

Treatment Plan for Lisa DeRossi

Date : 20.02.25



Patient Health Priorities : Reduce menstrual bleeding. Improve thyroid function. Reduce cholesterol. Improve iron status. Improve constipation.

Timeline :

Short term

- Monitor effects of Mirena in reducing menstrual bleeding. Follow up with herbal support if necessary.
- Support thyroid hormone production and conversions through provision of nutrients required for production and conversion of thyroid hormones, and reduction of thyroid antibodies through nutritional supplementation, herbal medicine and dietary strategies
- Support cholesterol metabolism through dietary strategies and herbal medicine
- Improve iron status through nutritional supplementation and dietary strategies
- Improve constipation by increasing gastrointestinal motility through dietary and herbal strategies
- Improve fatigue through support of thyroid function, improvements in iron metabolism and herbal medicine

Long Term

- Support immune health to reduce thyroid antibody levels
- Support gastrointestinal microbiome to improve thyroid hormone conversion

Nutrition Overview for Lisa DeRossi

Date : 20.02.25



Include the following foods...		Target
Protein	Optimal sources – poultry (chicken, turkey, duck), seafood, eggs Plant sources – quinoa, chickpeas, lentils, nuts, seeds, peas, beans, tempeh, hemp seeds, hemp protein powder Limit – dairy, red meat, processed meats (bacon, sausages, deli meats) Avoid – soy protein	25–30g per meal
Fibre	Soluble fibre – fruit and vegetables, barley, seed husks, flaxseed, psyllium, oat bran, legumes (lentils, peas, dried beans, soy) Insoluble fibre – wheat bran, corn, rive, skins and fruit and vegetables, dried teas, nuts, seeds, wholegrain foods Resistant starch – unripe banana, lentils, unprocessed cereals and grains, cooked and cooled potato and rice	25g/day
Water		2L/day
Essential Fatty Acids	Fatty fish – salmon, mackerel, anchovies, sardines, herring flaxseed/linseed, chia seeds, walnuts	2–3 serves (150g) of fish per week
Iron	Haem iron sources : meat (beef, lamb, pork, kangaroo), poultry (chicken, turkey, eggs), seafood (salmon, sardines, tuna) and organ meats (liver, kidney, pate) Non-haem sources : legumes (mixed beans, lentils, chickpeas), dark green leafy vegetables (spinach, silver beet, broccoli), tofu, nuts, seeds, dried fruit, wholemeal pasta and bread	18mg/day
Folate	Dark green leafy vegetables, legumes, rice, avocado, beef liver	400µg/day
Vitamin A	Eggs, liver (pate), butter, cod liver oil, cod, salmon, green leafy vegetables, apricots, pumpkin, sweet potato, carrots	700µg/day

Eliminate or limit the following foods...	
Saturated Fat	Reduce - Fried foods, dairy products, coconut oil, butter, takeaway foods, bakery goods, commercial biscuits and crackers
Sugar	Reduce - Soft drink, juice, lollies, ice cream, honey, some breakfast cereals
Soy	Eliminate
Gluten	Eliminate - wheat (including spelt), barley, rye, triticale and oats
Dairy	Eliminate
Alcohol	Reduce / be mindful of intake
Goitrogens	Reduce - cabbage, Brussels sprouts, broccoli, cauliflower, mustard greens, kale, and turnip
Carbohydrate restriction	Avoid

Track your intake using the Easy Diet Diary app (free download)

Prescription Overview for Lisa DeRossi

Date : 20.02.25



PRESCRIPTION	Breakfast	Lunch	Dinner	Bedtime
Herbal Prescription with food	5mL with food	5mL with food	5mL with food	
B12 Spray	1 spray			
Myo-inositol	1 scoop		1 scoop	
Selenium		1		
Iron	1 every second day			
Magnesium glycinate				As required
Vitamin D	Weekly as prescribed by GP			

Other reminders:

- Reduce environmental chemical exposure

Testing Recommendations

- **Iron Studies** (iron, ferritin, transferrin, total iron binding capacity, transferring saturation) – due to the importance of iron as a cofactor in thyroid hormone production and history of low ferritin
- **Urinary Iodine (corrected for creatinine \$74)** – due to it's essential role in thyroid hormone production. Deficiency is associated with increased TSH and development of thyroid nodules can occur in deficiency or excess. Iodine excess promotes autoimmune thyroiditis.
- **Lipids** – due to previously elevated cholesterol, LDL cholesterol and non HDL cholesterol (12.12.23)
- **Gastrointestinal Microbiome Mapping (\$229)** – gastrointestinal dysbiosis can be an underlying cause of autoimmune thyroid conditions, and constipation
- **MTHFR gene (\$69 blood test or \$125 cheek swab)** – Methylenetetrahydrofolate reductase (MTHFR) is a key regulatory enzyme in folate and homocysteine metabolism. Polymorphism in the gene coding for this enzyme can results in changes to neurotransmitter production, methylation, detoxification, collagen production and cardiovascular function. This can be an underlying cause of autoimmunity due to methylation impairment increasing risk of immune cell autoreactivity which increases the risk of autoimmune disease.
- **Hair Tissue Mineral Analysis (\$270)** – Measures mineral composition of the hair to assess nutrients status and environmental chemical exposure as an underlying cause of thyroid dysfunction and autoimmunity. Exposure to chlorine, fluoride and pesticides affects thyroid function. *Note – this test cannot be performed on coloured hair. 10-12 weeks of regrowth (uncoloured) will be needed to collect hair cut close to the scalp. Pubic hair can be used as an alternative.*

Detailed goals and rationale for Lisa DeRossi

Date : 20.02.25

HEALTH GOAL	RATIONALE & INFO	DOSE
Reduce thyroid antibodies by eliminating gluten	<p>There is an association between gluten sensitivity and autoimmune thyroid disease due to shared immunopathogenetic mechanisms and genes. Evidence indicates that the elimination of gluten can decrease thyroid antibodies (TgAb and TPOAb) and improve TSH and T4 levels, by reducing inflammation, reducing intestinal permeability and improving gut microbiota.</p> <p>The molecular structure of gliadin, the protein portion of gluten, closely resembles the structure of the thyroid gland tissues. When gliadin leaves the gut and enters the bloodstream, it is recognized as a foreign protein that stimulates the production of antibodies. These antibodies tag the gliadin but also attack the thyroid tissue, meaning the immune system is attacking the thyroid in individuals with autoimmune thyroiditis.</p> <p>Eliminating gluten 100% from the diet will reduce the antibody response and allow for the intestinal lining to heal from chronic inflammation. Healing the intestinal tract lining decreases intestinal permeability, reducing the potential for larger protein molecules to leak into the blood stream and trigger an inflammatory autoimmune response.</p> <p>Gluten is found in wheat (including spelt, durum, kumquat, dinkel), barley, rye, malt and triticale. Oats are usually contaminated with gluten during production. When undertaking a gluten free diet it is important to be careful of cross contamination.</p> <p>Grains that do not contain gluten, include rice, corn/maize, buckwheat, millet, potato, arrowroot/amaranth, tapioca/cassava, sago, lentil, pea, lupin, quinoa</p> <p>https://pubmed.ncbi.nlm.nih.gov/9872614/ https://pubmed.ncbi.nlm.nih.gov/11768252/ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10405818/ https://pubmed.ncbi.nlm.nih.gov/30060266/</p>	Eliminate

Eliminate dairy	<p>Dairy products are inflammatory and promotes growth in the body. Eliminating dairy can be beneficial in patients with nodules or goitre</p> <p>Patients with Hashimotos have a higher incidence of lactose intolerance, and a greater sensitivity to the proteins found in dairy which may lead to inflammation</p> <p>https://doi.org/10.1007/s12020-013-0065-1</p>	Eliminate
Improve thyroid hormone function by reducing soy	<p>Soy or soy enriched foods can reduce T4 absorption and interfere with thyroid hormone action. Soy can increase autoimmune thyroid disease. Soy is goitrogenic.</p> <p>Small amounts of organic soy is not an issue. Soy is not an issue when iodine is adequate.</p> <p>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4740614/</p>	Reduce/limit intake
Optimise protein intake	<ul style="list-style-type: none"> • increases satiety by increasing hunger-inhibiting hormones (GLP-1, CCK and PYY) and suppress ghrelin. • increases energy expenditure through increases in diet-induced energy expenditure, basal metabolic rate and resting metabolic rate. • Increases muscle mass and prevents muscle loss when ageing <p>Minimum intake per day to avoid deficiency : 46g/day for women 19-70 years</p> <p>Recommended amount for weight management : 1.2 to 1.6g of protein per kg of body weight per day or 25-30g of protein per meal</p> <p>Research : https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7539343/ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6087750/ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9998208/ https://doi.org/10.3945/ajcn.114.084038</p>	<p>Target : 1.2 to 1.6g of protein per kg of body weight per day or 25-30g of protein per meal</p>

<p>Optimise gut microbiome by increasing dietary fibre to 25g per day</p>	<ul style="list-style-type: none"> • Balance gut microbiome to support immunity, support thyroid hormone conversion and reduce inflammation • Improve bowel function and hormone metabolism – excess hormones are bound to fibre and excreted during bowel movements • improves satiety which help with weight loss, also bind fats and lowers absorption of glucose through delaying gastric emptying • Soluble fibre reduces cholesterol reabsorption, improves hormone elimination and improves satiety, improves faeces bulk • Insoluble fibre bulks faeces, improves constipation and speeds up digestion • Resistant starch improves microbiome health to produce short chain fatty acids, which may protect against colon cancer and lower cholesterol levels <p>Research – https://www.mdpi.com/2072-6643/12/3/859/htm https://pubmed.ncbi.nlm.nih.gov/33803407/</p> <p>Optimise dietary fibre</p> <ul style="list-style-type: none"> • <i>Soluble fibre – fruit and vegetables, barley, seed husks, flaxseed, psyllium, oat bran, legumes (lentils, peas, dried beans, soy)</i> • <i>Insoluble fibre – wheat bran, corn, rive, skins and fruit and vegetables, dried teas, nuts, seeds, wholegrain foods</i> • <i>Resistant starch – unripe banana, lentils, unprocessed cereals and grains, cooked and cooled potato and rice</i> <p>https://www.eatforhealth.gov.au/nutrient-reference-values/nutrients/dietary-fibre</p>	<p>Aim for 25g per day from a variety of sources of fruit, vegetables legumes, seeds and wholegrain.</p> <p><i>Increase fibre intake gradually to avoid gastrointestinal side effects.</i></p> <p><i>Track your intake using the Easy Diet Diary app (free download).</i></p>
<p>Optimise water intake to 2L per day</p>	<p>Improve bowel function by increasing water intake to normalise stool consistency and transit times (which will improve cholesterol and hormone elimination)</p> <p>This is particularly important when increasing fibre in the diet. Fibre increases without adequate water intake may lead to constipation</p>	<p>2L per day</p>

<p>Improve iron status through dietary strategies</p>	<ul style="list-style-type: none"> • Improve production of healthy red blood cells, in the formation of haemoglobin, and in oxygen transport within the body by correcting iron deficiency • Improve immune function through increasing iron availability for macrophage activity and T lymphocyte proliferation • Improve energy levels by supporting ATP production • Improve thyroid hormone synthesis <p>Research : www.Ncbi.nlm.nih.gov/pmc/articles/PMC9219084/ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7193469/</p> <p>Optimise iron rich foods to improve iron status</p> <p>Haem iron sources : meat (beef, lamb, pork, kangaroo), poultry (chicken, turkey, eggs), seafood (salmon, sardines, tuna) and organ meats (liver, kidney, pate)</p> <p>Non-haem sources : legumes (mixed beans, lentils, chickpeas), dark green leafy vegetables (spinach, silver beet, broccoli), tofu, nuts, seeds, dried fruit, wholemeal pasta and bread</p>	<p>Recommended Daily Intakes</p> <p>Female 14-18 years :</p> <p>15mg/day</p> <p>https://www.nrv.gov.au/resources/nrv-summary-tables</p>
<p>Optimise Vitamin A intake</p>	<p>Vitamin A is required for thyroid hormone receptor health, allowing receptors to respond to hormones.</p> <p>Vitamin A is also required for vitamin D metabolism.</p> <p>Only a small amount is required and can be easily obtained from the diet</p> <p>Food sources : eggs, liver (pate), butter, cod liver oil, cod, salmon, green leafy vegetables, apricots, pumpkin, sweet potato, carrots</p> <p>https://pubmed.ncbi.nlm.nih.gov/23378454/</p>	<p>Target : 700µg/day (women)</p>

<p>Improve Vitamin D status through supplementation</p>	<p>Improves immune function through improved gene expression of antimicrobial peptides Improves mood through improved regulation of serotonin Reduces gastrointestinal inflammation Reduces the risk of autoimmune disease Deficiency is associated with higher musculoskeletal pain</p> <p>Supplementation : Vitamin D is a fat-soluble vitamin, meaning it needs fat for proper absorption from your gut into the bloodstream. Taking your vitamin D supplement with a meal or snack that contains healthy fats can significantly improve absorption. Examples of healthy fats include avocado, nuts, seeds, olive oil, and fatty fish.</p> <p>Dietary Vitamin D sources: fatty fish, eggs, yoghurt, beef liver, chestnut mushrooms, pork chops, fortified milk</p> <p>Evidence: https://doi.org/10.1097/MD.00000000000012662 https://doi.org/10.5694/mja11.10301</p>	<p>Continue with vitamin D supplementation as prescribed by your GP</p>
<p>Decrease inflammation and improve microbiome through decreasing dietary saturated fats</p>	<p>Excess saturated fats stimulate NF-κB signalling to increase inflammatory cytokines Saturated fats negatively alter microbiome by decreasing diversity, gram-negative species and short chain fatty acid production, while increasing pathogenic species</p> <p>Saturated fats are found in fried foods, dairy products, coconut oil, butter, takeaway foods, bakery goods, commercial biscuits and crackers</p> <p>Research: https://doi.org/10.1093/advances/nmz125</p>	

<p>Reduce inflammation by optimising dietary intake of essential fatty acids</p>	<p>Include these sources of essential fatty acids in your diet on a regular basis:</p> <ul style="list-style-type: none"> • flaxseed/linseed • chia seeds • walnuts • Hemp seeds, hemp seed oil <p>Increase Omega-3 intake by inclusion of fatty fish of 2-3 serves per week, with a serve being 150g. Select fish high in Omega-3, including mullet, salmon (Atlantic or Australian), mackerel, sardine, rainbow trout, bream or silver perch.</p> <p>Research: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7875671/ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6117694/ https://doi.org/10.1111/j.1753-4887.2010.00287.x</p>	<p>Aim for 2-3 serves (150g) of fish per week</p>
<p>Reduce inflammation by reducing sugar intake</p>	<p>Reduce sugar – the high-dose fructose you get from desserts, honey, fruit juice, and dried fruit. There is no need to reduce fruit, as the fructose in fruit is lower dose and whole fruit contains fibre to slow the spike in blood sugar from fruit.</p>	

<p>Avoid or limit exposure to the following which can reduce thyroid function</p>	<p>Milk thistle (St Mary's Thistle, <i>Silybum marianum</i>) – contains silchristin which inhibits thyroid hormone transporter MCT8.</p> <p>Quercetin – can inhibit TPO and deiodinase enzymes to reduce conversion of T4 to T3, and blocks iodine uptake. Found in hayfever supplements. Taking under 500mg/day for a short period of time is ok. Long term use is not advised. https://academic.oup.com/endo/article.149/1/84/2454911 https://www.ncbi.nlm.nih.gov/pubmed/14757961</p> <p>Resveratrol – reduces the expression and activity of the NIS symporter and the uptake of iodine. Avoid high doses and long term use. www.ncbi.nlm.nih.gov/pubmed/28668442</p> <p>Environmental Chemicals including: Chlorine – (cleaning products, bleach, pool water, unfiltered water) Flouride (tooth paste, unfiltered water) – blocks iodine and decreases it's uptake Pesticides – block iodine uptake. Can results in goitre or hypothyroidism PCBs (flame retardant's, plastics, foam) – similar in structure to thyroid hormones, binds to thyroid receptors and blocks thyroid hormones from binding BPA (plastics) – disrupts T3 signalling pathways</p>	
<p>Goitrogens</p>	<p>Goitrogenic potency can be reduced by washing, soaking, boiling and cooking these foods.</p> <p>Avoid regular consumption of raw cruciferous vegetables such as cabbage, Brussels sprouts, broccoli, cauliflower, mustard greens, kale, and turnip.</p> <p>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4740614/</p>	

Avoid fasting or restrictive diets	<p>Energy and carbohydrate restriction may substantially reduce thyroid hormone activity – nutritional status and energy expenditure influence thyroid function centrally at the level of TSH secretion and deiodination.</p> <p>Calorie restriction is perceived by the body as starvation, which slows down metabolism and increases cortisol through the stress response. Cortisol can exacerbate the effects of hypothyroidism and Hashimotos.</p> <p>Focus on a balanced and nutrient rich diet with adequate calorie intake.</p>	
Herbal Prescription	<p>Reduce TSH, thyroid antibodies and improve T3 using thyroid modulating herbs</p> <p>Normalise the immune response using immunomodulating herbs</p> <p>Reduce inflammation systemically and in thyroid using anti inflammatory herbs</p> <p>Improve constipation by increasing bile production and flow in the intestines using a cholaretic and cholagogue</p> <p>Support energy levels through improvements in thyroid and adrenal function using adaptogen and adrenal tonic herbs</p> <p><i>Hemidesmus indicus, Schisandra chinensis, Zingiber officinale, Cynara scolymus, Nigella sativa, Glycyrrhiza glabra</i></p>	<p>5mL three times daily</p> <p>Take with food</p>
Selenium	<p>Provide cofactors for thyroid hormone production in both the thyroid and other tissue/cells, and conversion of T4 to T3</p> <p>Antioxidant protection for thyroid cells</p> <p>Shown to reduce TPO antibodies and lower TSH</p> <p>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5307254/</p>	

<p>Bioceuticals B12 sublingual spray</p>	<p>B12 is a crucial vitamin for overall health. It plays a vital role in several bodily functions, including:</p> <p>Red blood cell production: B12 helps in the formation of red blood cells, which carry oxygen throughout the body.</p> <p>Nervous system function: B12 is essential for maintaining the health of the nervous system, including the brain and spinal cord.</p> <p>DNA synthesis: B12 is involved in the process of DNA synthesis, which is crucial for cell growth and repair.</p> <p>Energy metabolism: B12 assists in the breakdown of fatty acids and amino acids, providing energy for the body.</p> <p>Deficiencies in B12 can lead to a variety of health problems, including:</p> <ul style="list-style-type: none"> Anemia Fatigue Weakness Numbness or tingling in the hands and feet Balance problems Cognitive difficulties <p>It's important to consume enough B12 through dietary sources or supplements to maintain optimal health.</p>	<p>1 spray under the tongue once daily in the morning</p>
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