free of contamination. This is a responsibility that athletes must accept to reduce the risk of an ADRV.

No supplements are completely free of anti-doping risk. The AIS recommends food first. The only zero risk approach is to use zero supplements. Some supplements contain prohibited ingredients without declaring them as ingredients; this is typically a result of contamination or poor labelling within lax manufacturing processes. However, there have been cases where therapeutic doses of steroid compounds have been detected in supplements, suggesting a deliberate strategy by manufacturers to gain ‘street popularity’ when athletes spread testimonials of favourable results from their use. Studies and market surveys over the past twenty years have reported consistent evidence of contamination of supplements with prohibited substances. Even when the level of contamination is very small – and certainly too low to provide a therapeutic effect – techniques employed by many accredited laboratories are sufficiently sensitive to detect this as an analytical finding, leading to an ADRV. It is important that athletes and support personnel maintain accurate records of all supplements used and the steps undertaken to minimise the anti-doping risks. In various real-life cases, sanctions have varied from a suspended sentence to full imposition of a ban from participation. Regardless of the sanction, the athlete risks significant reputational damage as a result of an ADRV.

Anti-doping rules apply to all athletes who are registered members/competitors of sporting organisations with an anti-doping code. The current WADA Code recognises a variety of different violations around the purchase, importation, possession, or supply of prohibited substances by athletes. Some of these violations also apply to support personnel. Therefore, all athletes and support personnel must be educated about their roles and responsibilities in relation to anti-doping, which includes their risks associated to supplement use. This caution should also apply to food sources of prohibited substances. Although most focus around this risk has targeted the use of anabolic agents in meat production in some countries, the risks associated with fortified foods and functional foods, such as the growing market of protein-fortified foods, should also be considered. This latter group of foods should be considered within supplement education programs.

## How should athletes navigate an approach to the use of supplements and sports foods?

Given the potential risks associated with the use of supplements and sports foods, the historical approach of most sporting organisations and HP sport agencies has been to advise against their use. While the doping risk remains, the past decade has seen a shift in the attitudes to recognise that the use of supplements and sports foods is complex and warrants a more flexible and pragmatic approach. The AIS experience is that this approach achieves many benefits. These include the ability to engage with athletes and coaches who are already using supplements, recognition of the landscape of supplement use in the broader community, and the reality that there are scenarios in which the use of sports foods, nutrient-based supplements and performance supplements contribute to the athlete's sports nutrition plan and performance outcomes. This change in philosophy has fostered education campaigns that support careful use of supplements within a sports nutrition plan, based on a risk: reward analysis. Key agencies such as the International Olympic Committee (IOC) have also embraced this approach.

A cornerstone of this pragmatic approach is the employment of decision trees that enable athletes to make considered decisions about a specific product before committing it to a specific use:

- **Is it safe?**
- **Is it effective?**
- **Is it permitted for use in sport?**
- **Is this the appropriate time for me to consider using this product?**

Decision trees related to supplements and sports foods can assist the athlete to make informed decisions about their use. In sourcing supplements for use by athletes, only products that have been batch tested by third-party auditing companies should be used. These companies include HASTA and LGC (Informed Sport) which operate in Australia, as well as programs from other countries (e.g. NSF in the United States) which may be employed in the manufacture of internationally sourced products. The SIA app is a useful resource to help mitigate the risk of inadvertent doping by providing a list of supplements that have been batch-tested. There are clear roles for various members of an athlete's support team and high-performance environment in assisting the athlete to make an informed decision about the use of supplements and sports foods, then act on it appropriately. In addition, it is the responsibility of NSOs and other sporting agencies to develop supplement policies, programs and guidelines, to provide education about these to athletes, coaches and SSSM professionals within their jurisdiction, and to provide oversight over the adherence to these programs.

## How can the AIS Sports Supplement Framework assist in this space?

The AIS Sports Supplement Framework (the Framework) is a valuable resource drawing upon the expertise of key stakeholders within the Australian high-performance sports network. The Framework supports Australia's sporting organisations and agencies to develop their own sports supplement policies, programs and guidelines which achieve best practice, including compliance with the requirements of SIA and the National Anti-Doping Scheme.

The evolution of the AIS Sports Supplement Framework is instructive in providing a case study of protocols and resources associated with managing the use of supplements and sports foods within the Australian high performance sport environment. It illustrates a model to deliver best practice around supplements and sports foods to support their safe, effective, and permissible uses by athletes. [Evolution of the Framework](#) is described elsewhere.

Key components of the AIS Sports Supplement Framework include:

- The ABCD classification system, which provides a simple education tool to rank sports foods and supplement ingredients according to the scientific evidence that they can safely and practically contribute to an athlete's performance goals.
- Facilitation of 3rd Party Auditing programs for supplements and sports foods used or provided to Australian athletes within their sports supplement programs to minimize the risk of ADRVs

The relaunch of the AIS Sports Supplement Framework in March 2021 involved a new management structure and greater engagement with a variety of stakeholders in the Australian high performance sport network. Regular updates and reporting schedules promote transparency, currency and capacity to address new projects that will further enhance best practice around the use of supplements and sports foods by Australian athletes. Although there will continue to be challenges to the safe and effective use of supplements and sports foods within Australia's high-performance sports system, collaboration by all stakeholders within the network will continue to work towards pragmatic solutions that optimise performance, promote athlete health and maintain fairness.



## The ABCD Classification System of the AIS Sports Supplement Framework: 2021

- The ABCD Classification system ranks sports foods and supplement ingredients into four groups according to scientific evidence and other practical considerations that determine whether a product is safe, permitted and effective in improving sports performance.
- The current classification of supplements and sports foods was made via the consensus of the AIS Sports Supplement Framework Committee and will constantly evolve aligned with new knowledge and the informed direction of our key stakeholders.
- The ABCD Classification system focuses on sports foods and individual ingredients rather than specific supplement products and brands.
- Multi-ingredient supplements (e.g. pre-workouts) raise specific concerns. These products contain a large list of individual ingredients, and, in some cases, the doses of these ingredients are not stated on the label with the excuse that it is a “proprietary blend” over which the manufacturer has special ownership. Concerns about these products include the lack of an effective dose (e.g. inadequate amounts or poor timing of intake relative to exercise) of some active ingredients, potential for harmful interactions between ingredients, and the increased risk of inadvertent contamination due to the sourcing of ingredients from various locations.
- The goal of the AIS is to evolve knowledge and practice regarding the use of supplements and sports foods within Australian HP sport via the engagement of key stakeholders and the resources that are created.
- AIS works in collaboration with SIA to reduce the risk of ADRVs arising from the use of supplements and sports foods.

### Group A

Overview of category within AIS Sports Supplement Framework	Sub-categories	Examples
<p><b>Evidence level:</b></p> <p>Strong scientific evidence for use in specific situations in sport using evidence-based protocols</p> <p><b>Use within Supplement Programs:</b></p> <p>Permitted for use by identified athletes according to Best Practice Protocols</p>	<p><b>Sports foods</b></p> <p>Specialised products used to provide a convenient source of nutrients when it is impractical to consume everyday foods.</p>	<p>Sports Drink</p> <p>Sports Gels</p> <p>Sports Confectionary</p> <p>Sports Bar</p> <p>Electrolyte supplements</p> <p>Protein Supplements</p> <p>Mixed Macronutrient Supplement (Bar, Powder, Liquid Meal)</p>
	<p><b>Medical supplements</b></p> <p>Supplements used to prevent or treat clinical issues including diagnosed nutrient deficiencies.</p> <p>Should be used within a larger plan under the expert guidance of a Medical Practitioner/Accredited Sports Dietitian</p>	<p>Iron</p> <p>Calcium</p> <p>Vitamin D</p> <p>Multivitamin</p> <p>Probiotics</p> <p>Zinc</p>
	<p><b>Performance supplements</b></p> <p>Supplements/ingredients that can support or enhance sports performance.</p> <p>Best used with an individualised and event-specific protocol, with the expert guidance of an Accredited Sports Dietitian</p>	<p>Caffeine</p> <p>B-alanine</p> <p>Bicarbonate</p> <p>Beetroot juice/Nitrate</p> <p>Creatine</p> <p>Glycerol</p>

**Group B**

Overview of category within AIS Sports Supplement Framework	Sub-categories	Examples
<p><b>Evidence level:</b></p> <p>Emerging scientific support, deserving of further research.</p> <p><b>Use within Supplement Programs:</b></p> <p>Considered for use by identified individual athletes within research or clinical monitoring situations.</p>	<p><b>Food Polyphenols</b></p> <p>Food compounds which may have bioactivity including antioxidant and anti-inflammatory properties. May be consumed in food forms (whole or concentrate) or as isolated extracts</p>	Fruit-derived polyphenols
	<p><b>Antioxidants</b></p> <p>Compounds often found in foods which protect against oxidative damage from free-radical chemicals.</p>	Vitamin C N-Acetyl Cysteine
	<p><b>Tastants</b></p> <p>Food-derived compounds (Transient Receptor Potential [TRP] channel agonists) that interact with receptors in the mouth/ gut that are involved in communicating a variety of sensations, including pain, temperature, taste, pressure and stretch</p>	Menthol Pickle Juice Quinine
	<p><b>Other</b></p>	Collagen Supplement Curcumin Ketone Supplements Fish Oils Carnitine

**Group C**

Overview of category within AIS Sports Supplement Framework	Sub-categories	Examples
<p><b>Evidence Level:</b></p> <p>Scientific evidence not supportive of benefit amongst athletes OR no research undertaken to guide an informed opinion</p> <p><b>Use within Supplement Programs:</b></p> <p>Not advocated for use by athletes within Supplement Programs</p> <p>May be permitted for use by identified athletes where there is specific approval from, or reporting to, a Sports Supplement Panel.</p>	<p>Category A and B products used outside approved protocols</p>	See list for Category A and B products
	<p><b>Named Products</b></p> <p>Attention is drawn to products that have been moved to a new category</p>	Magnesium Alpha lipoic acid HMB BCAA/Leucine Phosphate Prebiotics Vitamin E Tyrosine
	<p><b>The rest</b></p> <p>If you can't find an ingredient/ product in Groups A, B or D, it probably deserves to be here</p>	

## Group D

The list in this group is identified as “examples” to note and may not be complete.

Overview of category within AIS Sports Supplement Framework	Sub-categories	
<p><b>Evidence level:</b> Banned or at high risk of contamination with substances that could lead to a positive doping test</p> <p><b>Use within Supplement Programs:</b> Not be used by athletes</p>	<p><b>Stimulants</b></p> <p>Consult WADA list for all examples: <a href="https://www.wada-ama.org/">https://www.wada-ama.org/</a></p>	<p>Ephedrine</p> <p>Strychnine</p> <p>Sibutramine</p> <p>Methylhexanamine (DMAA)</p> <p>1,3-dimethylbutylamine (DMBA)</p> <p>Other herbal stimulants</p>
	<p><b>Prohormones and hormone boosters</b></p> <p>Consult WADA list for all examples: <a href="https://www.wada-ama.org/">https://www.wada-ama.org/</a></p>	<p>DHEA</p> <p>Androstenedione</p> <p>19-norandrostenedione/ol</p> <p>Other prohormones</p> <p>Tribulus terrestris and other testosterone boosters*</p> <p>Maca root powder*</p>
	<p><b>GH releasers and “Peptides”</b></p> <p>Consult WADA list for all examples: <a href="https://www.wada-ama.org/">https://www.wada-ama.org/</a></p>	
	<p><b>Beta-2 agonists</b></p> <p>Consult WADA list for all examples: <a href="https://www.wada-ama.org/">https://www.wada-ama.org/</a></p>	<p>Higenamine</p>
	<p><b>Selective Androgen Receptor Modulators (SARMS)</b></p>	<p>Andarine</p> <p>Ostarine</p> <p>Ligandrol</p>
	<p><b>Metabolic Modulators</b></p>	<p>GW1516 (Cardarine)</p>
	<p><b>Other</b></p> <p>Consult WADA list for all examples: <a href="https://www.wada-ama.org/">https://www.wada-ama.org/</a></p>	<p>Colostrum – not recommended by WADA due to the inclusion of growth factors within its composition</p>

\*These products do not appear on the WADA list and are thus not specifically banned. However, they are often found in multi-ingredient products that contain banned ingredients or are at high risk of being contaminated. Therefore, they are not recommended for use.



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