

## WHAT YOU NEED TO KNOW ABOUT SUPPLEMENTS

- There's an alarming increase in the number of supplements resulting in harmful side-effects (medical problems and fatalities) as well as positive drug tests in youth and adults alike, - harmful supplements get pulled from the market only after several people are affected and the relevant health authorities get notified.
- There is a lack of legislation and governance in the supplement industry - products are advertised and sold with misleading claims, incorrect labeling, and lack of scientific-grade efficacy and safety evidence.
- Despite the marketing hype and product claims, the fact remains that the majority of supplements on the market have not been tested according to proper and objective standards, and their claims of superiority, efficacy and safety are not proven and cannot be guaranteed.**
- Be aware that supplement manufacturers may indeed claim that their product is 'scientifically tested', but at closer inspection the evidence may be insufficient, irrelevant, misinterpreted, not applicable to youth, or in the worst, fabricated.
- Claims that the product is 'natural' or 'herbal' also does not necessarily mean that it is harmless and cannot get you banned.
- Many herbal components can have potent harmful side-effects, can lead to harmful interactions with other herbals or medications, and/or lead to a failed drug test (look out for words like ephedra or ephedrine, prohormones).
- A very small amount can let you test positive - this amount might not even be anywhere close to being beneficial for performance... So the risk is totally not worth it!
- Reliance on supplements shifts focus away from the more critical and proven methods of achieving optimal performance (and health).

## OTHER COMMON PITFALLS TO LOOK OUT FOR

- Even supplements bought from a well-known company, store, pharmacy, or website might contain harmful or banned ingredients.
- Just because the product label, website, or sales representative says that the product is 'tested', 'proven' and 'safe', doesn't mean that it is the case!
- Be aware if the product says WADA (World Anti-Doping Agency) or SAIDS (South African Institute for Drug-Free Sport) approved that it is safe to use. WADA, SAIDS or any other anti-doping agency would never approve products.**
- If banned or harmful substances aren't listed on the product label then it doesn't guarantee that product is indeed 'clean' or harmless.
- The amount the product label says you should take could be excessive and with a 'more is better' mind-set one can reach toxic levels that could lead to serious organ damage and/or death (e.g. mahuang, kava-kava).
- If a well-known sportsperson claims to use specific supplements it does not mean that it is safe or that it will work for you too.

- Even apparently 'harmless' dietary supplements like vitamin and mineral supplements have been found to be contaminated with harmful and/or banned substances that are not declared on the label.

### Be aware of the risks involved with supplement use.

Think twice before blindly believing the clever marketing claims, and ask yourself whether the potential benefits outweigh the risks?

## PROVEN FACTS

- Active sportspeople do not have to take supplements to perform at their best.
- Optimising one's training, overall dietary intake, rest, recovery and sleep patterns are proven to have a far bigger impact on physique, performance and health than any sport supplement tested to date can;**
- 'Skimping out' on any of the important aspects of nutrition and training cannot be replaced by the use of supplements.
- Nutrients from supplements are not better than those you get from food, especially to build muscle, reduce body fat, enhance recovery, immune function and so on.
- A well-balanced diet can boost performance and eliminates the many risks that one faces when using supplements.
- There are only a small number of supplements proven to assist exercise performance under certain specific conditions, but it is NOT a one-size-fits-all approach and one still cannot guarantee that it is 100% safe and risk-free...
- Supplements are expensive - rather invest your time and money in seeing a registered dietitian, who specializes in sport. That is the best person to devise an individualized sport nutrition programme for you and, where appropriate, guide you on the correct use of supplements and how to minimize risks.

## WHAT ARE THE RISKS INVOLVED WITH SUPPLEMENT USE?

Health risks may include allergic reactions, toxic effects from self-medicating, over-dosing or poisoning due to contaminants found in the products, high blood pressure, heart palpitation and failure, liver and kidney damage and failure.

For elite-level athletes there is also the risk of testing positive for a banned substance that can ruin a sporting career and discredit their reputation and that of the sporting code, province and country they represent.

The principle of strict liability applies in sport, meaning that innocent ingestion of prohibited substances is not an acceptable excuse, and athletes testing positive are liable to be sanctioned.

The label does not guarantee safety...

The lack of legislation governing local and global supplement manufacturing and marketing are major reasons for the lack of efficacy and safety standards of the products. This is true even with products from first-world countries such as the USA and UK.

## What about supplement use in YOUTH (Under 18 years of age)

**\*\*Due to the substantial risks (known and yet unknown) related to supplement use, SAIDS supports the international consensus that sports supplements (including creatine, caffeine, pro-hormones, herbals etc.) should not be used in persons under 18 years of age (see SAIDS position paper for YOUTH at [www.drugfreesport.org.za](http://www.drugfreesport.org.za))**

## HERE ARE SOME PRODUCTS / INGREDIENTS / CLAIMS OF PARTICULAR CONCERN THAT PARENTS MUST WATCH OUT FOR:

- Claims of 'hormone-like' effects - the words 'anabolic', 'mass builder', 'steroid-', 'testosterone-', 'growth hormone-like effects.'
- 'Pro-hormone' products / ingredients such as 'DHEA', '19-nor', 'androsterone-dione' or '-diol';
- Products that claim to have fat-burning effects (weight loss or 'ripping') - these are likely to contain high doses of stimulants like caffeine / ephedrine which are harmful to your health;
- Watch out even if it says 'natural' or 'herbal' forms of pro-hormones or metabolites or fat burners (e.g. Tribulus terrestris, guarana, ephedra, mahuang etc.) - these are dangerous and have been linked to several cases of toxicity, deaths and severe disability.
- Products like creatine and caffeine are not banned substances (for adults) - they have also become very popular and widely used amongst school-going youth. However, it has not been proven to be safe and effective for children and adolescents.  
- These types of supplements are often also contaminated with banned / harmful substances that are not indicated on the label...
- Products that claim to produce 'incredible results' - if it sounds too good to be true, then it normally is! The risk to benefit ratio is simply not worth it.
- Due to these risks, trainers and coaches working with under 18 year olds in schools and colleges in the USA are prohibited from supplying creatine or other supplements directly to their student athletes.

## DO YOU NEED SUPPLEMENTS TO PERFORM AT YOUR BEST?

The simple answer is NO! The science gurus have conclusively proven that the cornerstone of optimal performance is to eat a well-balanced diet (with a variety from all food groups) and eat enough of it (to meet your energy needs), to properly time your food intake (before/during/after workouts), to train intelligently and to allow for sufficient rest and recovery.

**These factors can have a far bigger impact on performance than any supplement tested to date can.**

In some situations there might be a valid reason to use a particular sport supplement. But the age, situation, type of supplement, dosage and timing thereof should be established on an individualized basis and then constantly re-evaluated. It remains critical to follow a risk minimizing approach when selecting the applicable supplement. A registered dietitian with sports nutrition experience is the best equipped health professional to help you with this process.

**NOTE: The number of supplements with good efficacy are in the minority!**



Supplements include any of the products sold as “dietary or health supplements”, “ergogenic aids” or “sports supplements”.

Aggressive marketing of these products at school, recreational and elite-level has led to large numbers of consumers blindly believing product claims and willing to pay for and use it in the hope of enhancing various aspects of sports performance.



### HOW TO MINIMISE THE RISKS

A dietitian can help you identify and implement a scientifically proven nutritional and supplement programme based on:

- ❌ Firstly, optimising your overall dietary intake, in a practical way that suits your needs and circumstances, and then secondly assessing whether you need/could benefit from supplementation, then
  - ✅ The type and amount of supplementation should be individualised to ‘fill the gaps’ if/when needed, it should be appropriate to complement your training and competition, rest and recovery goals;
- It is not a one-size-fits-all approach!
- ❌ The choice of supplement(s) should be critically evaluated - whether it has a sound scientific proof with direct, supportive and well-executed research showing its effectiveness and safety for that individual; aspects of the product manufacturing process should be investigated to help identify low-risk supplements.

Note: Certain products may contain a ‘stamp of approval’ or logo indicating that it has been tested by an independent body or laboratory and are certified free of banned substances. Supplement companies pay to have their products scrutinised and tested, on a voluntary bases. Though this helps to reduce the risk, it still does not guarantee that the product is 100% risk-free. There might still be banned or harmful substances in the product that are not specifically being tested for.

A registered dietitian who specialises in sports nutrition is a valuable resource to help you maximise your health and sporting performance potential. The dietitian can also help you optimise your performance and help you make informed choices on the use of supplements and how to follow a low-risk approach.

Visit our website ([www.drugfreesport.org.za](http://www.drugfreesport.org.za)) for more information and practical sports nutrition tips!

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# I PLAY FAIR

## SAY NO! TO DOPING

❌ **SUPPLEMENT USE  
UNDER THE SPOTLIGHT**

