

Follow-up supplement information from Dr Greenblatt's "Answers to Anorexia - Malnourished Minds" webinar hosted by Eating Disorders Families Australia 9/7/22

For those who have not read the more extensive information in Dr Greenblatt's books, a summary of his guidelines and how to achieve these safely within Australian availability is provided below. This summary was produced in accordance with Dr Greenblatt's webinar guidelines and in consultation with an Australian Accredited Practising Dietitian and an Australian Pharmacist. Please note that ingredients for these supplements outside Australia may vary so please check all labels carefully.

Zinc – Dr Greenblatt's research has shown that zinc deficiency is widespread in those with eating disorders and particularly in those following a vegetarian/vegan diet. Zinc is a problematic nutrient to measure and if serum zinc (via a blood test) is low, then a definite zinc deficiency is present. However, zinc deficiency may also be suspected in those with a high Alkaline Phosphatase (ALP) which comprises part of a liver function (LFT) screen and those with a low white cell count (WCC), part of a full blood (FBE) screen. His recommendations include:

- **Young children and early adolescents 15mg Zinc, twice per day**
- **Older adolescents and adults 30mg Zinc, twice per day**

Generally, these doses are very safe for the first three months of treatment, and there are many options available over the counter at the local pharmacy. A reminder to take after food, to minimise stomach upset.

If Zinc supplementation is to be given long term (> 3 months), particularly when the patient is weight restored and eating animal products and no longer malnourished, it is important to ensure that ongoing zinc supplementation includes the addition of copper as large doses of zinc can interfere with copper absorption and cause a copper deficiency. These are more difficult to obtain in Australia, but some good options are:

Swisse daily immune support™ (25mg Zinc + 1 mg Copper)



Blackmores Macu-vision™ (40mg Zinc and 1.3mg Copper)



Both are available over the counter in the pharmacy. NB when looking for an appropriate dosage it is vital to look for the **elemental** component of the nutrient. Sometimes only this is listed and on other labels it might be listed in brackets on the label.

Vitamin B12 is also vital especially for those on a vegetarian/vegan diet as it can only be obtained in animal products and is not present in ANY plant-based products. All vegans, regardless of how well they eat, require vitamin B12 supplementation. Dr Greenblatt did not give a specific B12 dosage but Vit B12 is very safe even in large amounts. It is best to get B12 via an individual dose rather than as part of a multivitamin or B complex as this way the dose received is much higher and it avoids the issue of getting other nutrients that can be harmful in large doses. The main one of concern is Vitamin B6 which, unlike all other B vitamins, can be toxic in large quantities.

There are many Vitamin B12 supplements available over the counter, see list attached.



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Dr Greenblatt mentioned **Vitamin B1** (thiamine) as being very important for POTS disease (Postural Orthostatic Tachycardia Syndrome) – he did not give a specific dosage but once again, thiamine is relatively safe and best obtained via an individual dose such as Nature's Own Vit B1™ 250mg.



Dr Greenblatt also recommended **E-EPA** primarily as fish oil tablets/liquids at a dose of 3g/day split into two doses. These are readily available at the pharmacy but can be a challenge to take as they tend to be large in size or unpleasant as a liquid to taste, so perhaps added into smoothies, soups etc might increase tolerance. For those who cannot tolerate fish oil, a vegan/vegetarian alternative high in omega 3 and 6 essential fatty acids (EFA's) is Flax Seed oil.

For some suitable Fish Oil and Flax Seed oil options, see list attached.

Although a general multivitamin is a good idea for our malnourished loved ones, these are unregulated in Australia and frequently contain excessive doses of some nutrients and ineffective doses in others. One of the main issues is the amount of Vitamin B6 added to these supplements (B6 is very cheap!). Any product containing >50mg B6 comes with a warning on the label but toxic levels can be experienced in the continual taking of much lower doses. Vitamin B6 is often added to magnesium supplements, hair, skin and nails supplements and even iron and Zinc supplements so it can easily add up if several of these are taken. Toxicity causes a peripheral neuropathy, initially experienced as tingling and loss of feeling (falling asleep) of hands and feet and can ultimately lead to losing function in these limbs. It is advised to keep B6 levels <10mg per day total and hence that rules out pretty much all B complex vitamins and greatly limits a lot of multivitamin supplements. NB. This is not an issue if supplementation is short term but if to continue for >6 months, levels can build up.

Some examples of suitable multivitamins include:

Centrum for Men™ and Centrum for women™ (not 50+ versions)



Cenovis multivitamin and mineral™ (but no other Cenovis multivitamins in the range)








Blood tests/what to ask the doctor for:



- LFT's (to capture ALP)
- FBE (to capture WCC)
- Coeliac screen (to rule out coeliac disease)
- Active B12 (this is a much more accurate measure of B12 stores than total B12)
- Homocysteine (will also help diagnose a B12 deficiency)
- Zinc
- Copper (if on long term zinc therapy)
- B1 (thiamine) if POTS is suspected
- NB. B1 and B6 get done at the same time so if ordering a B1, worth getting B6 as well
- B6 if on long term multivitamin therapy that contains >10mg B6 per day
- Iron studies always recommended

More comprehensive information can be found in Dr Greenblatt's books.

Fish Oil Supplements available over the counter at the pharmacy (suitable to meet Dr Greenblatt's recommendations)

BRAND	PICTURE	RECOMMENDED DOSE	EPA/DHA content (per recommended dose)
<p>Ethical Nutrients Hi-strength Omega 3™ Concentrated fish oil liquid.</p> <p>Fruit punch flavour</p>		<p>5.0 ml per day (1 metric teaspoon) 4.6g</p>	<p>EPA 1900mg (1.9g) DHA 927mg</p>
<p>Blackmores Omega Triple™</p>		<p>3 x 1.5mg capsules</p>	<p>EPA 1620mg (1.62g) DHA 1080mg (1.08g)</p>
<p>Swisse High Strength Wild Fish Oil™</p>		<p>3 x 1.5g capsules</p>	<p>EPA 810mg (0.81g) DHA 540mg</p>
<p>Healthy Care Triple Strength Fish Oil™</p>		<p>2 x 1500mg (1.5g) capsules</p>	<p>EPA 1200mg (1.2g) DHA 600mg</p>
<p>Wagner Triple Strength Omega -3 Fish Oil™</p>		<p>2 x 1500mg (1.5g)</p>	<p>EPA 1080mg (1.08g) DHA 720mg</p>

Flax Seed oil is an alternative for those who cannot tolerate fish oil and is a vegan/vegetarian source of omega 3 and 6 fatty acids (EFA's)

BRAND	PICTURE	RECOMMENDED DOSE	OMEGA 3 and 6 EFA's content (per recommended Dose)
Thompsons Flax Seed Oil 1000mg™		3 x 1000mg (1g) capsules	<p>Omega 3, 1725mg (1.725g)</p> <p>Omega 6, 360mg (0.36g)</p>
Go Flaxseed Oil 1,500mg™ Hi Potency		2 x soft gel capsules 1500mg (1.5g)	<p>Omega 3, 1650mg (1.65g)</p> <p>Omega 6, 466mg (0.466g)</p>