

Alert!!
Sports Nutrition Working Group
International Olympic Committee Medical Commission
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**Many dietary supplements are contaminated with
steroid-like chemicals that cause a 'positive' doping test and
that are not known to be safe.**

During the past three years, IOC accredited laboratories have documented widespread contamination of numerous dietary supplements sold to athletes who believe these products will help them 'build muscles'. These products include some:

- protein powders and amino acids supplements
- creatine,
- Hydroxy-Methyl-Butyrate (i.e.; HMB)
- carnitine, ribose, pyruvate,
- guarana, Tribulus Terrestris,
- vitamins supplements and some mineral supplements containing zinc,
- numerous herbal extracts
- supplements marketed as 'pro-hormones' of testosterone

These so called '*dietary supplements*' are not considered to be a food or a drug in most countries and therefore the contents and purity of these products is **NOT** tested or closely regulated by national governments (e.g.; little Food and Drug Administration oversight in the USA). Clearly, the burden of safeguarding athleticism and public health against contaminated dietary supplements for building muscle in athletes has been placed on the individual. The IOC hopes that public education regarding the scope of the contamination of many dietary supplements might lessen problems due to ignorance.

What do we mean by 'Contamination'? - Substances contained in a product that are not listed on the label and which should not be present and which are known to cause a 'positive doping test' are contaminants. Most problems come from contamination with 'steroid-like' chemicals that are not known to be safe. Ironically, most of these 'steroid-like' chemicals don't even build muscle. Most contaminants:

- have a molecular structure that is similar to the male hormone 'testosterone'
- can be confused with 'anabolic steroids' yet they don't build muscle
- are not known to be safe or are even known to be unhealthy
- don't benefit physical performance and don't build muscle
- contain banned stimulants such as ephedra
- have contaminants are more than filth (e.g.; animal feces)

Is the 'contamination' widespread? The IOC has purchased and analyzed hundreds of products from throughout the world in the past three years and documented that the following percentage of dietary supplements (as listed above) are contaminated with chemicals known to cause a positive doping test:

- in the Netherlands (25.8 %),
- in Austria (22.7 %)

- in the UK (18.8 %)
- in the USA (18.8 %)

Therefore, approximately 'one in five' of these dietary supplements (20%) sold for the purpose of building muscle and improving athletic performance have been contaminated with 'steroid-like' chemicals.

What recommendations do we give the individual athlete ? Given the chance that about one in five of these assumed 'muscle-building' dietary supplements have been found to be contaminated, athletes must obviously be warned. We recommend they be told:

- **NOT** to take these supplements.
- Athletes also need to know that most of these supplements don't build muscle and don't improve performance. On the other hand, some products do indeed contain anabolic steroids, the levels are extremely variable, ranging from doses that are ineffective at building muscle to doses that are more than 100 fold higher and known to cause cancer.
- Supplements marketed as 'pro-hormones' of testosterone generally don't raise testosterone or build muscle
- Carnitine, ribose or pyruvate supplementations are worthless for athletes
- Creatine may have a small benefit in some athletes but the claims have been exaggerated and the risk of a positive test is significant
- Simply, the individual athlete should **NOT** assume that dietary supplements are safe, especially those assumed to build muscle,

Scientists from the '**IOC- Sports Nutrition Working Group**' are now publishing scientific proof and agreement that athletes will best build muscle and improve performance if they **DO THE FOLLOWING**:

- Eat common foods containing protein and/or carbohydrate before, during and/or after training and maintain adequate caloric intake.
- Find your own preferred foods that have the correct type and amount of nutrients and practice the timing of eating. (see the IOC booklet).
- Understand that few certified nutritionists have sufficient knowledge of sport and that most of the so called 'sports nutrition professionals' have financial ties to supplement manufactures.
- Take the advice of IOC Sports Nutrition Working Group.

IOC Sports Nutrition Working Group

Ron Maughan
 Louise Burke
 Ed Coyle
 Victor Matsudo