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TREATMENT PLAN FOR: Ellie Alderton Date: 29/01/25

Health Goals	 Increase insulin sensitivity by utilising compounds such as chromium, inositol, berberine, as well as weight training, and a higher protein diet. Detoxify the liver to ensure it's healthy function, reduce inflammation, support glucose control, improve skin health. Shift dietary habits to increase protein, non-starchy vegetables to support insulin sensitivity, support bowel and microbiome health, increase detoxification ability, assist weight release. -and eliminate gluten (wheat, oats) and dairy to ensure these foods aren't contributing to immune dysregulation, thyroid antibody production, inflammation.
Diet	- See emailed Metabolic Harmony Food Guide
Lifestyle	 Let's increase your vitamin D levels as it will increase insulin sensitivity. Spend 10 mins outdoors daily and expose as much of your skin as possible to allow the suns rays to penetrate your skin. Early morning will help avoid sunburn and support healthy neurotransmitter release. Weight training 1 hour 3x per week ideally. This can be dumb bells, training using your body weight, kettle bells, squats, push ups, planks, lunges etc.
Barriers	 Time, possible hormone dysregulation (can further test in the future).
Referral/Investigations	 Consider energy work in future to address emotional factors that drive weight retention and hormonal/insulin dysregulation.

Orthoplex Inositol - 2 level scoops (2 g) twice daily, away from Prescription meals Melrose Berberine Complex. 1 capsule daily. Mediherb P2Detox. 1 level metric teaspoon (4 g) twice daily in 50 - 100 mL water or juice with food **Recipes:** You can have insulin resistance with normal blood sugar levels when Misc Info: the pancreas functions well enough because the pancreas can produce enough insulin to compensate for the reduced insulin sensitivity. Our goal is to try and increase insulin uptake by the cells so that your insulin levels decrease, and so your pancreas doesn't burn out. **Detoxing Liver** The liver is your body's key player in blood sugar control. When it's healthy, it stores and releases glucose properly, which helps your insulin work better. A healthy liver also produces bile efficiently, helping you digest fats and absorb important vitamins. This supports your overall metabolism and helps maintain healthy weight. Supporting liver health improves your body's natural detox abilities, reducing inflammation and helping balance blood sugar. Think of it like unclogging a filter - everything works better when the liver can do its job properly. Causes of Insulin Resistance: When we talk about insulin resistance, several key mechanisms come into play: 1. Fat Cell Dysfunction When fat cells become overloaded, they start releasing inflammatory molecules called cytokines These cytokines interfere with insulin signaling in your muscles The fat cells also release excess fatty acids into the bloodstream, which can accumulate in the wrong tissues 2. Cellular Stress Excess nutrients, particularly fats and sugars, stress your cells' energy factories (mitochondria) This creates oxidative stress and inflammation Your endoplasmic reticulum (the protein-making factory in cells) also gets stressed, further blocking insulin's effects 3. Signaling Disruption Insulin works by triggering a cascade of signals inside cells When cells are stressed and inflamed, these signaling pathways get blocked Think of it like static interfering with a radio signal - the insulin message can't get through clearly 4. Metabolic Overload Your liver starts making more glucose than needed Muscle cells become less efficient at taking up glucose

This creates a cycle where blood sugar stays elevated, demanding more insulin The process often becomes self-reinforcing - more inflammation leads to more insulin resistance, which leads to more inflammation. However, this cycle can be interrupted through lifestyle changes that reduce cellular stress and inflammation. So basic ways in general to correct this: 1. Support Your Cellular Energy Centers (Mitochondria) - Think of these as your cells' power plants - Boost their function through exercise and specific nutrients like CoQ10 - Cold exposure (like brief cold showers) can actually help wake them up 2. Enhance Liver Health - Your liver is central to blood sugar control and fat burning - We'll support its natural detox pathways with nutrients like milk thistle - Focus on improving bile flow for better fat metabolism - Key nutrients like B vitamins and glutathione precursors help optimize function 3. Strategic Weight Management - Target the harmful fat around organs, especially belly fat - Aim for realistic 5-10% initial weight loss - Use specific meal timing (like eating within an 8-10 hour window- this is an option later on should we wish to use it!) - Focus on protein-rich meals to preserve muscle 4. Reduce Body-Wide Inflammation - Start with gut health improvement - Balance inflammatory fats (omega-3/6) - Choose foods rich in natural anti-inflammatory compounds 5. Improve Sugar Handling - Build muscle through resistance training to improve sugar uptake - Use specific nutrients like chromium and berberine - Time carbohydrates around your workouts - Focus on whole foods that help your body process sugar better Return visit in 4-5 weeks please. Other Over the next 1-2 weeks I'll more closely go over your blood tests.

NOTE: Lifestyle and dietary recommendations have been provided to support your health goals. If you experience any adverse reactions or discomfort, discontinue the recommendations immediately. We will discuss modifying them during your next appointment. If you have any serious concerns, please contact me for guidance.

Herbal medicines have been prescribed as part of your treatment plan. Like any medication, discontinue their use if you experience rashes, diarrhea, digestive issues, allergic symptoms, or any other adverse reactions that you suspect may be related to the herbs. Please notify me immediately if you experience any such reactions.

Nutritional supplements have been prescribed to address your health condition. If you experience any signs or symptoms that you believe may be associated with these supplements, discontinue them immediately and contact me. Your health and safety are of utmost importance.