

Treatment Plan

For: Marita Smith

Date: 30/05/24

Summary of key issues discussed:

1. Recent blood test results review:

Good **Vitamin D** (134), **Iron Studies** (with **Ferritin** 86)

Low **Vitamin B12** - 348 (optimal 600+)* *needed to make healthy red blood cells, nerve function and metabolism of protein and fats, symptoms include fatigue, depression, poor concentration/memory*

Low/normal **Zinc** - 14.6 (optimal ~17)* *supports thyroid health, immune/skin/mental health*

Suboptimal **TSH** - 2.62 (optimal 0.5 - 1.5) *shows the thyroid is being asked to make more hormones*

Low **T4** - 12 (optimal is 15 -17) *the inactive/storage thyroid hormone, its production is dependent on nutrients such as iodine, selenium, tyrosine, zinc; suboptimal level leads to hypothyroidism symptoms.*

Low **T3** - 4.1 (optimal is 5.5 - 6) *the biologically active thyroid hormone, this is mostly made from the T4 converting into the T3 (this process also nutrient dependent); suboptimal level leads to ongoing hypothyroidism symptoms.*

High **Reverse T3** - 426 (optimal 200 - 250) *the inactive form of T3 made from T4. Too much of the T4 is being shunted into the Reverse T3 pathway, instead of active T3 pathway. This naturally lessens the amount of active T3 made from T4 for the body to use. Reverse T3 also blocks up the T3 receptor sites so the real/active T3 can't 'dock in' to cells, leading to hypothyroidism symptoms.*

Positive/high **TPO antibodies** 121 (optimal <6) *'anti-thyroid' immune factors destroying thyroid cells/tissue*

Positive/high **TG antibodies** 52 (optimal <4) *'anti-thyroid' immune factors destroying thyroid cells/tissue*

Both these antibodies reflect Hashimotos autoimmune hypothyroidism, and create a lot of oxidative stress and inflammation within the thyroid gland itself. This then interferes with the health of thyroid and how well it can make optimal levels of T4.

Low **White Cell Count** 3.9 (optimal 5 - 7.5) *can be affected due to chronic immune activity of Hashimotos*

2. Discussed suspected drivers of high **Reverse T3** level

Common factors that increase the conversion of T4 into Reverse T3 include adrenal stress (burnout), and prolonged/chronic physical and physiological stress. This creates cellular stress/a danger response in the body. The thyroid sees these situations as a reason to 'slow down' as a response and shunt the T4 off to reverse T3 instead of active T3. This continues the various symptoms of hypothyroidism.

Some factors perceived by the body as 'stressors' for you may include: prolonged 'fasting' and/or a restricted eating window, specific nutrient insufficiencies/deficiencies, training in a fasted state (esp in context of low energy availability), inadequate refuel/recovery, inflammation, depression/mental/emotional (work/life stress).

Initial focus areas:

1. **Hashimotos/subclinical hypothyroid gland function:** Support the overall health and function through repletion of the thyroid supportive nutrients (ie. iodine, selenium, zinc, tyrosine, Vitamin A, B-vitamins) and see how well your thyroid function responds to this support.

With a T4 level of 12, you likely have low iodine levels. Before introducing any iodine supplement (especially with Hashimotos antibodies) it's suggested you get this tested as a benchmark. As mentioned, I have arranged this (home collection) urine test through *Nutripath Functional Pathology*. You should receive an email from them to finalise the test order.

*NB: Stop taking the **SFM Xcell** supplement (see Prescription) 3-5 days prior to doing the iodine test (as it contains some iodine) so it doesn't skew the results.*

2. **Immune modulation:** Support immune system regulation to decrease thyroid antibody production down. Reduce inflammation and damage to the thyroid gland.
3. **Support nervous system:** Consider reducing the amount of 'stress' on the body (and mind) as much as possible. For now, consider switching out HIIT or cardio based workouts for long walks and yoga(based) workouts to help regulate your adrenals and nervous system.

Prescription

You should have received an 'invite email' from the online dispensary service I use, [Vital.ly](https://vital.ly). Please follow the links to log in where you'll see your personalised prescription. Purchase your products directly from Vital.ly and they'll be posted to you.

Product	Why I've prescribed it	How to take it	How long to take it for
S.F.M Xcell	Thyroid, metabolic and nervous system support. Contains activated B-vitamins, thyroid nutrients (iodine, selenium, tyrosine, zinc) and immune modulation factors (reducing thyroid antibodies). Also supports healthy neurotransmitter synthesis and nervous system function.	Take 1 tablet, 2 x day with meals.	Until next advised
Imrex	Specific formulation for autoimmunity/reducing thyroid antibodies.	Take 1 capsule, 2 x day with meals. Contains caffeine (Green tea) so if you feel this affects your sleep take your 2nd dose earlier in day	Until next advised
MagCalm	Magnesium, glycine and taurine combined with relaxant herbs to support your stress response.	Mix 2 scoops into water, consume 1-2 hours before bed.	Until next advised
Clinical Lipids	Highly purified & concentrated fish oil for omega 3 essential fatty acids (EPA/DHA). Helps improve mood, reduce stress and lower inflammation in the body.	Take 1 capsule, 2-3 x day with meals. REFRIGERATE AFTER OPENING	Until next advised

All prescribed products are safe to use whilst on your antidepressant.

Kids Omega; [UltraClean OmegaFactors for Juniors](#) (chewable capsules) 1 capsule daily.

Next consultation

Please book a Follow-Up Consultation (30min) after you've been taking your prescribed products for 4 weeks.