

MY HEALTH RECOVERY JIGSAW - PART 1

So this document started off as a list of things that I learnt as I went along but now I am giving it some structure. In October, faced with incredible physical and mental health challenges, I began an incredible health recovery journey and I am going to try and capture the key components that have helped me lose 56lb . It is not just about weight loss however, it is about fuelling right for every area of life.

1. NUTRITION

1. Make sure level of protein in your diet follows the lumen plan. if you do this your blood sugar will be more level & will help prevent cravings - I make sure I have plenty of protein at breakfast. Do not have more than 30g at any one time and leave 90 minutes before having more protein as the body does not easily digest more than 30g at a time. I am on 2g per kg of bodyweight on the fitness performance track with lumen - it is a little less on weight loss, endurance track within fitness performance and metabolic flexibility.

Consider purchasing a good quality, clean [no added sugar or artificial sweeteners, organic] protein powder which you can supplement your regular food with for snacks. I have this daily - biotrust.com low carb lite [only 2g carbs per 20g protein]. or their low carb protein powder [24g protein 4g net carbs], often with 50g of fruit [raspberries/blueberries, chia seeds, flax seeds, oat bran - or a combo].

2. Drink plenty of water and eat foods with water in to get more hydrated - the more hydrated you are the easier your body will burn fat as a fuel source. My hydration levels were at 45% when I started - it is 52.8 % now.

3. Eat healthy nuts (NO MORE than 30g) as a healthy snack - preferably including almonds, walnuts, Brazil nuts, pistachios,

4. Find lower carb fruit you like - if possible some berries - raspberries, strawberries are all good, less carbs but have good fibre in as well. Blueberries are good but higher in carbs. See hacks at the end by Jessie Inchaupse re fruit - don't eat it naked etc !!! It is high in sugar and the body does not differentiate between sugar molecules in fruit vs added sugar in other things... it JUST IS SUGAR !

5. Eat low glycemic carbs if possible [WHOLEMEAL pasta, oats, rice] and plenty of green veg- slow release as this will also help to even blood sugar out & give slower release energy. Try to eat the majority of your carbs earlier in the day and avoid refined carbs, sugar laden food [check labels for the "of which sugars" and try to avoid food with added sugar]. The best carbs with sugar are the ones with naturally occurring sugar.

6. Replace sugar/artificial sweeteners with Erythritol [available in Sainsburys in UK and even works OK in cakes - it's natural. The problem with no cal sweeteners is they cause a response in the brain which doesn't aid weigh loss.

Artificial sweeteners sometimes have negative effects on **the body and brain** that sugars **do** not. **Our brains**, stomach microbes, **and** pancreases process **artificial and** real sugars differently—which can cause us to eat more, gain more weight, **and** have a harder time digesting **the** real sugars that **our** bodies need.

<https://www.theatlantic.com/health/archive/2012/06/this-is-your-brain-on-diet-soda-how-fake-sugar-makes-you-overeat/258521/>

7. If on weight loss or if you have a sweet tooth, identify a sweet treat for the evening but eat as dessert to avoid blood sugar spike in evening try not to binge on it and have it early! [no more than 100- 150 cals - fibre one bars are good, Keto bars, keto bombs by nosugar company, also dark chocolate keto nuggets - inno foods - available online and costco.

8. Keto bombs from nosugar company are a great treat [available on line or costco] - only 0.8g net carbs and plenty of good fats. FAT is not bad - processed and trans fats and refined carbs are bad! Grenade white chocolate cookie protein bars - Carb killers are great - only 2g net carbs and 22g of protein. Again available in Costco a lot cheaper than elsewhere.

9. Try to finish your eating by 730pm if you can and leave 12-14 hours before you eat again if you can - particularly for those on weight loss.

10. Eat your carbs strategically around your workouts and eat them in the right order when consuming your meals [see hacks at the end] [if you are doing workouts/walks] 1 portion before and 1 after is often what I have done - 30 mins after and 30 mins ahead of it or just before as suits. 1 portion = 15g - I often have fruit [raspberries, banana, blueberries] and afterwards a protein shake with 30g Oat bran - as that is a slower release carb but you have to find what works for you. I throw chia seeds [20g] into one of my shakes in the day and also flax, goji berries, pumpkin seeds, sesame seeds - just tablespoon.

11. Lumen determines the ratios for you. I don't add more for exercise though occasionally do have a "cheat" day with a Chinese or Indian take away on a carb boost day but I am really sensible with those and do not have them every boost day either; in the beginning I did not have anything like that and even now, if I have Chinese, I cook my own wholegrain rice to accompany the dish. The problem with dropping your cals too low is that it can work against your metabolic rate and slow it down and then you are more likely to regain after loss and also it can cause your body to feel in "starvation" and then it just holds on to fat so it is about finding the right balance for you.

12. Use the food logger now built into the lumen app. Previously many of us were using My Fitness Pal/Cronometer/Carb manager to track your intake - don't adjust your calories/intake just because of your exercise levels - you need to eat enough but you also need to create calorie deficit but not put the body into "starvation" mode or it will hold on to fat to protect you - it is a stress response. One reason why a lot of women don't lose weight is because they are eating the wrong things and not enough protein, **they aren't sleeping enough, they have too much stress in their bodies, they are training/exercising too hard !! You need higher protein intake overall and it's important for weight loss.**

13. If you haven't eliminated alcohol try to eliminate it; it contains 7 cals per 1g which is nearer to what fat contains @9 cals per g. Other carbs are 4 cal per g. The body will use it for fuel but spends a lot of time having to deal with its toxicity so it is really empty calories. It messes up/disrupts your metabolic process so it is best out of the equation especially whilst you are trying to lose weight.

14. Buy some good scales that are quick and easy for weighing food - you will then get used to "quantities".

15. I eat a lot of green vegetables/legumes - edamame beans, spinach, green beans, broccoli, sprouts ... also mushrooms.
16. If you are struggling in the evening with cravings, have a protein shake [consider mixing with some good fats in - chia or flax seed mix] or have a couple of keto bombs!
17. I use almond milk for porridge and protein shakes. Unsweetened and with added calcium.

GUT BIO / BALANCE / SUPPLEMENTS

1. Ensure you are taking a good probiotic - it is likely to be fairly expensive if it is any good. You will need to research this. I take a supplement from the same company I buy protein powder from in the USA; it's called Pro X10 [biotrust.com]. Gut health can be the main barrier to some people's ability to lose weight - if you have too many unfriendly bacteria in your gut you won't be absorbing nutrients properly and the stress on your system will cause your nervous system to hold onto stored fat. Check out healthpath.com to get yourself tested or follow Dr Gerard Mullins' Gut Balance Revolution [his book is available on amazon and the plan is in the book] eating plan for 3 months to adjust your gut back into a better place.
2. Make sure you also cover the bases with your Vitamins and minerals. [I take an Omega 3 / Krill oil supplement, Vit D3, Turmeric].
3. If you are a peri menopausal woman consider HRT and if your GP is a barrier check out the menopausedr.co.uk

STRESS

1. Identify stress triggers. Your body is often "stressed" when you do not realise it. Rushing and too much multi tasking cause your cortisol levels to rise and you often have no idea that your body is responding in stress mode. Stress mode does not support weight loss. Try to pace and plan your day with sufficient breaks and breathing space to prevent your nervous system becoming overloaded. Exercising too hard too frequently also puts significant stress on your body. **LISTEN to your BODY.**
2. Incorporate mindfulness to reduce stress as stress will stop you losing weight as well.

ACTIVITY LEVEL

1. Mix your workouts up - High Intensity Interval training is good for fat loss but the impact is often afterwards vs during the exercise. 6 months in now I only do 1 HIIT session a week or more intense 80% plus on my heart rate, the rest of the time I do low intensity zone 1 & 2 work over a longer period. So 2/3 x 90 minute outdoor rides or indoor with average HR no higher than 119 [should be able to speak] - If you are going to do HIIT, probably only 2-3 x 30 mins per week max.

2. Walking - you are most likely to be in zone 1 but I have found 4+ mile walks really accelerated my weight lost in the last month on weight loss track [9lb]. Walking is BRILLIANT for weight loss - low impact and free !!!
3. Strength training - this will increase your metabolic rate and muscle mass which means your body needs more calcs to function and therefore will help you burn fat. I have done bodypump 3 x per week since mid January. The gains have been incredible both in weight loss and strength. Accessible via Les Mills on demand app and all you need is some basic weights and then you can improvise. Other good classes also available on the Les Mills on demand app.
4. *** repeat **** Eat your carbs strategically around your workouts [if you are doing workouts/walks] 1 portion before and 1 after is often what I have done - 30 mins after and 30 mins ahead of it or just before as suits. 1 portion = 15g - I often have fruit [raspberries, banana, blueberries] and afterwards a protein shake with 30g of Oat bran - as that is a slower release carb but you have to find what works for you. I throw chia seeds into one of my shakes in the day and also flax, goji berries, pumpkin seeds, sesame seeds - just tablespoon.

SLEEP

1. Try to make sure that you are getting enough sleep because sleep is key to weight loss - 7 hours plus - when I was recovering from being unwell, I was sleeping 9-11 hours most nights ! I am now back to a more normal 8-9 hours. You may find yourself needing bathroom visits during the night as your body uses fat for fuel as you sleep!
2. Minimise use of tablets/mobile devices/TV before bed [set a cut-off time] and remove phone from the bedroom.
3. Endeavour to avoid caffeine after lunch and opt for decaffeinated drinks to support this.
4. Keep alcohol consumption to absolute minimum and as far from bedtime as possible as is a major sleep disruptor as well as a liver loader which prevents your metabolism functioning properly.
5. Sleep hygiene - dim lights in the evening etc - plenty on internet about creating the best environment.

OTHER CONSIDERATIONS/ RESOURCES

Genetic Predisposition - metabolic, nutrition, exercise response/stress/sleep

1. **Consider getting a DNA test** with DNA [fit.com](https://www.dnaitalia.com/) or another provider to identify your sensitivities and responses. This has helped me tremendously.
 - I am highly sensitive to refined carbs and also saturated fat.
 - I have low metabolic response

- I have disposition towards stress related obesity and low appetite control.
- I have high response to HR [which means I need to be careful with HIIT
- I have strong response [good] to strength training [hence its introduction in January though strength training is very important for bone density and muscle mass].

I have a 30% referral discount code for DNA fit - pm me -

or here it is - <https://dnafit.mention-me.com/m/ol/bs4gg-maria-fox>

This is the basic one that gives you a nutrition/exercise/wellness report. Circle DNA is a lot more expensive and goes into multiple areas!

2. Consider a gut bio test - healthpath.com

3. Useful books:

Rushing Woman Syndrome - Dr Libby Weaver - brilliant overview of how how nervous system works

Accidentally Overweight - Dr Libby Weaver - talks through the 9 factors which often inhibit weight loss

Gut Balance Revolution - Dr Gerard Mullins - discussed the importance of gut balance to weight loss and overall health and how to improve your gut balance

Why we eat too much - Dr Andrew Jenkinson - covers why it isn't just calories in and calories out and the complex issues that affect us

Why we sleep - Matthew Walker

It's not a Diet - Davinia Taylor

[The Glucose Revolution - Jessie Inchauspe](#)

[Change your Brain, change your Body - Dr Daniel Amen](#)

The Glucose Revolution Hacks to flatten your glucose curve which will help with weight loss/cravings/metabolic flexibility

The hacks to help keep blood sugar levels low / more level throughout the day to support weight loss alongside eating, exercising, hormone balance, prevent / lower risk of diabetes/address pre diabetes

All fruit is mainly carbs - mainly sugar with a small amount of fibre. This is important and they should not be eaten in significant quantities. Berries are lowest in sugar especially raspberries [which have a good amount of fibre], blackberries, strawberries. Blueberries are OK but a bit higher.

Summary (tips)

1. Meal eating order: Eat your non starchy vegetables first [greens/carrots but not peas/sweetcorn as they have more sugar], then protein and fat, last carbs, starchy vegetables and sugars (dessert)

2. One tablespoon of vinegar (apple cider, white wine, rice...) diluted in a tall glass of water, up to 30min before a meal
3. Have a savoury breakfast (best mix of protein, healthy fat, fibre)
4. Use your muscles for at least 10min after a meal (a walk, cleaning the house, walking up the stairs, dancing, squats...)
5. Never eat a carb or desert on an empty stomach, leave it for the end of a well balanced meal and/or drink 1 tablespoon of diluted vinegar in water before eating it and/or use your muscles for at least 10min after you've ate it.
6. No naked carbs/sugars, put some clothes on them - pair it with some protein, healthy fat and/or fibre (e.g. chocolate cake with some greek yogurt, piece of sourdough with some avocado or butter, rice with some eggs or salmon or greens, cookie with 10 raw almonds...)
7. Eat whole fruits, no juices (even if it's mixeds with some vegetables)
8. Avoid dried fruits, oat milk, coconut water, rice cakes (treat them all as a dessert)
9. Well balanced smoothies (PHFF) with no fruits or very little fruit (best berries)
10. Better choices: Sourdough over white bread, steel cut oats over oatmeal, starchy vegetables over white bread/pasta...
11. Grapes, pinapple, banana - higher fructose levels, always put "clothes" on them [eg eat with protein or fat] or eat as dessert (not in evening)
12. Eat more healthy fats - avocados, avocado oil, olive oil, fish...
13. Stress and poor/lack of sleep spikes glucose levels and the body's ability to properly function
14. If you wake up tired, eat savory breakfast, 10min high intensity workout shortly after you wake up, then coffee or just skip coffee, to feel better and reset your body

*PHFF - protein, healthy fat, fibre

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You tube MariaFoxWellness
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USING LUMEN - PART 2

Some of what follows is taken from the Lumen help centre - available within the app or via internet - you can ask any question and there are a lot of articles and references to help you. Tools within the app also has a lot of guidance to work through. I have selected the most frequently asked questions from what I have noticed during my journey.

1. WHEN SHOULD I TAKE MY LUMEN MEASUREMENT ?

The below provides an explanation in relation to this. For me the most important measurements are 1) morning [30 mins after getting up - still fasted [not having eaten anything or drank coffee/tea with milk] but if you need to take sooner you may receive a higher reading due to cortisol spike which temporarily impacts blood sugar and energy source 2) Pre workout, post workout and 3) post a high carb meal on a boost day 4) Before sleeping but at the beginning take as many as you have time for !

<https://lumen.force.com/helpcenter/s/article/When-should-I-take-my-Lumen-measurement>

Answer

Morning Time

A morning breath measurement is the most insightful measurement of the day, this is because your metabolism goes into a resting state when you are asleep. Your morning breath provides Lumen with the data it needs to prepare a personalized meal plan for you each day. It is important to note you should take your morning measurement before eating or drinking anything with calories.

We recommend taking the morning measurement 20-30 minutes after getting out of bed to ensure that your results are not skewed due to the natural and temporary increase in blood sugar experienced when we wake up in the morning.

To take your morning measurement tap on the 'Take A Breath' button

Pre & Post Workout

To add a workout, tap on the '+' icon on the upper right hand corner below the food search icon. You can also add a workout via the wind icon on the lower right hand corner of the Today tab.

Discover if your body needs to fuel up based on an activity's duration and intensity by taking a breath measurement before a workout. After a workout, wait a minimum of 30-minutes to take another measurement and see the impact of the activity on your body.

After Meals

See the impact of certain foods on your body by taking a breath measurement between 1 and 2 hours after a meal.

After Fasting

See the impact of your fast by taking a breath measurement before finishing your fast.

Check - in breaths

We encourage taking check in breaths throughout the day, this will help you to better understand your own metabolism and how it reacts to the plan that you are provided. To take a check-in breath, tap on the wind icon on the lower right hand corner of the Today tab. You can create your own custom tags by using the "custom check-in" measurement option.

2. HOW TO IMPLEMENT THE NUTRITION PLAN

<https://lumen.force.com/helpcenter/s/article/How-to-Apply-the-Nutrition-Plan?fbclid=IwAR1VQd1QZu89LVadksZ7YrJv04192tUc3IKFMGUhnS0vM20cNk3vOYIsxys>

a. Why track macros instead of calories?

There are two ways people tend to think about tracking the food they eat: calories or macronutrients.

What's a calorie?

A calorie is a measurement, just like a teaspoon or an inch. A calorie represents a unit of energy. The calories listed on a package are actually called kilocalories, which basically means 1,000 calories. A calorie, or kcal, is commonly defined as the amount of energy required to raise the temperature of 1g of water 1 degree celsius.

What's a macronutrient?

Macronutrients (macros) are components of food that include carbs, protein, and fats. Each macro provides a specific amount of calories. Macros make up the calories in food and drinks, so tracking them is actually tracking calories.

For example:

-1 gr of fat provides 9 kcal

-1 gr of carbohydrates provides 4 kcal

-1 gr of protein provides 4 kcal

b. Which way is better for counting?

The science behind Lumen focuses on macronutrient intake, rather than counting calories, for a few good reasons. It's widely accepted that weight loss and gain result from consuming too many or too few calories. It's about energy balance, and it's related to calories in, calories out. Calories in refers to the calories we consume through food, beverages, and also some supplements, while calories out refers to calories you burn for supporting organ function, workouts, and other physiological processes.

If the amount of calories you consume predicts weight loss or gain, then why not focus on calories, and not count macros? Here's why: Counting only calories doesn't provide you enough info about the quality of your diet. Counting calories only focuses on the amount of energy you consume, which is important, but not sufficient if you want to improve your weight, your body composition, and your health.

A quick example

Did you know that a 12oz can of soda and 2 pieces of salmon sashimi have the same amount of calories? While it's true, they're not equal in terms of nutritional value. That's because they're made up of different macronutrients, which impact your body differently.

Let's go a little deeper

Same amount of calories, different effects on the body

Soda consists mainly of carbs in the form of sugar. Salmon is mostly protein and healthy fat, which also contains vitamins and minerals, that makes it high in nutritional value.

The sugar from the soda will raise your blood sugar levels. This effect stimulates your body to produce more insulin in order to normalize your blood sugar levels again. The rise in insulin levels inhibits, or blocks, a body's capacity to burn fat until the insulin levels fall back to the basal, or normal, level.

Salmon doesn't have any carbs, so it hardly raises blood sugar levels. Instead, the protein increases and preserves muscle mass and function. Protein provides the same amount of calories as sugar, but because it's more difficult to digest, absorb, and process due to their chemical complexity, it takes more energy, or calories, for a body to metabolize protein compared to the sugar in soda, which gets metabolized simply and quickly.

The amount of calories the body requires to process the nutrients in food is called the thermic effect of food, and protein has the highest thermic effect. You burn more calories when eating salmon and other protein-rich foods, compared with soda or other foods that have fast-absorption carbs. That doesn't mean all carbs don't have health benefits, but it's generally wise to choose slow-absorption carbs rather than fast-absorption carbs.

Additionally, salmon's healthy fats (omega 3) provides satiety, which helps you feel fuller longer after eating. There's also strong evidence that these healthy fats protect your brain, are anti-inflammatory, improve cholesterol levels, and help prevent cardiovascular disease.

c. Should I track all my macros or just my carbs?

Keeping track of what you eat is a powerful tool that can help you achieve your goals, but tracking macronutrients is a skill that needs to be developed and refined. If you're new to tracking macros, we recommend starting by tracking just the intake of your carbs. According to data from people who use Lumen, and backed by research, the quantity and the quality of carbs you consume, fast-absorption carb vs slow-absorption carbs, is the main predictor of your body's preference for using carbs over fats as a chief source of fuel.

If you're skilled at tracking macros, we recommend focusing on carbs and protein intake. Knowing how much you consume of both these macros significantly increases your chances of improving your weight and body composition.

If you're more advanced at counting macros, we recommend focusing on your intake of carbs, protein, and fat.

Lastly, being aware of your carb, protein, and fat intake, will also tell you what your overall caloric intake is.

d. Should I track my daily carbs in grams or servings?

Some people like to follow their nutrition plan precisely, while others prefer to approximate carbs by tracking carb servings. We recommend testing what works best for you.

e. How Lumen talks about carbs

When we recommend carbs, we're talking about digestible carbs, also known as net carbs. When figuring out your carbs for the day, you don't need to count the fiber or sugar alcohols since they can't be digested, or are partially resistant to digestion.

Understanding carbs

Carbs are macronutrients found in grains, legumes, fruits, vegetables and products derived from those foods. We eat them in our daily diet in the form of starch, fiber, sugar, and sugar alcohols. There are two types of carbs: digestible and non-digestible.

1) Digestible carbs Also known as net carbs, include starch and simple sugars, and contribute calories and energy to the body.

2) Non-digestible carbs These carbs include fiber, resistant starch, and sugar alcohols. They're not digestible or absorbed, and provide no calories to the body. Instead, they get metabolized by our gut microbiome or excreted.

Fiber is a non-digestible carb worthy of a shout-out. While it doesn't provide energy, it plays a big role in maintaining a healthy gut microbiome, and has a protective

effect against metabolic diseases, like diabetes type 2, obesity, cancer, and dyslipidemia, or elevated blood lipids levels.

Most foods contain both digestible and non-digestible carbs. An apple has both sugar, a digestible carb, as well as some fiber, a non-digestible carb. Lumen doesn't count carbs from the below veggies since they're fibrous, non-digestible carbs. They also have beneficial micronutrients and natural compounds that boost metabolism, so they should be included in your food plan:

-Raw vegetables

-Cooked low-carb vegetables like mushrooms, tomatoes, cauliflower, broccoli, asparagus, kale, spinach, radishes, brussel sprouts, endives, garlic, eggplant, and zucchini

f. Tools for tracking macros

Estimate macros using the servings method

If you're new to counting macros, or if you just want to get better at it, the first step is learning how to identify and measure portion sizes.

The serving method introduces the basics in macro counting, while providing an easy and reliable way to estimate the macros in food. The servings method allows you to keep track of your macros intake any time, anywhere, since you can use your hands and household measurements, like cups and spoons, to estimate the servings of every macro in a meal. Learn more:

How to measure portion sizes [click here to view the guide](#)

g. Nutrition labels

These days, almost everything we eat comes in a package. That's why it's crucial to understand how to read a nutrition label to accurately track macros and detect foods that contain nutrients that are both beneficial and harmful.

This nutrition label for whole wheat bread outlines the values used for counting macros in red boxes.

*Note: Nutrition labels may look different depending on the country

To count macros, focus on: Serving Size, Total Fat, Total Carbohydrate, Dietary Fiber, and Protein.

Serving size

A serving size is the quantity for one serving of that food. If you eat more than one serving, you'll need to multiply your macros by that number. So if you eat two slices of bread, you'll multiply your macro numbers by two.

For example: The serving size for this bread is one slice, and the total fat is the amount of fat in one serving. If you eat 1 piece of bread, your fat macro will be 1.5

grams. If you eat 2 pieces of bread, your fat intake will be 3 grams ($1.5 \times 2 = 3$)

h. Net carbs

These are total carbs minus dietary fiber. Remember that Lumen recommendations are for digestible carbs. This means that if the food has fiber, you'll subtract the amount of fiber from total carbs to get the digestible carbs.

i. Digestible carbs

The math is simple: Total carbs minus fiber.

For example: One slice of bread contains 21 g of total carbs, where 3 g corresponds to fiber. So, the equation would be: Digestible carbs = 21g (total carbs) - 3 (fiber) = 18 g of digestible carbs

Dietary fiber is subtracted because the body doesn't absorb fiber, meaning fiber doesn't contribute calories or energy, so fiber isn't considered part of your carbs macro. Lumen considers digestible carbs to be your carbs macro.

j. Protein

This is the amount of protein in one serving.

For example: In one slice of bread, there's 4g of protein. If you ate two slices of bread, you'd multiply 4g protein x 2, which equals 8g protein. Once you calculate your macros from the Nutrition Facts label, you can enter it into your tracking log or app.

Lumen Features

Visit the tools tab in your Lumen app to find two ways to help you apply your nutrition plan.

First, check out the Search toolbar. It'll help you discover a food's nutritional composition, or macronutrients.

Next, look for our Meal Inspiration. In the Lumen App, our meals will show you how to break down your macros recommendations into meals so you know what to eat during the day. Filter by your food preferences, allergies, or carb servings.

Weighing your food with a food scale

Getting super precise

The most accurate way to figure out your macros intake is by weighing your food with a scale.

We recommend using a food scale if you're:

- Experienced in nutrition and looking for a more accurate technique
- Not yet getting the results you're looking for (Lumen levels, weight, performance)
- Working toward a specific body composition goal (fat mass, muscle mass)
- Curious and just want to learn more about the real amount of food you are eating

Types of food scales

There are two types, basic and advanced. A basic food scale simply provides you with the weight of the food. Once you have that weight, the next step is to use a food database to calculate the macros. An advanced food scale has a built-in computer database of foods to tell you not only the weight of the food, but also the macros. For most people, a basic food scale works just fine.

How to use a basic food scale:

- 1) Turn the scale on and set it to grams or ounces.
- 2) Next, "Tare" the scale. This means setting it to zero. The scale should read 0.00 before you put food on it.
- 3) If your food is in a container, set the scale to zero with the empty container on the scale.
- 4) Once the scale reads 0.00, place the food in the container, or on the scale if you're not using a container.
- 5) Jot down the measurement on paper or in a macro tracking app, like 6) Use the food weight to figure out the macros (described below).

Using food weight to determine macros

MyFitnessPal, Lose It, or Carb Manager.

Let's go through an example together. We'll pretend we're measuring a piece of raw salmon that weighs in at 4.2 ounces. Here's how the process might go:

- 1) Search a food database or app. In this example, we'll search "salmon," using keywords like "Atlantic" or "wild".
- 2) There may be different entries for the same food. Choose a verified entry if available. It may have a green checkmark, indicating it's the most accurate.
- 3) When you find a match, enter the weight in grams or ounces. For our example, enter 4.2 ounces as the serving size.
- 4) The database will give you the macros, along with info for other nutrients.
- 5) If there's dietary fiber in the food, subtract it from total carbohydrates to get the digestible carbs as this is your carbs macro for Lumen.
- 6) Record the macros in your food log.

When using the MyFitnessPal database for "Fish, salmon, Atlantic, wild, raw" and changing the serving size to 4.2 ounces, it now tells us that the macros are 8g fat, 0g carbs, and 24g protein.

Food logs

If you want to follow a nutrition plan precisely, a food diary or food log can help.

Some favorite apps

Keep in mind, vegetables are a unique combination of minerals, vitamins, and natural compounds that improve metabolic function and satiation. **That's why you don't need to count the carbs from the below veggies as part of your daily intake.**

- All raw vegetables

- Cooked low-carb vegetables, like mushrooms, tomatoes, cauliflower, broccoli,

asparagus, kale, spinach, radishes, brussel sprouts, endives, garlic, eggplant, and zucchini

Why use a food log?

Food logs increase awareness about why we choose certain foods. Logging those decisions helps us visualize clear eating patterns and may even encourage some changes in habit.

A few thoughts to complement your food log

- Think about what you're eating. Write down everything you're eating and drinking.
- Think about how much you're eating. Use Lumen's portion size-guidelines to estimate the amount of food you eat.
- Think about when you're eating. Jot down the times when you eat your meals and snacks. .
- Lastly, think about how you feel when you eat. Emotions can significantly influence our food choices.

Should I log my food every day?

We recommend logging your food at least 3 days/week. Make sure to log one weekend day, and two weekdays. You can log more or less, depending on your goals.

3. HIGH MEASUREMENTS AFTER FASTING/LOW CARB MEALS

<https://lumen.force.com/helpcenter/s/article/I-just-ate-a-low-carb-meal-why-did-I-receive-a-high-score>

<https://lumen.force.com/helpcenter/s/article/Receiving-high-Lumen-Levels-after-multiple-days-eating-low-carb>

4. BREATH MEASUREMENT / WEIGHT LOSS PLATEAU / HIGHER READINGS WHEN YOU HAVEN'T EATEN ANY CARBS

Why do you want 1/2 in the morning and a RANGE of other measurements ?

Weight loss can plateau and your metabolism can become one dimensional if your breath measurements are ONLY 1/2 for the duration of the day.

This is because you are more likely to store carbs as fat if you aren't adapting to use them as fuel. I learnt this on the metabolic coach course with lumen that I started recently.

The aim with lumen is to get the body efficient at burning BOTH energy sources so when you eat carbs you can use them for fuel & become better at what's called CARB OXIDATION vs storing excess carbs as fat.

This is why Keto longer term can actually damage your metabolism's ability to keep weight and fat off unless you avoid carbs forever. Similarly the low carb/high fat days help your metabolism adjust, depleting your carbs stored as glycogen which in turn reduces insulin levels & the combo of these factors stimulates mitochondria to rely more on fat oxidation to produce energy.

Over time this enzymatic activity that is involved in fat oxidation increases the body's ability to burn fat as fuel.

In practice I started at 92.5kg. I have followed the plan pretty closely since end of October. By the beginning of June I was 71.5kg ...my goal weight. I switched tracks to fitness performance. At the beginning of August I weighed in at 68kg. Why do I share that ? Because my body continues to burn stored fat as fuel as it seems like it is better at fat oxidation than it's ever been at any point in my life.

I'm eating more, still following the 4 day plan that I'm generally on as I wake up most days with a 1/2. I'm training consistently but still losing a bit of fat on the way.

My flex score is 20.9 - The highest it's been at any point on the journey - I started at 8.0. I've struggled all my life with weight gain & finally feels like Lumen has helped to re wire my neural pathways & change the pattern.

I have eliminated refined carbs from my diet probably 90% / 10%, maybe even 95%/ 5% and that includes alcohol. I did that because I have read a lot about how alcohol loads the liver and impacts on metabolism of fats and carbs particularly if you are a peri MP or post MP women. It's harder for women to lose fat when we reach peri MP/ MP/post MP because there is a tiny amount of oestrogen found in fat cells and with the overall oestrogen deficit we face from this point the brain sends a message to hold onto the fat even though it's useless as an oestrogen supply. It's why we have a number of things to navigate to lose fat as ladies of a certain age!

The other thing to note is that breath measurements/what we are using for fuel is affected by many factors and not simply nutrition or exercise

levels/intensity. These factors also impact and the nervous system under stress will create a “fight/flight” response which will result in higher measurements.

The factors impacting our breath measurements include:

- Genetic predisposition
- Conscious Stress
- Sub conscious stress
- Hunger (nutrition deficiency)
- Sleep
- Gut bio
- Hormones
- Medication incl HRT
- Anything that affects your routine (we are creatures of habit in every respect!!)
- Exercise intensity
- Current metabolic flexibility
- Insulin resistance
- Adrenal glands and all of endocrine system
- Inflammation
- Illness of any kind

5. FREE VEGETABLES WHERE THERE IS NO NEED TO COUNT THE NET CARBS WITH LUMEN

The list of vegetables is as follows:

(I would personally be a bit cautious with the beets since they have a lot of sugar, but they do have so many other good things in them, so just don't have too much at once)

Alfalfa sprouts
Artichoke
Arugula
Asparagus
Bamboo shoots
Bean sprouts
Beans (green, Italian, yellow or wax)
Beets
Bok choy
Broccoli
Brussels sprouts
Cabbage
Carrots
Cauliflower

Celery
Cucumber
Eggplant
Fennel
Garlic
Green beans
Greens (beet or collard greens, dandelion, kale, mustard, turnip)
Herbs (parsley, cilantro, basil, rosemary, thyme, etc.)
Kohlrabi
Leafy greens
Leeks
Lettuce (endive, escarole, romaine or iceberg)
Mushrooms
Okra
Onions
Parsley
Peppers (green, red, yellow, orange, jalapeño)
Radishes
Rhubarb
Salad greens
Snap peas
Snow peas or pea pods
Spaghetti squash
Spinach
Sprouts
Summer squash
Swiss chard
Tomato
Turnips
Water chestnuts
Watercress
Zucchini

6. USEFUL ARTICLE ON CARBS FROM My Fitness Pal

<https://blog.myfitnesspal.com/the-keto-guide-to-fruit-which-to-eat-or-avoid/?fbclid=IwAR2Ov3cDPQplhHVpf8VpFxyvpH13RXKH0oBYmZJAXuG3cPHgqtatn5frz4Q>

7. WHAT ARE BOOST DAYS AND WHY DO I NEED THEM?

Answer

Extended periods of time with very high or low carbohydrate intake are not likely to be optimal for someone trying to become metabolically flexible, as the body loses some of the required enzymes needed to breakdown the food source that's been eliminated from one's diet.

Boost days will teach your body to use both carbs and fat as fuel. In the long term, this will give you the flexibility to handle different nutritional states and function efficiently carbs and fats. After several days of low carb recommendations and receiving low Lumen levels, Lumen gives you a boost day which is a high carb day and little to no fat intake. Additionally, boost days don't include a caloric deficit.

A high carb day will keep hormones in balance and will prevent a decrease in the resting metabolic rate (RMR). A decrease in RMR is the body's physiological response to a hypocaloric (diet with caloric deficit) diet and the reason why many diets work in the beginning but rather quickly come to a plateau. Our bodies adapt to dieting, which can slow the process down. Boost days can help jumpstart the process again by temporarily increasing carbohydrate intake.

It is important to note that on a boost day you are indeed recommended to eat a higher amount of carbohydrates, however, the meal plan includes foods rich in complex carbohydrates such as whole grains, legumes, and fruits. We recommend consuming these types of high-quality carbs. Those are carbohydrate-rich foods that also provide a good amount of fiber, micronutrients, and vitamins.

On boost days you will be asked to take a second breath 60-90 minutes after eating a high carb meal for Lumen to measure how your body has responded.

8. IMPACT OF WORKOUTS

Ok so here is a great example of breath measurements post 2 different types of work out. Both undertaken early in the day and both cardio. Both with a preceding carb snack ... (though today no pre ride protein)

1. Picture on left low intensity - zone 1 to top of zone 2 Heart rate so average for ride was 120. 80 mins.

2. Picture on right zone 2/3/zone 4 with some anaerobic efforts in the session - 45 mins. Average HR was 130. Max was 153

Both are good and valid in the workout schedule.

The left one at an intensity for burning fat during (I actually took my measurement 15 mins after finish as well & HR was 70 which is high for me - RHR 45-50) and the right hand one a mix of carbs and fat burning.

The more intense you make the session the more likely you are to burn carbs during BUT the impact may be longer calorie burn after and therefore potentially more calorie deficit overall = more fat loss in the long term so you can achieve your goals either though my recommendation from my journey is if you do cardio 4 times per week ...do 3 longer

lower intensity and 1 higher intensity. If you don't have time to do 4 then retain 1 higher intensity but make sure you do the sustained efforts too. The other benefit is the more intense efforts take longer to recover from especially if you are peri or post menopausal so being kind & reducing stress will help your bodies to be better at losing fat.

08:48 📶 🔋

+ Add today's workout ?

Today's measurements

- 2 wake up 06:17

- 2 Pre 80m Cycling 06:25
Morning Measurement

- 1 Post 80m Cycling 08:46

Your commitment this week

Great work! You managed to wake up in a state of fat burn twice this week.

Today
Tools
Me

08:49 📶 🔋

✕

- صلاة wake up 2
05:31
- صلاة Morning 2
05:38
- صلاة Before eating 2
05:57
- صلاة Pre 55m Cycling 4
06:44
- صلاة Post 55m Cycling 3
08:33
- صلاة Post 45m Cycling 3
08:56
- صلاة Post 45m Cycling 3
09:32
- صلاة Before sleeping 3
22:00

- 🌸 Monthly cycle Day 19
Phase 4 - Post-Ovulation
- 🚴 Cycling 45 min
- 🚶 Other 10 min

9. 🧑🏫 Teaching your body to burn fat VS training your body to burn fat. 🔥

🧬 Gluconeogenesis: the production of new glucose.

🪄 “Glucose is the body’s preferred fuel source”

📈 Supply and demand is the core principle of business and our bodies.

🔋 Mitochondria is the powerhouse of the cell, we push carbs or fat in and get ATP out. ATP is the energy currency of the body. The body only cares about ATP. It needs X amount of ATP to do a task.

😓 When I see people say my lumen can’t be right because I’m fasting or I’m keto. How can I be a 3-4-5? (Hint: because your are burning carbs)

🤔 I think perhaps you are trying to teach your body to burn fat NOT train it.

😊 What I mean by this is... if your mitochondria has years of glucose metabolism, then when you try to teach it to burn fat with a low carb diet. It can take time, it needs to physically adapt and restructure.

🛡️🚗 Taking your petrol car and changing it to Electric takes time. Physical work must be done. You can’t just plug it in and hope it charges.

😓 Your default is carbs. Every time you dip out of your low carb diet.

🛑 Adaption stops.

😓 Every time you get stressed, your body creates new glucose, from lean tissue and


🛑 Adaption stops.

This can be anything and everything.

😓 Poor Sleep

💪 High intensity exercise


😓 Work stress

 Life stress

 Scary or exciting movies


 Arguments

 Illness

 Every time you place a carbohydrates demand on the body through exercise, really anything that takes you past 70% of your maximum heart rate. Your body meets the demand with glucose, either from carbs in the bloodstream, glycogen stores or gluconeogenesis.

And...

 Adaption stops

 This is supply and demand. If the cells/mitochondria demands glucose, the body will supply it.

 My solution is simple. Change the demand not the supply.

 Train the body to become a better fat burner

1 Part one. Destress. Actively remove stressors. Then change your perception of the stress. Have a breathing practice try I coherence breathing 6 sec inhale 6 sec exhale.

Why? Your sympathetic system a.k.a. your fight or flight systems main fuel is carbs\glucose. Remove the demand.

2 Part two. Do low intensity exercise and build an aerobic base.

If person A can hold 160W at a 120hr they are a great fat burner

If person B can hold 60w at 120 hr they are poor. I really don't think a low carb diet will work to help improve this.

Person A will be much more resilient, at rest they can do so much more work while not relying on carbs. person B I my opinion must improve their aerobic base with low intensity exercise. Actually training mitochondria to burn fat. At higher intensity, not high intensity.

3 Part three. if you are doing an workout or training at a higher intensity eat some carbs. Gluconeogenesis is a backup system. If you have carbs in your system you do not need to use it.

10. When do I want to receive a low/high Lumen level?

Answer

When you take your morning fasted breath measurement, you would ideally want to receive a Lumen level of 1 or 2. This indicates that your body has shifted into burning fat while you were sleeping and subsequently fasting for a short period.

One to two hours after eating a meal that contains carbohydrates you would ideally want to receive a Lumen level of 4 or 5 indicating that your body has registered that it has been fed and can draw energy from food rather than your fat stores.

The ability for your body to shift efficiently and quickly between energy sources (fats, carbs, or a combination of both) is called metabolic flexibility. Ideally one would want their metabolism to burn the energy from the food you eat and when it is done, shift to your fat stores relatively quickly.

The main aim of Lumen is to train your body to be metabolically flexible by using a nutrition plan customized to you and your metabolism.

11. Why do I get higher Lumen levels during a fast?

Answer

When in a fasted state for an extended period of time you may see an elevation in your Lumen level and this is normal. We recommend reading the following article explaining this phenomenon - <https://www.dietdoctor.com/why-does-blood-sugar-increase-during-a-fast>. [see end of document]

Essentially when you fast, insulin levels start to drop and this triggers a surge of counter-regulatory hormones, including noradrenaline and growth hormone. This is normal and meant to pull some of the stored sugar from the liver into

the blood. If your liver is full of sugar, it may release lots of sugar into the blood, causing the blood sugar to rise.

12. MONTHLY CYCLE AND IMPACT ON BREATH MEASUREMENTS AND BODY'S CHOICE OF FUEL

Question

How does my monthly cycle impact my Lumen levels?

Answer

There are three phases within your menstrual cycle that your Lumen levels may be higher than usual. During phase 1 (menstruation), phase 3 (ovulation) and during phase 5 (premenstrual). In those phases, you might find it harder to burn fat efficiently and tend to burn more carbs for fuel resulting in potentially higher Lumen levels.

During menstruation both progesterone and estrogen are at their lowest, which means there's no significant impact on what your body chooses for fuel. However, in this phase, it's possible you may experience higher levels of cortisol, a stress hormone, as well as inflammation, which could stimulate your body to use more carbs as fuel. Women typically find it harder to burn fat efficiently and tend to burn more carbs for fuel due to an increase in this stress hormone.

On the day of ovulation, the progesterone level increases and your estrogen level decreases. This means you may find it harder to burn fat efficiently and will tend to burn more carbs for fuel due to a decrease in insulin sensitivity.

During your premenstrual phase both progesterone and estrogen are decreased. This means you may find it hard to burn fat efficiently and will tend to burn more carbs for fuel due to a decrease in insulin sensitivity. In addition, cortisol is being released. The increase in this stress hormone makes your body less efficient at burning fat for fuel.

On the other hand, during the estrogenic phase of your cycle (days 7-13) progesterone decreases and estrogen increases. This makes women's bodies

more efficient at burning body fat due to an increase in insulin sensitivity and you may find it easier to receive low Lumen levels.

13. YOU TUBE VIDEOS TO HELP

https://youtu.be/7_IQTYXmJXM - Lumen for beginners

<https://youtu.be/CCioA-eLzUQ> - me Tab instructions

<https://youtu.be/00KI2Cj2gps> - healthy fats

<https://youtu.be/lofdEO82pU0> - workouts and breath measurements

https://youtu.be/YKnCO_H1xmE - Lumen and hitting your protein target

<https://youtu.be/AfwhW3FOie4> - Lumen and carbs

https://youtu.be/y_nqOXAXOwc - Lumen and how I lost 50lb

14. LINKING MFP / APPLE HEALTH

1. First authorise Lumen app in settings on lumen app
2. Open apple health on your device
3. Go to your profile (top right hand corner)
4. Select profile
5. Select privacy and apps
6. Select your nutrition track and give permission for apple health to sync all data to apple health - switch all categories on
7. Select Lumen app - give permission to sync all lumen / apple health data.

DR JASON FUNG

Why is my blood sugar increasing during a fast? Will reversing diabetes prevent arterial plaque production in the future? And can keto and intermittent fasting help reverse thyroid disease (Hashimoto's)? It's time for this week's Q&A about intermittent fasting and low carb with Dr. Jason Fung:

Increasing blood sugar when fasting

Why does my blood sugar level increase from 86 to 112 mg/dl (4.8 – 6.2 mmol/L) when I do a 20-hour fast? Is that normal? I'm on an LCHF diet. Thank you doctor,
Alvaro

Answer: This is a normal process. When you fast, insulin levels start to drop and this triggers a surge of counter-regulatory hormones, including noradrenalin and growth hormone. This is normal, and meant to pull some of the stored sugar from the liver into the blood. If your liver is full of sugar, it may release lots of sugar into the blood, causing the blood sugar to rise. So, yes, blood sugar may rise during fasting. The most important question to consider, though, is where this sugar came from.

If you are not eating, the rise in blood sugar may only come from your own body. You are simply moving sugar from the liver to the blood. It means that there is too much sugar stored inside your body and you need to empty it out, either with LCHF diet or intermittent fasting
Dr. Jason Fung

Arterial plaque

Reversing diabetes and therefore inflammation should stop future arterial plaque production, right? Does reversing diabetes cause plaque to recede from arteries already affected? Are there any studies on this?

Answer: Diabetes is a very strong risk factor for heart disease and arterial plaque. Reversing diabetes should theoretically lower the risk of plaque disease, but there are no studies that conclusively demonstrate this. That is probably because most people consider type 2 diabetes to be a chronic and progressive disease, like aging. So, yes, I think it will reduce risk of heart disease, but no, there are no studies to prove this.
Dr. Jason Fung

Hashimoto's, fasting and keto

I believe there is a way to reverse Hash! I feel so much better on keto and IF than any treatment over the past three years. Have you had any patients reversing Hashi with this program?

Answer: I don't see Hashimoto's very frequently so don't have much experience. Fasting and low carb diets usually drop insulin so are effective for diseases of excessive insulin such as obesity, type 2 diabetes and PCOS. However, it may also have a smaller effect on inflammation so it may certainly benefit Hashimoto's as well, but there are no studies to prove this, and I have only limited clinical experience with Hashimoto's. Dr. Jason Fung