

Guide to supplements

There is a difference between supplement and replacement. Using shakes, bakes, powders and pills to replace meals is something I oppose vehemently. The starting point should always be a healthy balanced diet as covered in our 3 steps to healthy eating plan.

There may be a need in certain circumstances to supplement your diet with certain vitamins, minerals or nutrients. But, think carefully before you do so and ask these three questions before buying a supplement:

1. Who is making money from this?
2. Will I get banned if I get tested positively for harmful substances?
3. Can I get this nutrient from normal food?

The multi- billion dollar supplement industry advertises heavily in health, fitness and sport magazines. You are being constantly bombarded with messages to buy things that are unnecessary. A review of sports drinks in the British Medical Journal showed the “disturbing lack of evidence” to support the claims made for footwear, drinks and food stuffs (1).

You must be aware of the risk of contamination of spiked products: look carefully at where they are produced, packaged and distributed. Substances such as sawdust, metal filings and plastics have been found in tubs of “whey protein” sourced in China!

“Energy Drinks” may contain a lot of caffeine which could have an effect on your sleep patterns. Anything that disturbs your sleep will reduce your energy, rather than increase it. Short term caffeine intake as a supplement may help increase your stamina, but its effect on strength training is limited (2).

That being said, there may be a time and place for you to have some supplements if you are deficient in certain areas.

Fish oils: Eat fish, rather than fish oils. A systematic review of research has shown the benefits of eating 2-4 portions of oily fish a week (most of us eat less than one portion), but the benefits were not found within fish oil supplements. (This was only looking at cerebrovascular risk (stroke),but demonstrates the point. No good evidence for benefit of fish oils in athletes.)

Vitamin D: A lot of research is done on Vitamin D, which is important in helping the uptake of calcium from the diet and helping increase bone mineral density. When you are doing resistance training you will be placing stress upon your skeleton which will respond by becoming stronger if you eat correctly.

Vitamin D is produced from food or by the skin when exposed to sunlight. Non Caucasian populations living in low sunlight climates, older populations and indoor workers (or athletes) may need to supplement Vitamin D (4).

Iron: According to the World health Organisation, iron deficiency is the world's biggest nutrient deficiency. This is most prevalent in the developing world, but it is also present in about 10% of the developing world's population (5). Iron is important in helping create cell growth and forms part of haemoglobin which transports oxygen around the bloodstream.

Iron is found in foods such as red meat, fish, poultry as well as legumes and beans. Having vitamin C and meat helps increase the amount of iron absorbed by the body. Having whole grains, tea and calcium decreases the absorption.

Some females take iron supplements due to feeling fatigue and self-diagnosing anaemia. You should consult a Doctor about fatigue, as it could be due to another problem. Iron overload can kill small children so DO NOT SUPPLEMENT without medical supervision (6).

Whey protein: This is the one supplement that you may wish to consider if you are over 18 years old and are consuming 1.5g of protein per kg of body weight through your diet already. A meta-analysis (where researchers compile the results from a lot of different studies) of the effects of protein supplementation with resistance training showed quite positive results for those people who took additional protein (7).

The effects of additional supplementation included greater leg strength and greater fat free mass, there was no conclusive proof of an increase in muscle size. This is important for those athletes who wish to get stronger without getting bigger.

The effects of protein supplementation were greater in people who had already been training, compared to beginners. The study also showed that the subjects were taking an average of 120g of protein a day before supplementation.

The average amount of protein supplement taken a day was 42g, but this varied quite a lot. I would suggest that if you do want to take a protein supplement that you get it from an official supplier that has control of where the batches are produced and tested. You can then use unflavoured protein powder to augment existing foods. For example, adding a scoop to porridge oats, for breakfast, alongside some fresh fruit.

In conclusion: supplements should only be taken with medical advice, except for protein which should come from an approved supplier.

Diagram 5: The Ultimate Supplement



References

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