

**Lesson 3**  
**Fasting and Eating Strategies for IR**  
**and DMII**

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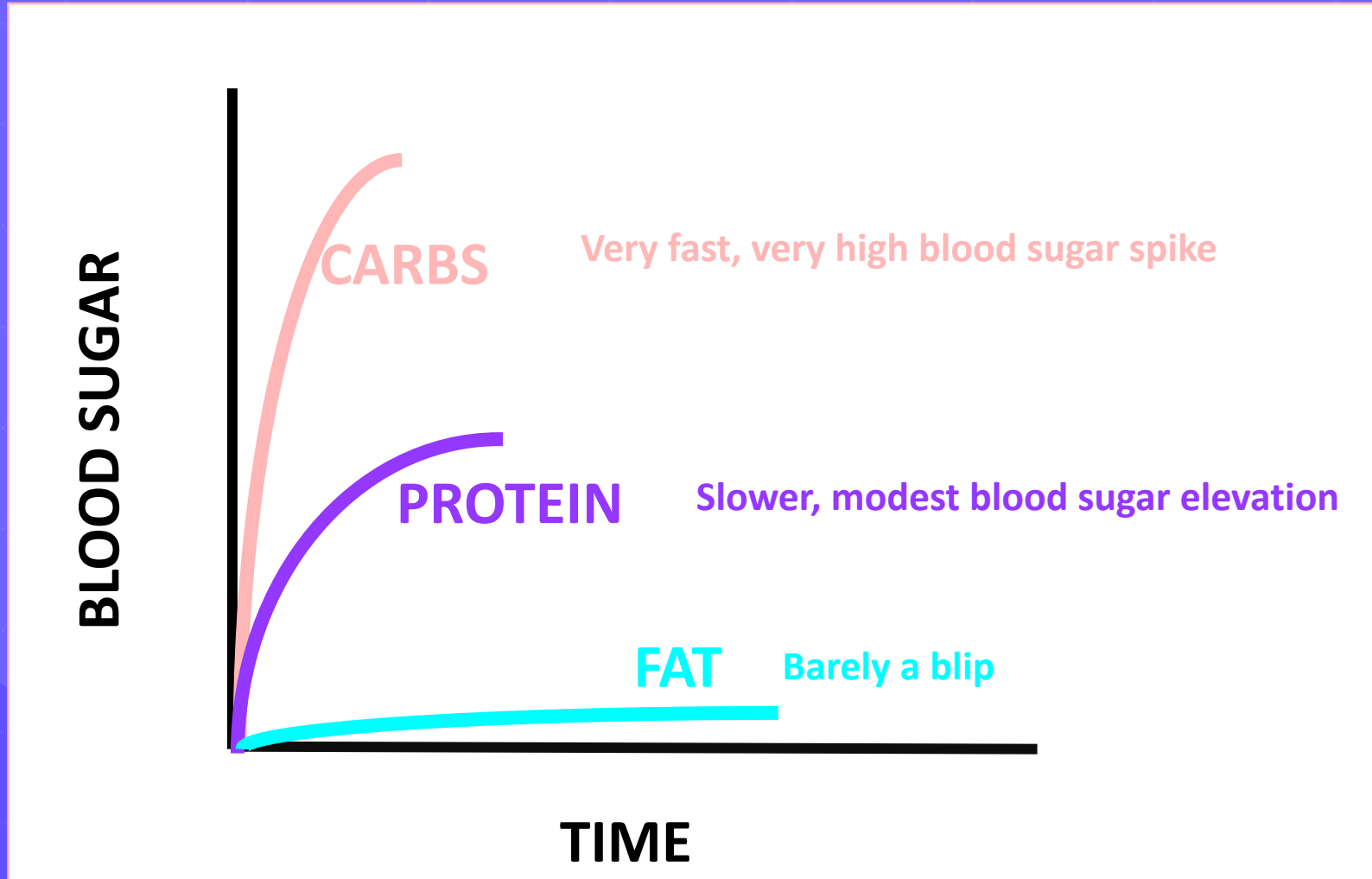


**the Fasting Method**

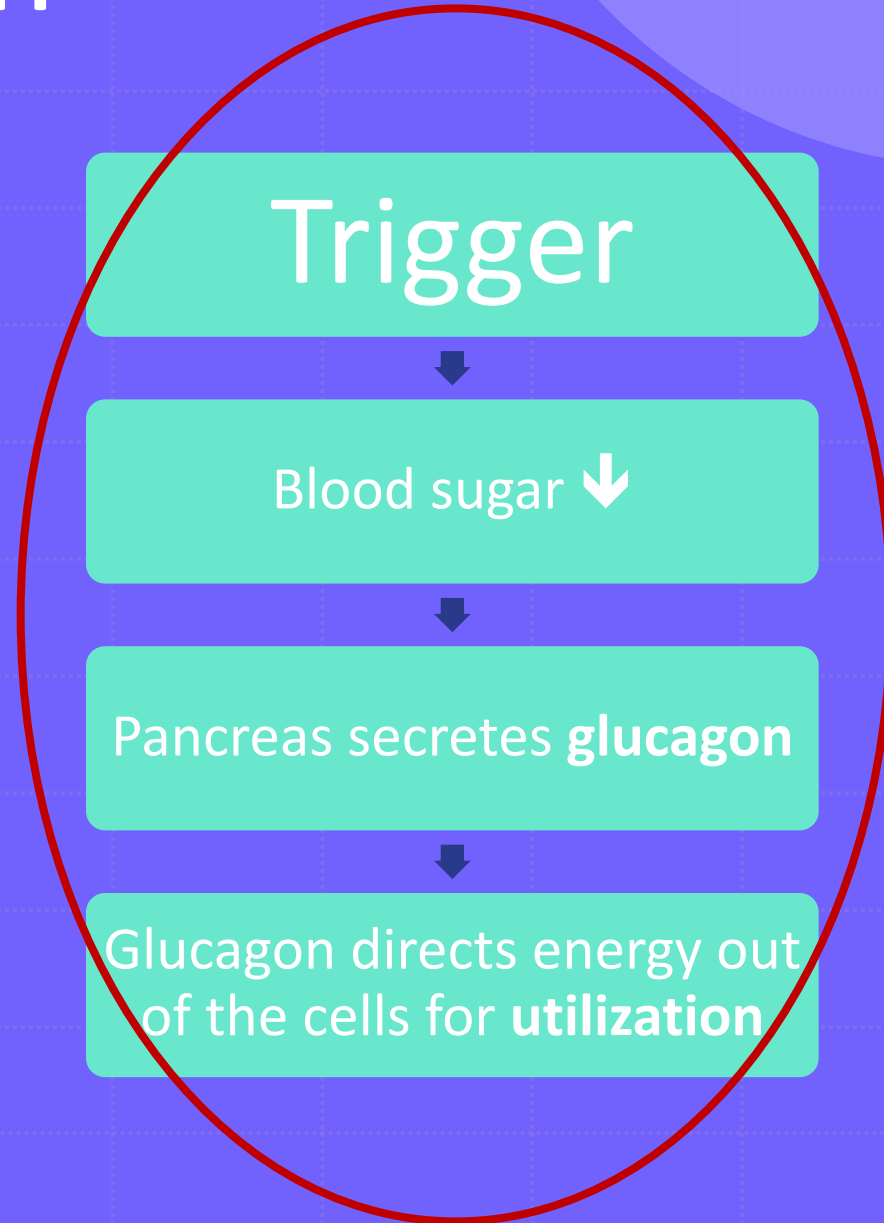
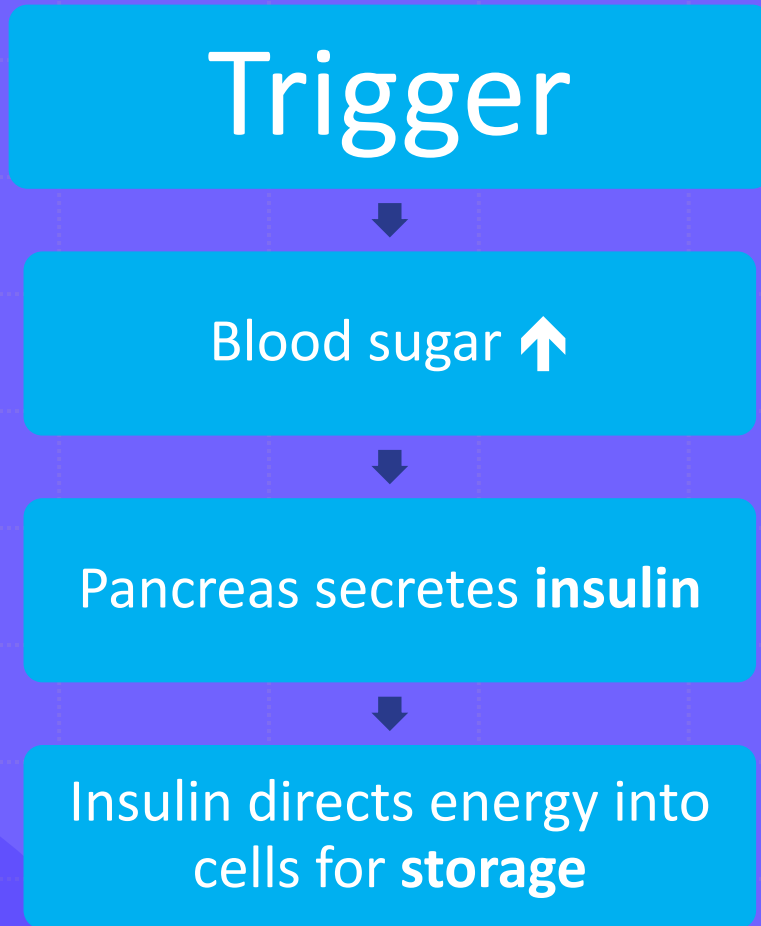
# Preamble

- None of the information provided in this or other lessons of the DMII Masterclass is medical advice, it is for educational purposes only
- Discuss any and all lifestyle changes you wish to implement with your healthcare team, since they are familiar with your complete health history and have a record of your medications and supplements

# Food & Blood Sugar

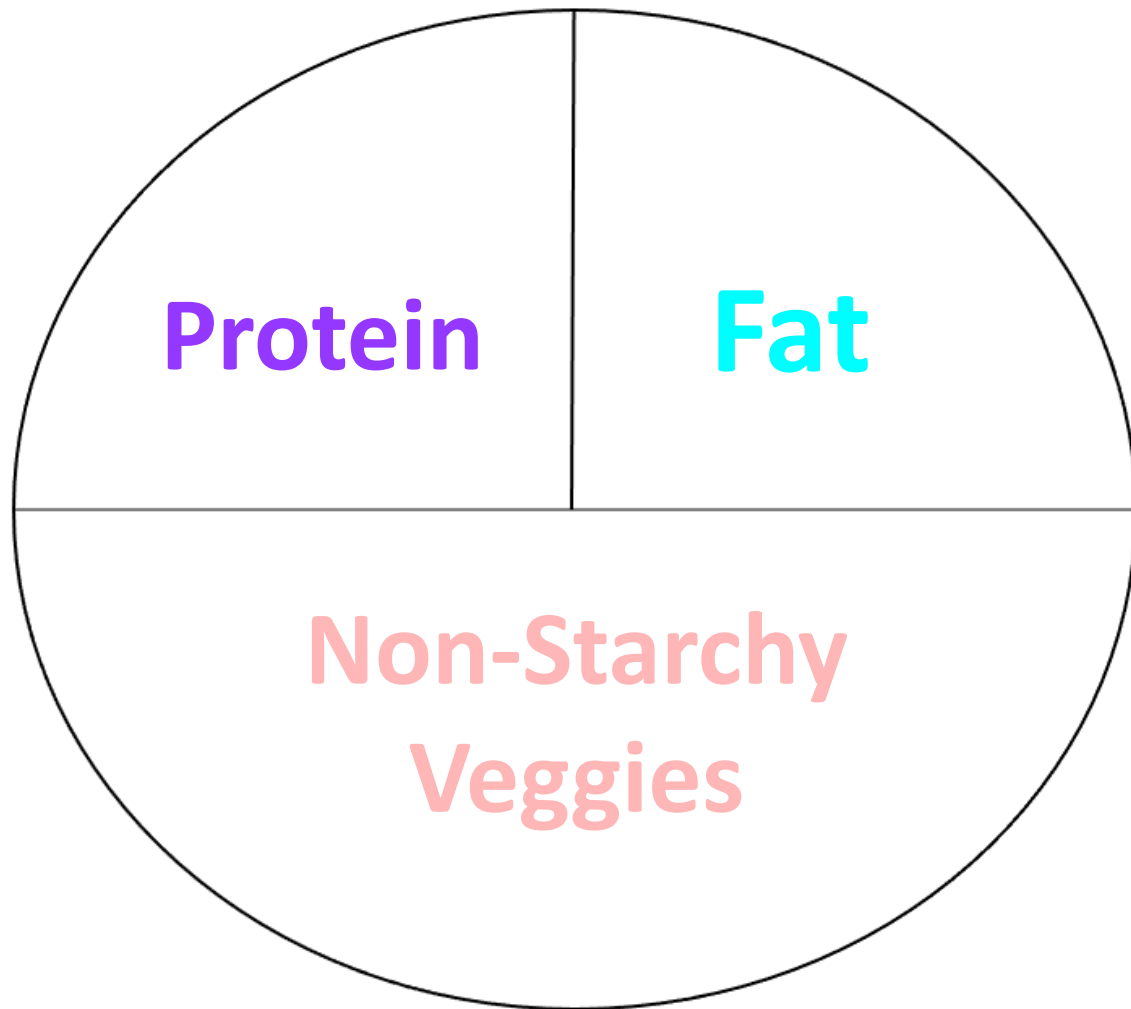


# Fixing the Problem



# Eating Strategies

# How to Meal Plan



Aim for 2 meals daily, with NO SNACKING

- You should be well-satiated after meals and not still hungry
- Eat your meal, wait 30 mins, and if still hungry, eat more of the foods you just ate
- Don't exceed a 90-minute eating window and aim for 30 mins.

# Enjoy Liberally

Non-Starchy Veggies	Lettuces of all kinds, cabbage, spinach, broccoli, rappini, cauliflower, Brussels sprouts, asparagus, eggplant, green beans, cucumber, tomato, peppers, zucchini, mushrooms, olives, snap peas, swiss chard, avocado
Fats	Butter, ghee, cocoa butter, coconut manna, coconut oil, red palm oil, MCT oil, avocado oil, extra-virgin olive oil, macadamia nut oil, full fat mayonnaise (made with any of the fats listed here), lard, tallow, bacon fat, chicken fat, duck fat
Protein	<ul style="list-style-type: none"><li>• Any kind of animal: beef, pork, lamb, game, poultry and eggs, fish and seafood, organ meats. Feel free to eat the skin too!</li><li>• If vegetarian or vegan, can have fermented soy (i.e. tofu, tempeh), protein powders: hemp, pea, pumpkin seed</li></ul>
Other	Chia seeds, hemp hearts, unsweetened coconut

# Easy Does It

Starchy Veggies	Carrots, onions, tomato puree or sauce, spaghetti squash, pumpkin, rutabaga, jicama, celeriac
Fibrous Fruit	Blackberries, raspberries, strawberries
Nuts	Nuts, nut and seed butters and their flours (unsweetened)
Dairy Fat	Full-fat cream, full-fat sour cream, full-fat cream cheese, cheeses, full-fat cottage or ricotta cheese, full-fat plain yogurt
Treats	Dark chocolate (aim for >80%), berries and cream



# Avoid

Added Sugar	Sweetened beverages including artificially or naturally-sweetened, juices, smoothies, breakfast cereals, condiments with sugar (i.e. ketchup, BBQ sauce etc.)
Grains, Flours & Legumes	Wheat, whole wheat, oats, rice, rice flour, corn, corn starch, barley, buckwheat, spelt, rye, millet, legumes, lentils
Fruit	Avoid all but raspberries, blackberries, strawberries
Treats	<ul style="list-style-type: none"><li>• Desserts and baked goods, “keto” branded foods, granola and cereal bars, most things in a package!</li><li>• Alcohol</li></ul>
Overly-processed meat and dairy	<ul style="list-style-type: none"><li>• Bologna, hot dogs</li><li>• “Cheese” slices, spray cheese, cheese in tubes and boxes</li></ul>

Why are carbs not good for me?

“Because I have insulin resistance = I have a difficult time maintaining a healthy blood sugar level, and carbs spike my blood sugar.”





Instead of focusing  
on all of the things  
you cannot eat,  
focus on all of the  
things you CAN eat!



# Fasting Strategies

# Time-Restricted Eating (TRE)

## Eating 3 Meals:



- No snacking!
- Eating window is 12 hrs. or less

## Skipping 1 Meal:



- Eating breakfast and lunch  
OR lunch and dinner
- Eating window is 6-8 hrs.  
(also called 16:8 or 18:6)

Ideal eating windows for those with DMII is mid-morning and mid-afternoon

# Intermittent Fasting (IF)

1. The controlled and voluntary abstinence from all calorie-containing food and drink for a specified and limited period of time, usually ranging from 24-42 hours
  - Unlimited fluid: water, coffee, tea, bone broth
  - Electrolyte replenishment: sodium and magnesium
  - General multivitamin supplement if preferred
  - Stop fasting if unwell for any reason

# The 24-Hour Fast

Day (Hrs fasted)	Breakfast	Lunch	Dinner
1 (24)	Fast	Fast	Eat
2 (16)	Fast	Eat	Eat
3 (24)	Fast	Fast	Eat
4 (16)	Fast	Eat	Eat
5 (24)	Fast	Fast	Eat

3-4 times per week on non-consecutive days.

Master 16:8 or 18:6 for at least 2 weeks with no issues, before trying a 24 hr. fast.  
If you choose to do 3-4 days per week, build up slowly over the course of a few weeks.

# The 30:16

Day (Hrs fasted)	Breakfast	Lunch	Dinner
1 (30)	Fast	Fast	Eat
2 (16)	Fast	Eat	Fast
3 (30)	Fast	Fast	Eat
4 (16)	Fast	Eat	Fast
5 (30)	Fast	Fast	Eat

30 hrs. is done 3-4 times per week on non-consecutive days.

Master the 24 hr., several times before attempting.

If you choose to do 3-4 days per week, build up slowly over the course of a few weeks.



# The 36 or 42-Hour Fast

Day (Hrs fasted)	Breakfast	Lunch	Dinner
1 (42)	Fast	Fast	Fast
2 (16)	Fast	Eat	Eat
3 (42)	Fast	Fast	Fast
4 (16)	Fast	Eat	Eat
5 (42)	Fast	Fast	Fast

3-4 times per week on non-consecutive days.

Master the 24 hr. OR 30/16 fast x3 or 4, for several weeks before attempting.

If you choose to do 3-4 days per week, build up slowly over the course of a few weeks.

# The 48-Hour Fast

Day (Hrs fasted)	Breakfast	Lunch	Dinner
1 (16)	Fast	Eat	Eat
2 (24)	Fast	Fast	Fast
3 (48)	Fast	Fast	Eat
4 (16)	Fast	Eat	Eat
5 (24)	Fast	Fast	Fast
6 (48)	Fast	Fast	Eat
7 (16)	Fast	Eat	Eat

Up to 2 times per week on non-consecutive days.  
Master the 36 or 42 hr. fast x3 or 4, for several weeks before attempting.  
You must have a 2-meal-day, in between the 48 hr. fast days.

# Fasting “Training Wheels”

Fluid	Additions	Not Recommended
<b>Water, Still or Sparkling (At least 2 L/day)</b>	<ul style="list-style-type: none"><li>• Lemon, lime</li><li>• Apple cider vinegar</li><li>• Chia seeds, psyllium husk powder</li><li>• Glycine for sweetness</li></ul>	<ul style="list-style-type: none"><li>• Diet drinks</li><li>• Diet pop</li></ul>
<b>Tea &amp; Coffee, Hot or Cold</b>	<ul style="list-style-type: none"><li>• Up to 3 tbsp of fat per day: cream, coconut oil, coconut butter, ghee, butter, MCT oil</li><li>• Lemon, lime</li><li>• Cinnamon or other spice</li><li>• Glycine for sweetness</li></ul>	<ul style="list-style-type: none"><li>• Coffee Mate</li><li>• Sugar</li><li>• Sweeteners (unless trying to wean yourself off sugar, but use should be temporary)</li></ul>
<b>Bone or Veggie Broth (alternatives include sugar-free pickle juice or olive brine)</b>	<ul style="list-style-type: none"><li>• Home-made, where possible</li><li>• Animal/fish bones</li><li>• Vinegar</li><li>• Natural salts</li><li>• Pepper</li><li>• Vegetables</li><li>• Herbs and spices</li><li>• Quality fat</li></ul>	Store-bought brands with additives, sugars

# Potential Side Effects

<u>Potential</u> Effects:	Notes:
<ul style="list-style-type: none"><li>• Headache</li><li>• Lethargy</li><li>• Nausea</li><li>• Irritability</li><li>• Brain fog</li><li>• Urinating more frequently</li><li>• Elevated heart rate</li></ul>	<ul style="list-style-type: none"><li>• Most common side effects during first week, usually resolve within a few days, caused by mild dehydration</li><li>• Lowered insulin is telling kidneys to release fluid and with that, come electrolytes</li><li>• Rehydrate with large glass of water and ¼ tsp of salt when you are feeling any of these symptoms, up to 4 times per day</li><li>• You may also add a little extra salt to your food</li><li>• Drink plenty of water when first getting started!</li></ul>
Leg Cramps	<ul style="list-style-type: none"><li>• Drink plenty of water and get enough salt – see above</li><li>• Take a magnesium supplement (bisglycinate or citrate): 150 mg, 200 mg or 400 mg (if you've taken too much magnesium your stools will be looser the next day)</li><li>• Take a warm bath with Epsom salts</li><li>• Use magnesium oil and rub directly on areas affected</li></ul>

You will minimize the likelihood of side effects if you go gradually and slowly!  
If side effects don't go away or are particularly bothersome, SEEK MEDICAL ATTENTION

## Potential Side Effects Cont'd

<u>Potential</u> Effects:	Notes:
Constipation	<ul style="list-style-type: none"><li>• Less food going in = less waste coming out!</li><li>• Drink plenty of water</li><li>• Take a magnesium <u>citrate</u> supplement: 150 mg, 200 mg or 400 mg (if you've taken too much magnesium your stools will be looser the next day)</li><li>• Add 1 tbsp of either chia seeds or psyllium husk powder to a glass of water, let sit for 15 mins and then consume</li></ul>
Diarrhea	<ul style="list-style-type: none"><li>• Loose bowel movements are also commonly seen when one starts to fast, especially upon breaking the fast</li><li>• It doesn't last long, and is the body trying to get rid of excess water</li><li>• Make sure you are not taking too much magnesium, as too much, especially magnesium citrate can cause this</li><li>• Add 1 tbsp of either chia seeds or psyllium husk powder to a glass of water, let sit for 15 mins and then consume</li><li>• If diarrhea persists beyond one week, SEEK MEDICAL ATTENTION!</li></ul>
Heartburn	<ul style="list-style-type: none"><li>• Acid reflux from the stomach into the esophagus can flare, but doesn't typically last long as the body adapts</li><li>• If you take medication, continue to follow your doctor's instructions, even while you are fasting</li><li>• Avoid foods that trigger heartburn: alcohol, caffeine, chocolate</li><li>• Add 3 tbsp lemon juice to your water and drink throughout the day</li><li>• Add 3-6 tbsp apple cider vinegar to your water and drink throughout the day</li><li>• Try chamomile or ginger tea</li></ul>

You will minimize the likelihood of side effects if you go gradually and slowly!  
If side effects don't go away or are particularly bothersome, SEEK MEDICAL ATTENTION

## Potential Side Effects Cont'd

<u>Potential</u> Effects:	Notes:
Hair Loss	<ul style="list-style-type: none"><li>• Temporary hair loss can occur with any significant dietary change or rapid body fat loss, so this is not exclusive to reducing dietary carbs and/or fasting</li><li>• Can take months for hair loss to stop, and regrowth to begin</li><li>• Try incorporating an extra 20 g dietary protein daily</li></ul>
Insomnia	<ul style="list-style-type: none"><li>• Trouble falling and/or staying asleep is a common side effect of reducing dietary carbs and/or fasting, due to the increase in hormone, noradrenaline</li><li>• This is usually temporary, about 1-2 weeks, and then resolves</li><li>• Take a magnesium supplement 2 hrs. before bedtime (bisglycinate or citrate): 150 mg, 200 mg or 400 mg (if you've taken too much magnesium your stools will be looser the next day)</li><li>• Take a warm bath with Epsom salts, 2 hrs. before bedtime</li><li>• Try Coach Larry's sleepy tea: add 1 tsp inositol powder and 1 tsp glycine powder in warm (not hot) water, 1 hr. before bedtime</li></ul>
Bad Breath	<ul style="list-style-type: none"><li>• When reducing dietary carbs and/or fasting, you may notice a metallic taste or foul breath</li><li>• This is a side effect of fat metabolism, so actually a positive sign</li><li>• Drink plenty of water, maintain good oral hygiene and brush your teeth and tongue more often</li><li>• Oil pulling with coconut oil is sometimes helpful, refer to Programs → Quick Guides → Oil Pulling</li></ul>

You will minimize the likelihood of side effects if you go gradually and slowly!  
If side effects don't go away or are particularly bothersome, SEEK MEDICAL ATTENTION

# Be Vigilant

If you...	Notes
Are on a blood-glucose-lowering medication other than metformin, OR are taking insulin	<ul style="list-style-type: none"><li>• You will need to test your blood sugars more regularly, to ensure you do not go hypo!</li><li>• Should this happen, break your fast and SEEK IMMEDIATE MEDICAL ATTENTION IMMEDIATELY!</li><li>• You may need to discuss medication adjustments with your doctor</li></ul>
Are on blood pressure medication	<ul style="list-style-type: none"><li>• You will need to test your blood pressure more regularly, to ensure it does not go too low!</li><li>• Should this happen, break your fast and SEEK IMMEDIATE MEDICAL ATTENTION IMMEDIATELY!</li><li>• You may need to discuss medication adjustments with your doctor</li></ul>
Have a history of gout or uric acid kidney stones	<ul style="list-style-type: none"><li>• There is a slight increase in the risk of a gout flare or formation of uric acid kidney stones while your body is healing</li><li>• This does not indicate that your new habits are bad for you; our body produces ketones when we fat burning, and this metabolite competes with uric acid for excretion in the kidneys</li><li>• This risk will go away and actually decrease so long as you maintain your new lifestyle</li><li>• Add 3 tbsp lemon, lime, or apple cider vinegar to your water and drink throughout the day</li><li>• Try cherry fruit extract supplement</li><li>• Add a magnesium citrate supplement (citrate binds to uric acid)</li><li>• <u>Avoid cheating</u>, this is especially important for someone like you!</li><li>• Should this happen, break your fast and SEEK IMMEDIATE MEDICAL ATTENTION IMMEDIATELY!</li></ul>

# Be Vigilant

If you...	Notes
Have atrial fibrillation or history of another heart arrhythmia	<ul style="list-style-type: none"><li>• When fasting, insulin goes down but other hormones go up including noradrenalin. This may increase your heart rate and most of the time it is not worrisome</li><li>• In rare cases, it may trigger an episode of atrial fibrillation or other abnormal heart rhythm</li><li>• Should this happen, break your fast and SEEK IMMEDIATE MEDICAL ATTENTION IMMEDIATELY!</li></ul>
Have a history of diabetic ketoacidosis (DKA) or are taking an SGLT2 inhibitor (i.e. Invokana, Farxiga, Jardiance)	<ul style="list-style-type: none"><li>• You will need to test your blood sugars AND ketones regularly</li><li>• DKA is rare for people with DMII, but can still happen, and is serious</li><li>• DKA occurs when both blood glucose AND ketones get too high</li><li>• Early DKA symptoms include: increased thirst, abdominal pain, nausea, vomiting, confusion</li><li>• Should this happen, break your fast and SEEK MEDICAL ATTENTION IMMEDIATELY!</li></ul>
Have a history of gallstones	<ul style="list-style-type: none"><li>• If you still have your gallbladder, eating a diet higher in fat can trigger a gallstone attack</li><li>• Should this happen, break your fast and SEEK MEDICAL ATTENTION IMMEDIATELY!</li><li>• If you do not have your gallbladder, your body may need to adjust to processing dietary fats, and this may take a bit of time. Try a digestive enzyme containing lipase or ox bile supplement with meals.</li><li>• Note: if you don't have your gallbladder, you cannot have a gallbladder attack ;)</li></ul>



# Breaking Your Fast

1. You want to break your fast gently to wake up your digestive system, this is especially important in fasts over 24 hrs.
2. Consume something small (i.e. bone broth, cooked veggies), and then wait 20 mins, before enjoying your usual meal.

## Don't break your fast with:

1. Eggs
2. Nuts

# Fat Fasting

Why / When to do it:

- After a setback
- During the holidays in between social events
- Use as a jump-start or re-boot
- If you want to start fasting longer but are struggling
- If you have carb cravings

# Fat Fasting

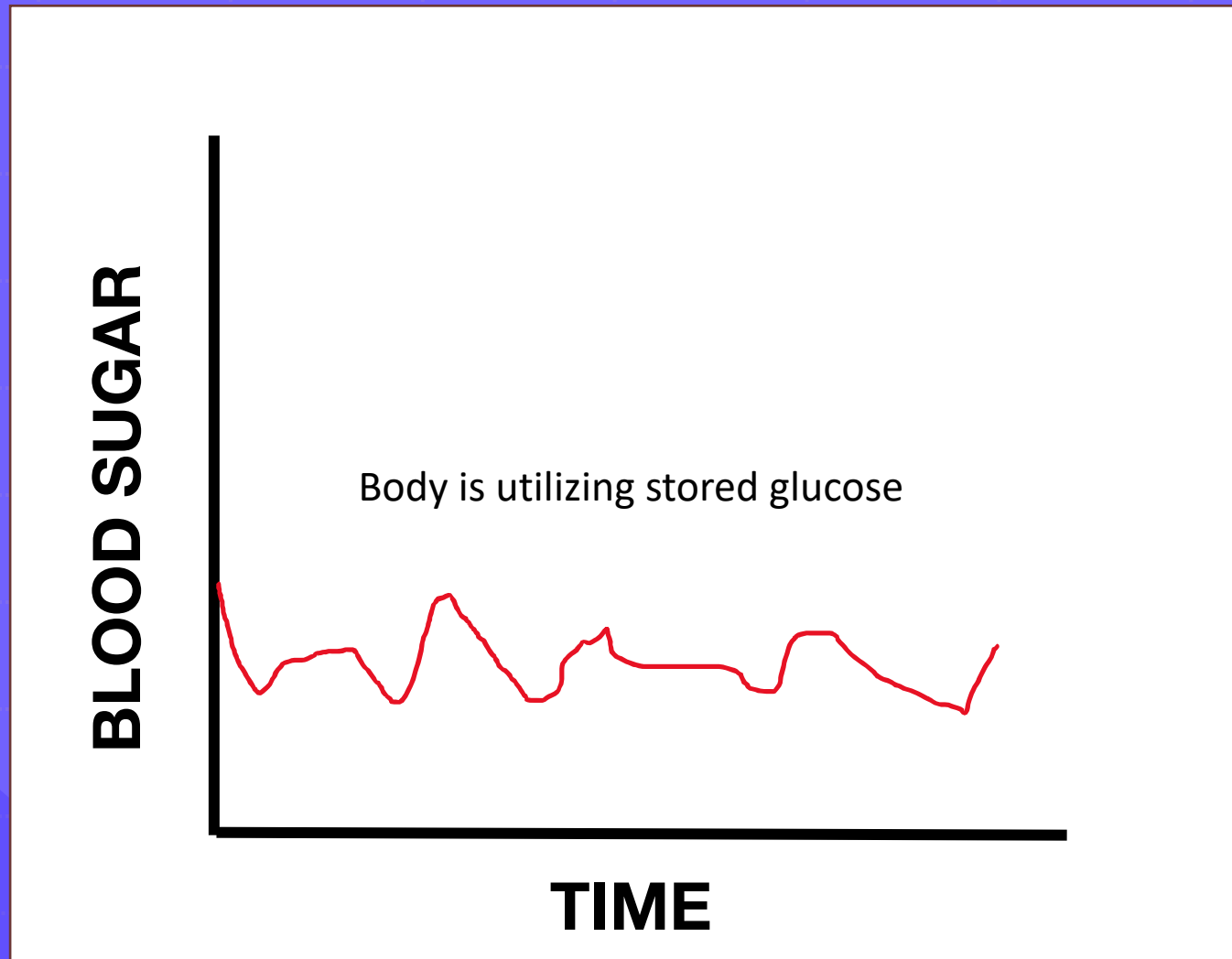
How to do it:

- Select up to 3-4 foods, up to 3 times daily, to satiety:

Omnivores	Vegetarians	Vegans
Any healthy fat source listed previously		
Leafy greens cooked in, or covered in fat		
Avocados or olives or pickles		
Eggs		
Full-fat goat and/or sheep dairy		
Any meat, poultry or fish that isn't breaded or deep fried	Nuts and seeds	

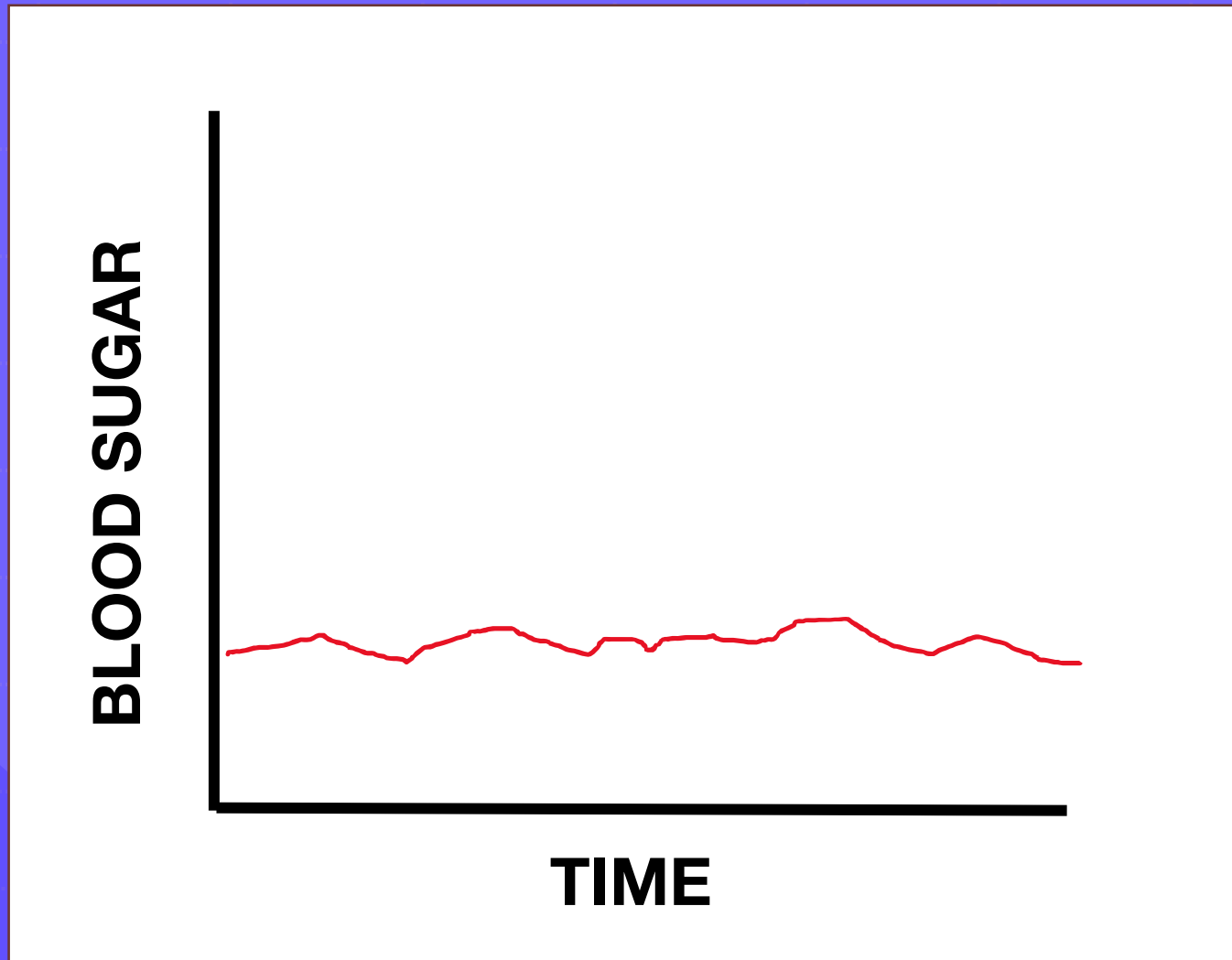
- In addition, you may use up to 3 tbsp cream for coffee/tea
- You may consume as much bone or veggie broth, sugar-free pickle juice or olive brine as you like
- Usually done for 2-3 days along with TRE, or before an extended fast

# Fasting & Blood Sugar (Disease State)



**Talk to your doctor/PA/NP if  
you see FBG > 162 mg/dl  
or > 9 mmol/L while fasting**

# Fasting & Blood Sugar (Healthy State)



# Action Plan

1. Go through the Nutrition course in TFM Community. To do so, from the main menu click Programs → Rolling Start Programs → Nutrition Course
2. Go through the Fasting course in TFM Community. To do so, from the main menu click Programs → Rolling Start Programs → Fasting Course
3. Think about how you would like to get started with implementing the eating and fasting strategies outlined here, and discuss your plan with your doctor/PA/NP beforehand