

Dr High Metabolic Clinic

Live in health through therapeutic nutrition

Introduction

This clinic introduces you to a new way of eating that is low in sugar, starches and refined carbohydrates. This is a lifestyle, not a diet. It focuses on eating real food such as meat, fish, eggs, salads, vegetables and healthy fats. It eliminates the sugars and starches that lead to metabolic diseases such as diabetes, fatty liver and obesity through chronically elevated insulin. You will transform your body from burning glucose for fuel, to burning fat for fuel – by *lowering insulin levels*, with weight loss as a result.

LCHF stands for Low Carb Healthy Fat. A low carb diet consists of fewer than 120g carbohydrate intake daily. Sugars and starches are “carbohydrates”. In order for your body to maximize its fat burning abilities, your carbohydrate intake will be **25g or less per day**. (By comparison, the Standard American Diet (SAD) consists of 250-350g of carbohydrates per day.) You will need to avoid bread, pasta, potatoes, corn, crackers, flours, oatmeal, all grains, and sugary foods. As you eliminate these from your diet, hunger and cravings will go away. Depending on your level of metabolic derangement, you may be able to increase your carbohydrate intake to 60-100g per day during the “maintenance phase”. This will be addressed on an individual basis.

This therapeutic diet will challenge “common knowledge” and traditional beliefs about diet and eating. It will require ***emotional acceptance*** of a very different way of eating and living. For more information about insulin and the hormonal theory of obesity, please read *The Obesity Code* by Dr. Jason Fung.

Possible (and likely) Benefits

- Improve blood sugar levels and decrease diabetes medications
- Improve fatty liver
- Reduce blood pressure and decrease antihypertensive medications
- Improve cholesterol profile (increase HDL, decrease triglycerides)
- Reverse insulin resistance
- Improve cardiac biomarkers such as ApoB/apoA1 ratio
- Regulate menstrual cycle irregularity and increase fertility related to PCOS
- Decrease gastrointestinal bloating, reflux, IBS symptoms

- Decrease hunger, food and sugar cravings
- Increase mental clarity and energy levels
- Possible reduced risk of dementia

Possible side effects

Every therapeutic intervention has some side effects. Though these are not medically serious, they can be bothersome - they will improve with time! Here are some recommendations to help minimize these side effects.

Carb “flu” (headaches, fatigue, difficulty concentrating, generally feeling unwell)

This usually happens in the first 3-5 days of transitioning to LCHF. It should pass. Drink lots of liquids and salt. High sodium bouillon (beef/chicken broth) is an easy way to accomplish this – do not use if you have heart failure. In the first week of LCHF, you will lose a lot of water and salt in your urine and you will need to increase your intake to compensate for this (recommend 1.5-2 tsp salt daily if no heart failure or cirrhosis).

Constipation

This is one of the most bothersome side effects. A few tips:

- Increase water and salt (1-2 tsp/day)
- Add ½ cup fiber-rich vegetables to your diet per day
- 1 tsp milk of magnesia at bedtime daily
- Use sugar-free Metamucil or psyllium husk twice a day (with lots of water)
- While on toilet, raise your feet with a stool (google Squatty Potty)
- If all of these fail: Restoralax once daily can be added to the above
- If the issue persists, consult your healthcare provider.

Sugar cravings

As mentioned above, these should disappear as you continue on a low carb diet. If they reappear, you may be having too many carbohydrates and you need to look closely for hidden sugars/starches in your diet. Cravings can be treated temporarily with sugar-free jello with whipped cream or >80% dark chocolate.

Ketosis

A very low carbohydrate diet will result in “nutritional ketosis” – that means your body is breaking down fat and producing a byproduct called ketone bodies. This is different from diabetic ketoacidosis. Nutritional ketosis is safe. If you wish, you

may measure your level of ketones in the urine using Ketostix (available over the counter at pharmacies) or blood (purchased online). It is not required for success.

Vitamins and Supplements

It is recommended that everyone take Vitamin D 4000IU daily, as low vitamin D is correlated with obesity and poor metabolic health. You may take a multivitamin if you wish, particularly if you don't have a lot of variety in your diet. Women of child-bearing age who are looking to become pregnant should take folic acid.

Cholesterol

Many people are concerned that eating more fat will negatively affect their cholesterol levels. Most people eating LCHF will see improvements in their cholesterol values, particularly decreased triglycerides and increased good cholesterol (HDL). Some people will have an increase in their LDL cholesterol. We will monitor bloodwork every 3-6 months depending on your progress.

Intermittent Fasting (IF)

"Fasting" involves not eating anything, this further lowers insulin levels and helps improve metabolic problems and increase weight loss. IF can take many forms, including 16:8 (16 hour fast, 8-hour eating window), 5:2 (5 days of eating, 2 days of fasting), 3 days up to 2 weeks. IF is easiest once fat-adapted.

Other factors affecting metabolic health

Your diet is not the only thing to affect your overall metabolic health. In order to optimize the benefits of your dietary changes, pay attention to the following:

Sleep

Poor sleep quality and insufficient sleep is associated with increase hunger (increased ghrelin hormone), cortisol (which increases insulin resistance) and weight. If you have frequently interrupted sleep, severe snoring or apneas, you may have a condition called Obstructive Sleep Apnea (OSA) and you should discuss this with your physician. Untreated OSA can lead to difficulty with weight loss and is an independent risk factor for strokes and high blood pressure. Try to go to sleep before 11pm and create a healthy sleep environment by avoiding blue screens (computers, TVs, cell phones) within 1 hour of bedtime. Avoid caffeine in the evening.

Medications

In your initial consultation, we will look at your current medications and address any culprit medications affecting weight loss. If your medications change, please notify Dr. High. Many common medications such as antihistamines, antidepressants, betablockers, diabetes medications, corticosteroids and antipsychotics can lead to weight gain. Often, there are alternative agents that can be used instead.

Smoking

Smoking is one of the biggest cardiovascular risk factors. If you need help, talk to your physician about smoking cessation aides. It is the best thing you can do for yourself.

What if I “fall off the wagon”?

You didn't learn how to ride a bike the very first time. If you fall off, get back up right away. If you over-eat carbohydrates, get back on track with the next meal. This way of eating must be followed strictly in order to succeed. Eating more carbohydrates will stall weight loss for up to 3 days and kick you out of ketosis. Also, yo-yo dieting has been shown to have more detrimental effects by lowering metabolism than simply staying at a heavier weight.

Food Addiction

If you suffer from addiction to food, find yourself eating in secret, feel shame around eating, overeat in a short amount of time, or find yourself constantly thinking about food, I strongly recommend you first complete the Food Addiction program run by Sandra Elia prior to participating in the Dr High Metabolic Clinic as you are much more likely to be successful. Another great resource is the podcast by Katrina Ubell MD available on the Podcast app and iTunes.

What to expect from the clinic

Frequency of visits

You will be seen once a month for the first three months, then every 3-4 months thereafter unless there are medical reasons to increase the frequency of visits. Unfortunately, there are OHIP limitations on the number of visits. If you require more support, you may enroll in the Members Only program at a small fee, which

provides more frequent visits with the Nutritionist, online group support sessions facilitated by Dr. High or the nutritionist. Please discuss with Dr. High if interested.

Nutritionist

Aaron Jeffery is the nutritionist working in the LCHF clinic. He has a personal interest in using a Low Carb nutrition approach to treat obesity and has been working as a Bariatric Educator in the Wharton Medical Clinic for over two years. Aaron has a degree in Medical Sciences and is a competitive MMA fighter.

Food diaries

While not required, a food journal is highly recommended. Research shows that those who document their food intake, have more successful weight loss. Food journals help with accountability and staying on plan. In the ideal scenario, a keto/LCHF way of eating results in decreased hunger and naturally produces a calorie deficit over time that helps with weight loss. However, for people who experience a weight plateau or who struggle with portion sizes or emotional eating, a food journal ensure mindful eating. This will also show you if you have “hidden” sugars/starches in your diet.

The simplest method is to write what you are eating in a paper journal. If you prefer, you can use an app such as Senza, Carb Manager, Keto Diet Tracker, or MyFitnessPal.

Cancellation/Rescheduling an Appointment

If you are unable to attend an appointment, the Dr High Metabolic Clinic requires at least 24 hours’ notice, so that your appointment time can be reallocated to someone else. Appointments are in high demand, and your early cancellation will give another person the possibility to have access to timely medical care. Late cancellations will be considered as a “no show”.

“No Show” Policy

A “no show” is a patient who misses an appointment without canceling 24 hours in advance or fails to present at the scheduled appointment time. This will be recorded in the medical chart as a “no show”. After two “no shows” to the clinic, the patient will be charged the visit fee of \$75. The patient will be able to

reschedule only upon payment of this fee. After three “no shows”, the patient will be discharged from the clinic as this program requires commitment in order to be successful.

HOMEWORK for your next visit

COMPELLING REASON – Write down your most compelling reason(s) for wanting to lose weight and change your eating habits.

COMMITMENT STATEMENT – Write down a commitment statement to yourself including your Compelling Reason. “I am committing to eating within boundaries so that”

Go to www.whartonmedicalclinic.com and click, “For Patients”, then “Low Carb Handouts” to access the online resources.

At each visit, please bring

- your *food journal* and
- a *notebook* to take notes
- Please do your bloodwork (if requested) at least one week before your clinic visit. If you have not completed your bloodwork and do it after your visit, you will be asked to book another follow up to review your bloodwork results.

How to Get Started

The following pages provide instructions on how to eat. Follow the protocol for your plate and you can implement no matter where you are: home, vacation, restaurant. If you need more guidance, a 2 week meal plan from Diet Doctor has been provided online. Click the “2 week challenge” link for a complete meal plan with grocery lists and recipes.

You will be learning a whole new way of eating and there will be a learning curve. You will have to experiment in the kitchen. Over time, you will find this way of eating enjoyable if you invest the time to learn what it looks like. The more you read from the recommended resources online, the more likely you are to succeed in the long run.

Low Carb Therapeutic Diet

Basic Principles

1. Fat is the main source of calories.
2. Protein is consumed to meet needs.
3. Carbohydrates are minimized.
4. Eat only when hungry. Ideally 3 (or fewer) meals per day.
5. No sugars, no starches, no snacking.

Healthy Fat

1-2 tbsp Butter, ghee, olive oil, coconut oil per meal.
OR ¼ cup nuts and seeds (walnuts, pecans, macadamia, hazelnuts, almonds). Avoid pistachios, cashews, peanuts.

Max 4 oz cheese daily.

Max 2 tbsp whipping cream daily.

Max ½ avocado daily.

Protein

Meat: beef, pork, lamb, veal, chicken, turkey, fowl, sausage. Limit processed meats (ham, bacon, deli meats, hot dogs).

Any fish & shellfish: try to eat fatty fish at least twice a week (salmon, tuna, sardines, mackerel, trout).

Vegetarian options: tofu, tempeh

Eggs: no restrictions



Non-starchy vegetables must be eaten daily

2-4 cups leafy greens: arugula, bok choy, cabbage, chard, chives, endive, collards, spinach, kale, lettuce, parsley, watercress (if it is a leaf, you can eat it!)

1 cup non-starchy veg: asparagus, broccoli, cauliflower, cucumber, eggplant, green beans, okra, bell peppers, zucchini, rhubarb, tomatoes, snow peas, shallots, Brussel sprouts, celery, spaghetti squash, artichokes, mushrooms, sauerkraut, fennel

Drink plenty of water (enough to keep your urine light in colour)

Add extra salt (unless you have heart failure)

	FOODS TO EAT	FOODS TO AVOID
BEVERAGES	Water (can add lime, lemon, etc.), coffee & tea (no sugar, cream fine). Minimal low carb alcohol (dry wine, hard spirits).	Pop (regular and diet), fruit juice, smoothies (esp. purchased), any drinks with added sugar, beer.
MEAT / FISH / POULTRY	Eat any cut of meat and fish. Choose frozen and whole cuts to minimize cost. Canned fish. Tofu and tempeh are good vegetarian options.	Fish sticks, chicken nuggets, anything breaded or processed. Minimize processed vegetarian products.
EGGS	Eat eggs any way you like!	
VEGETABLES	Eat fibrous vegetables liberally, cooked any way you like (ex. in butter, with cheese). Choose frozen to save money. Minimize root veggies.	Canned vegetables with added sugar. Frozen hash browns (contain trans fats). Fast-food and restaurant fried potatoes. Corn, potatoes.
FATS / OILS	Olive oil, avocado oil, coconut oil, butter, animal fats. Olives. ½ avocado.	Canola oil, margarine, vegetable oil, grapeseed oil.
FRUIT	Choose whole fruits, especially berries, avocados, peppers, tomatoes, cucumbers.	Juices, smoothies. Avoid tropical fruits (mango, papaya, banana) & dried fruits.
DAIRY	Full-fat yogurt (5-10% plain), cottage cheese, cheese, cream and butter. Some full-fat milk (3.25%).	Sweetened yogurts or yogurt drinks; skim milk and other low-fat dairy. Cheese “products” (with sugar, etc.).
NUTS / SEEDS <i>Max 2 servings/day</i>	Walnuts, pecans, macadamia nuts are best for low carb. Pumpkin seeds, sesame, sunflower & chia seeds.	Nuts or seeds with sugar added. Cashews and pistachios have the highest carb content.
BEANS / LEGUMES <i>Rarely</i>	Edamame beans and lentils are lowest carb. Other legumes in small portions.	Baked beans or canned beans with sugar. <i>*If you have diabetes, monitor your sugars to see how you react to any foods in this food group.</i>
SNACKS – <i>only if truly hungry!</i>	Fresh vegetables, hard-boiled eggs, 2 oz cheese, 4 shrimp with guacamole, ¼ cup seeds/nuts, 3-6 olives, sugar-free jello, pork rinds, pepperoni slices, beef jerky	Anything processed, granola bars, pudding, baked goods, ice cream, most protein bars.
BREADS / GRAINS	Avoid as much as possible. Try NuPasta or Shirataki noodles as a carb-free alternative!	Breakfast cereal, pasta, rice, granola, bread, oatmeal (esp. instant).
SUGARS & SWEETENERS	Use non-sugar sweeteners like Swerve/monk fruit/Stevia rarely.	High-fructose corn syrup, sugar, honey, maple syrup, agave, fruit concentrate, all aspartame-based sweeteners.