

Just in time for the Olympics - the bad news about sports nutrition supplements.

First came an article in the July 18th edition of the British Medical Journal (Cohen, BMJ, doi: 10.1136/bmj.ed737, 2012) saying that **most sports nutrition products have little or no scientific backing.**

And they named two of the biggest names in the industry, Pepsi-Cola (manufacturer of Gatorade) and GlaxoSmithKline (manufacturer of Lucozade Sport) as marketing products with little scientific backing.

So how was this study conducted?

A team at the Centre of Evidence Based Medicine at Oxford University evaluated the evidence behind 431 performance enhancing claims in advertisements for 104 different sports products, including sports rehydration drinks and protein shakes.

They contacted the companies and asked them to provide studies to back their claims. Many companies were unable to provide any evidence to back their claims.

However, several companies provided a total of 106 studies, which the team then evaluated. The scientific team **concluded that only 2.7% of the studies were of high quality and low risk of bias.**

They identified a number of major flaws in the remaining studies including:

- small sample size
- poor quality surrogate outcomes
- poor quality trial design including badly blinded or non-blinded studies
- data dredging using pre-defined outcome measures
- biological outcomes that did not necessarily correlate with improved performance
- inappropriate use of relative measures
- pre-study nutritional input manipulation
- changes in environmental factors - such as heat or cold - during the study

Suffice it to say that lots of the studies were really, really bad! Sadly, many of the sports nutrition products out there are based on hype and marketing, not science (Are you really surprised?)

As if that weren't bad enough, less than a week later the British Medicines and Healthcare Regulatory Agency (MHRA) identified **84 sports supplements that should not be used by Olympic athletes (or any athletes, for that matter) because they contained dangerous ingredients.**

Some of the supplements in question contained steroids or hormones that were not only dangerous, but could cause Olympic athletes to fail drug testing.

Others contained stimulants like DMAA, ephedrine, synephrine and yohimbe that can cause kidney failure, seizures, heart problems and death.

Most of the supplements in question were not publicly named. Instead, the MHRA simply advised shopkeepers in England to remove them from their shelves.

So there you have it. Most sports supplements are based on hype and marketing, not science. And many sports supplements are downright dangerous.

Your best bet is to stick with a reputable company with a history of working with Olympic athletes. And simply ignore all those claims about instant muscle growth super fast times.

To Your Health!

Dr. Stephen G Chaney