

# **THE TRUTH ABOUT SPORTS SUPPLEMENTS!**

Following my attendance at a scientific meeting this week on the topic of supplementation in sports people coupled with the fact that I continually hear and see more and more of our sportsmen venturing into this world, I thought I would share some truths about the supplementation industry and then have a quick look at the real nutritional needs of a school boy sportsman.

The sports supplement industry is like the wildwest, anything goes. Protein Supplements promise to result in “a dramatic increase in lean muscle mass”, “an increase in strength and power” and “extreme muscle stamina”, “to support your immune system”, “prevent muscle waste” and even “prevent cancer.” It is well known in the scientific world that any evidence that does exist to substantiate these claims is weak and limited.

Up until recently there has been no formalized regulation on these products internationally or nationally. Anybody can produce a range of supplements, under any conditions, anywhere. There is no regulation governing who is producing them, under what conditions, how they are being marketed or what claims are made on their packaging. You can certainly see this if you walk down the aisle of any major supermarket or pharmaceutical outlet, the growth in this industry over the past 5 years has been phenomenal. Some local producers manufacture as many as 260 products. Even more frightening is the risk of contamination. It is documented that 1 in 4-5 products especially in the fat-cutters and muscle gaining genre are contaminated, often with something illegal or harmful to the athlete. Yet, we see more and more schoolboys succumbing to the lures of these labels. Recent testing during Craven Week has documented and highlighted the seriousness of this problem in school boys.

Thankfully in the next 2 years this is will slowly change as the Complementary Medicines Code comes into effect. The act will require manufacturers to follow stringent guidelines in production, packaging and marketing, it also requires that efficacy of each product or claim is scientifically backed and then verified by an independent board. Thankfully many of these products will then disappear off the shelves.

These regulations will take a while to come into effect in our South African market. In the meanwhile we need to protect ourselves from the temptation to get “bigger” and the risks that presently go with these supplements. We need to seek out the proper science and educate ourselves as to our real nutritional needs.

Although only a small part of a properly formulated diet, I would like to touch on protein requirements as this is the most widely used supplement in school boys at the moment.

The table below collaborated on by sports scientists and sports institutes all over the world, will allow you to calculate your protein requirements, based on your body weight and your level of exercise.

Group	Protein intake (g/kg/day)
Sedentary men and women	0.8-1.0
Elite male endurance athletes	1.6
Moderate-intensity endurance athletes (a)	1.2
Recreational endurance athletes (b)	0.8-1.0
Football, Rugby, power sports	1.4-1.7
Resistance athletes (early training)	1.5-1.7
Resistance athletes (steady state)	1.0-1.2
Female athletes	~15% lower than male athletes

(AIS, 2014)

- (a) Exercising approximately four to five times per week for 45-60 min
- (b) Exercising four to five times per week for 30 min at  $<55\% \text{VO}_{2\text{peak}}$

Have a look at the table below and calculate how much protein on average you are eating in a day, generally you will find that you are already exceeding your needs and there really is there is no need for extra protein supplementation.

Each item listed in that quantity contains 10g of protein

Animal Foods	Plant Foods
2 small eggs	4 slices (120 g) wholemeal bread
30 g (1.5 slices) reduced fat cheese	3 cups (90 g) wholegrain cereal
70 g cottage cheese	2 cups (330 g) cooked pasta
1 cup (250 ml) low-fat milk	3 cups (400 g) cooked rice
35 g lean beef, lamb or pork (cooked weight)	3/4 cup (150 g) lentils or kidney beans
40 g lean chicken (cooked weight)	200 g baked beans
50 g grilled fish	120 g tofu
50 g canned tuna or salmon	60 g nuts or seeds
200 g reduced fat yoghurt	300 ml soy milk
150 g light fromage frais	100 g soy meat

(AIS, 2014)

Now you have done this exercise, you will realize that you don't need it. Apart from the risks involved in purchasing such products as well as the money you may be spending on the protein supplement you are also putting your body at risk in the following ways by having an excess of protein in your diet:

- Decreasing your bone mass
- Compromising your kidney function
- Crowding out the other important nutrients
- Increasing your fat intake
- Increasing your fluid needs

Please think twice before buying the next pack of protein. Get advice on following a proper balanced sports diet and hydration programme.

Good Luck

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