



## Supplements

### Part 1 – Vitamins & Minerals

My top recommendations for vitamin/mineral supplements to assist in fat loss – within the context of good eating and quality exercise:

1. Vitamin E - excellent fat-soluble antioxidant & helps slow cell damage
2. Vitamin B – B1, B2, B3, B5, B6, B7, B9 & B12 – High % dosages, help carbs & fat breakdown, antioxidant, HDL cholesterol boosting, hormone production (especially testosterone), regulating sleep & mood.
3. Vitamin D – hormone-like properties & helps bone growth. Most people in the UK are low. Sunshine exposure & oily fish are great sources, but you will be helping your metabolism if you take a supplement too - about 2000-5000iu daily.
4. Zinc – 30mg/day, good for thyroid function support, helps combat Type 2 diabetes & helps reduce the symptoms of a cold (and yes, I haven't taken my own advice. I have a stinking cold and I didn't have any zinc in to take – doh!).
5. Selenium – 200 micrograms daily. Supports thyroid function & is an antioxidant.
6. Calcium Citrate – bones. 200mg/day, preferably in 2 smaller doses.
7. Alpha Lipoic Acid – antioxidant that helps cell energy production & increases insulin sensitivity. 100mg/day.
8. Chromium – helps metabolic processes that regulate blood sugar. 200micrograms daily.

### Part 2 – BCAAs

Branch Chain Amino Acids are the molecules that go into building protein and protein is the most abundant thing in your body after water. They are long molecule chains, and as the name suggests, that have branches off the side! They are useful to the fat loss seeker in a number of ways. Firstly, they are great as an energy source. BCAAs can enter the Krebs Cycle (energy production in your cells) in 4-5 different ways. Now I get that this may not mean much to you, but carbohydrates, your classic 'good' energy source can only enter the Krebs Cycle in a couple of ways, so BCAAs are better energy sources when compared with carbs. Secondly, BCAAs contain the building blocks for neurotransmitters (brain chemicals) that control how you feel & act. For example, if you are low in serotonin (self-esteem/feel good about the world), you are likely to crave starch and/or salt. This can be alleviated to some degree by tryptophan and 5HTP, both of which are found in BCAAs. And I know from personal experience that using BCAAs takes the edge off my cravings, particularly in the evenings. Not the perfect answer, but I have found them to make my cravings more manageable. BCAAs also help your body control blood sugar and are used to help you build/repair muscle over being turned into fat because BCAAs are more difficult to convert to fat than carbs. So, where can you get these BCAAs? Well, you can buy BCAA supplements, but you can also get plenty from protein such as meat and fish, whey/pea/hemp protein, eggs and dairy. For vegetarians, soy protein doesn't contain BCAAs but it does contain other amino acids, and there isn't much literature on Quorn, so supplementation or protein shakes are the answer. If anyone wants to know more about what to look for in BCAA supplements, let me know.

### Part 3 – Omega 3

Omega 3 contains fatty acids that act as anti-inflammatories in the body – there are lots of dietary sources, but fish oil is probably the best quality. It is linked to maintaining heart, blood vessel health, helping brain function, promotes the metabolism of dietary fat and cholesterol and may help joint flexibility. Eating oily fish (salmon, mackerel, sardines, tuna) once a week is also perhaps the best

thing you can do! But if you're looking for supplements, find one that has >1000mg of Omega-3 - check the label for ideally a minimum of 500mg EPA/250mg DHA.

Omega 6 is an essential fatty acid humans also need, but the Western diet provides almost too much of this (sources are grains, corn oil, sunflower oil and more). Too much Omega 6 can be inflammatory and so promote cell damage and possibly accelerate growth of cancer cell for example, so don't choose an Omega-3 with added Omega-6!