

**Lesson 4**  
**Non-Fasting and Non-Dietary**  
**Considerations in IR and DMII**

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**the Fasting Method**

# Preamble

- None of the information provided in this or other lessons of the DMII Masterclass is medical advice, it is for educational purposes only
- I do not have specific brand recommendations for supplements, unless otherwise stated
- I cannot provide dosing recommendations for you personally beyond what is stated in this presentation
- I do not receive any compensation from any supplement vendor/manufacturer
- Discuss any and all lifestyle changes you wish to implement with your doctor/PA/NP, since they are familiar with your complete health history and have a record of your medications and supplements

# Lifestyle Includes

Diet – how often  
we eat ✓

Diet – what we  
eat ✓

Sleep

Stress

Physical Activity

Pharmaceuticals  
/ Supplements

Tobacco ✓

# Optimize Sleep

- Poor sleep can elevate blood sugar
- NOT THE TIME TO MAKE POOR FOOD CHOICES OR TURN TO FOOD FOR COMFORT
- To optimizing sleep:
  - Manage stress levels (next slide)
  - Finish eating min. 3 hrs. before bedtime (the earlier, the better)
  - Practise good sleep hygiene
    - Go to bed at same time each night, wake up at same time
    - Sleep in a cool, dark room
    - Remove yourself from disruptive sleeping partner
    - Turn off all electronic devices 2-3 hrs. before bedtime
  - Supplements: magnesium, Coach Larry's sleepy tea (1 tsp inositol, 1 tsp glycine), chamomile tea or capsules
  - See your doctor/PA/NP to discuss sleep apnea, adjust your CPAP, pharmaceuticals and other options

# Manage Stress

- Not managing stress effectively can elevate blood sugar
- NOT THE TIME TO MAKE POOR FOOD CHOICES OR TURN TO FOOD FOR COMFORT
- To manage stress:
  - Ensure you are sleeping well (see previous slide)
  - Do any kind of physical activity (releases dopamine, can counter negative mental states, but don't do more than your body is used to)
  - Download “39 Ways to Lower Cortisol” Quick Guide (Programs → Quick Guides)
  - See your doctor/PA/NP to discuss other options

# Physical Activity

- Helps cells become more sensitive to insulin
- Not nearly as effective as diet - what and how often we eat
- Can raise or lower blood sugar, depending on a few factors
- During exercise, the body will use glucose/glycogen from muscles and liver, so you may see a rise, especially with vigorous activities
- People with DMII can also see “dumping” with exercise and this will improve over time
- After exercise, blood sugar will likely come down
- Don't start an exercise regimen at the same time you are changing your diet or implementing fasting (if already doing it, great!)

# Supplements

# Apple Cider Vinegar

What it is	What it does	From the literature	Notes & cautions	Where to find
<ul style="list-style-type: none"><li>• Acetic acid</li><li>• Vinegar made from apple cider that has undergone fermentation to form probiotics and enzymes, giving it much less sugar than apple cider or apple juice</li><li>• Has been consumed for thousands of yrs.</li></ul>	<ul style="list-style-type: none"><li>• A lot of things!</li><li>• Helps control appetite and blunt blood sugar response, help maintain healthy cholesterol levels</li></ul>	<ul style="list-style-type: none"><li>• 2004 study showed it improved IR by up to 34% in subjects with DMII</li><li>• <a href="https://pubmed.ncbi.nlm.nih.gov/7796781/">https://pubmed.ncbi.nlm.nih.gov/7796781/</a></li></ul>	<ul style="list-style-type: none"><li>• Discuss with your doctor if you are on a blood thinner</li><li>• Choose raw, unfiltered, “with the mother” (i.e. BRAGG)</li><li>• Take 1-2 tbsp in 8 oz. water, 20 mins. before each meal</li><li>• It is an acid - don’t take it straight up!</li><li>• Especially take before any meals containing high carb or starchy foods</li></ul>	<ul style="list-style-type: none"><li>• Grocery stores</li><li>• Health food stores</li><li>• Amazon</li><li>• Readily available and cheap</li></ul>



# Berberine

What it is	What it does	From the literature	Notes & cautions	Where to find
<ul style="list-style-type: none"><li>Natural isoquinoline alkaloid found in a wide variety of herbs, including goldenseal, barberry, goldthread, Oregon grape, tree turmeric</li></ul>	<ul style="list-style-type: none"><li>Used in Chinese and Ayurvedic medicine to treat diabetes for centuries</li><li>Contains mostly basic nitrogen atoms that can lower blood glucose, improve glucose-lipid metabolism, anti-inflammatory properties</li><li>Does many other things!</li></ul>	<ul style="list-style-type: none"><li>2008 study demonstrated it as a potent oral hypoglycemic <a href="https://pubmed.ncbi.nlm.nih.gov/18442638/">https://pubmed.ncbi.nlm.nih.gov/18442638/</a></li><li>2012 study showed it improved IR in those with MetS <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3310165/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3310165/</a></li></ul>	<ul style="list-style-type: none"><li>Discuss with your doctor/PA/NP</li><li>Side effects include diarrhea, constipation, gas, upset stomach</li></ul>	<ul style="list-style-type: none"><li>Health food &amp; supplement stores</li><li>Amazon</li><li>Readily available</li></ul>

# Ceylon Cinnamon

What it is	What it does	From the literature	Notes & cautions	Where to find
<ul style="list-style-type: none"><li>• “True” cinnamon, the most expensive type of cinnamon; contrasted with Cassia cinnamon</li><li>• Aromatic spice</li><li>• Used for thousands of years in traditional medicine and food preservation</li></ul>	<ul style="list-style-type: none"><li>• Has second highest amount of antioxidants among herbs (after cloves), offering protection from damage caused by free radicals</li><li>• Can help lower blood sugar by imitating the effects of insulin and increasing glucose transport into cells; following meals by slowing stomach emptying</li></ul>	<ul style="list-style-type: none"><li>• 2009 study demonstrated it lowered oxidative stress in adults with pre-DMII <a href="https://pubmed.ncbi.nlm.nih.gov/19571155/">https://pubmed.ncbi.nlm.nih.gov/19571155/</a></li><li>• Several studies demonstrated it improved insulin sensitivity in adults who supplemented with it <a href="https://pubmed.ncbi.nlm.nih.gov/17924872/">https://pubmed.ncbi.nlm.nih.gov/17924872/</a></li><li>• <a href="https://pubmed.ncbi.nlm.nih.gov/19159947/">https://pubmed.ncbi.nlm.nih.gov/19159947/</a></li></ul>	<ul style="list-style-type: none"><li>• Discuss with your doctor/PA/NP</li><li>• Ensure you are purchasing Ceylon cinnamon rather than Cassia, which can be toxic to the liver (high amount of coumarin)</li><li>• No consensus on how much one should take (i.e. dose), so important to work with an expert</li></ul>	<ul style="list-style-type: none"><li>• Health food &amp; supplement stores</li><li>• Amazon</li><li>• Readily available</li></ul>

# Inositol (vit B8)

What it is	What it does	From the Literature	Notes & Cautions	Where to find it
<ul style="list-style-type: none"><li>• Not actually a vitamin</li><li>• Carbohydrate naturally present in the body and found in a variety of foods</li></ul>	<ul style="list-style-type: none"><li>• Plays structural role, as a major component of cell membranes</li><li>• Improves function of insulin</li><li>• Lowers blood sugar rather than raising it (like a typical carbohydrate)</li><li>• May help with weight loss</li></ul>	<ul style="list-style-type: none"><li>• 2016 study demonstrated that it lowered blood sugar and HbA1c in subjects with DMII</li><li>• <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5078644/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5078644/</a></li></ul>	<ul style="list-style-type: none"><li>• Discuss with your doctor, especially if you are on SSRIs (a type of anti-depressant)</li><li>• Available in powdered or capsule form</li><li>• Mild side effects in high doses: nausea, gas, difficulty sleeping, headache, dizziness, tiredness</li><li>• No consensus on how much one should take (i.e. dose), so important to work with an expert</li></ul>	<ul style="list-style-type: none"><li>• Health food &amp; supplement stores</li><li>• Amazon</li><li>• Readily available</li></ul>

# Magnesium

What it is	What it does	From the literature	Notes & cautions	Where to find
Mineral & electrolyte	<ul style="list-style-type: none"><li>• A lot of things!</li><li>• Required for proper glucose utilization and insulin signaling</li></ul>	<ul style="list-style-type: none"><li>• 2017 systematic review found that oral supplementation improved IR (<a href="https://pubmed.ncbi.nlm.nih.gov/28526383/">https://pubmed.ncbi.nlm.nih.gov/28526383/</a>)</li></ul>	<ul style="list-style-type: none"><li>• Check with your doctor/PA/NP for appropriate dosing for you</li><li>• Too much will give you loose stools</li><li>• If you are prone to diarrhea, choose Mg (Bis)Glycinate</li><li>• If you are prone to constipation, choose Mg Citrate</li><li>• If you interested in neurological support, choose Mg L-threonate as this is most bioavailable form for brain</li><li>• Mg oxide, most common and cheapest form, poorly absorbed and not recommended</li><li>• Other ways of getting Mg include absorbing it through skin (i.e. Epsom salt bath or Mg oil), for relaxation and muscle cramping (not necessarily for IR)</li></ul>	<ul style="list-style-type: none"><li>• Grocery stores</li><li>• Health food &amp; supplement stores</li><li>• Amazon</li><li>• Readily available and cheap</li><li>• Mg L-threonate available at <a href="http://magtein.com">magtein.com</a></li><li>• Use code "TFM10" to save 10% off your purchase</li></ul>

# N-Acetyl Cysteine (NAC)

What it is	What it does	From the literature	Notes & cautions	Where to find
<ul style="list-style-type: none"><li>• Synthetic form of amino acid cysteine</li><li>• Antioxidant</li><li>• Approved as an FDA drug to treat acetaminophen poisoning (in hospital setting)</li></ul>	<ul style="list-style-type: none"><li>• Decreases inflammation of fat cells</li><li>• May stabilize blood sugar</li><li>• May improve insulin resistance</li></ul>	<ul style="list-style-type: none"><li>• 2015 review (animal studies) demonstrated it stabilized blood sugar by decreasing inflammation of fat cells</li><li>• <a href="https://www.sciencedirect.com/science/article/abs/pii/S000991201501411">https://www.sciencedirect.com/science/article/abs/pii/S000991201501411</a></li><li>• Human research is needed to confirm</li></ul>	<ul style="list-style-type: none"><li>• Discuss with your doctor/PA/NP</li><li>• At high doses, can cause nausea, vomiting, diarrhea, constipation</li><li>• People with a bleeding disorder on blood thinners should not take</li></ul>	<ul style="list-style-type: none"><li>• Work with a practitioner</li><li>• FDA has warned it should not be sold as a dietary supplement since it is an approved drug</li></ul>

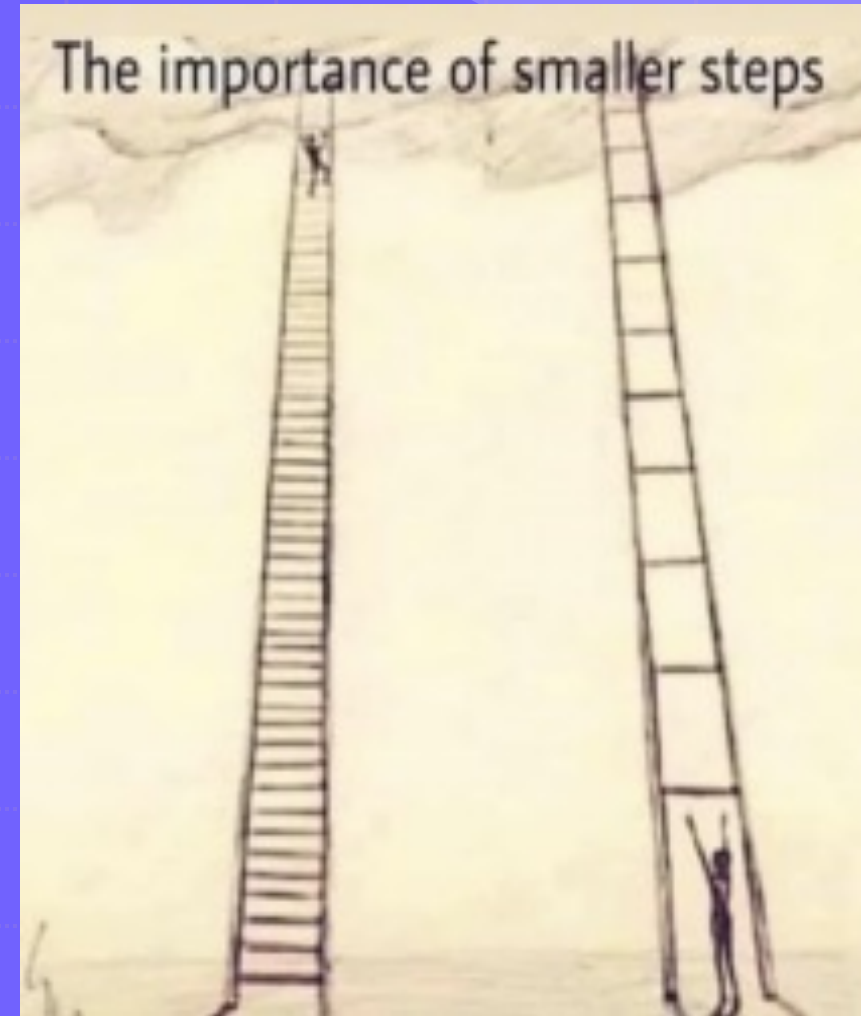
# Other

Be mindful that the following can cause blood sugar elevations, even if you are doing everything else right:

- Acute infection (i.e. cough, cold, urinary tract infection, etc.)
- Acute inflammation (i.e. sprained ankle, broken limb, etc.)
- Hospitalization for any reason
- Surgery
- Active menstrual cycle

# Action Plan

1. Pick one thing to work on/implement at a time and give yourself at least 4 weeks to settle into that new habit (maybe even longer)
2. Enjoy the journey, because if you don't, it won't be sustainable
3. Small and slow wins the race!



# Where to Go From Here

1. Go through the Healthy Habits course in TFM Community. To do so, from the dashboard click Programs → Rolling Start Programs → Healthy Habits Course
2. Consider making a free intake appointment with a TFM Coach to help hold your hand throughout your journey to better health. To do so, from our website [www.thefastingmethod.com](http://www.thefastingmethod.com) click Programs → Coaching → Select either Executive 1-on-1 Coaching or Small Group Coaching
3. Continue to be an active member of our TFM Community and take advantage of all the resources available to you. If you haven't already done so, from the dashboard click Programs → Rolling Start Programs → Getting Started → TFM Community Tour