# Week 5 & 6: Metabolism boost

## Can I eat low carb for a long time?

The highly effective fat loss seen when following a low carb diet can make it very appealing to follow in the long term, but the reality is that if followed for more than 3 months, most people start to experience symptoms and their weight plateaus. If you are loving the 'Fat burn' stage of this plan, it's fine to extend this for a few weeks, or even a couple of months, but after this time, it will likely be less effective. Why? Your metabolism! Key to this plan is ensuring that your metabolism stays nice and high, so that's what we will be concentrating on in these final 2 weeks.

## Cutting calories and killing your metabolism

Consistent low-calorie diets are still commonly followed, and shockingly still recommended by a lot of health care practitioners. I say shockingly as studies prove again and again that reducing calories each day over a long period of time will reduce your metabolism and weight is regained as a result.

When following a low-calorie diet, your body thinks that food is scarce, and will desperately send signals to hold onto your body fat to protect you. It does this in many ways, from reducing your heat production to lowering your thyroid hormone production. On top of this, your hunger hormones will increase in an attempt to get you back to your body set weight (the weight your body likes to stay at).

### *Tricking your body – calorie cycling*

It is only after a few days of not eating much that your body starts to notice something is up, and as soon as you have a high calorie day again, it happily carries on as normal. This knowledge is vital for being able to reduce calories only part of the time, known as calorie cycling. This is much more effective than reducing calories every day as you can keep your metabolism high! This way of eating has successfully shown to work with various versions including the '5:2 diet' and 'intermittent fasting' diets. The main principle behind them is that on some days you fast (or eat very little) and other days you eat normally.

### *Fasting to boost metabolism*

The idea of fasting is pretty daunting if you've never gone a day without food, but we fast every night we are asleep, and if you have recently adopted the 8-hour eating window, you will already be fasting for 16 hours each day which can be very effective for weight loss.

You may assume otherwise but fasting actually boosts metabolism and improves energy production. Believed to be your body's mechanism for revving you up to find more food.

## Your satiety hormone & feasting on carbs

Leptin is a hormone produced in fat cells which helps to keep you satisfied while reducing your appetite. When body fat increases, this raises leptin levels to reduce your appetite to get you back down to your body set point. When you lose body fat however, leptin production goes down, leaving you feeling unsatisfied, a feeling we've all felt when trying to lose weight!

### *Leptin sensitivity*

Rather than simply trying to increase leptin, it's even more effective to increase your sensitivity to it, so that your body feels the effects of satiety with less of the hormone.

When eating a large carbohydrate-based meal, this produces leptin and insulin, which work together to help you feel satisfied. Eating this way every day reduces your sensitivity to leptin as your body is so used to having it around, but if you do this only occasionally, it has the opposite effect.

Feasting on carbs once a week is a perfect tactic to keep you satiated, keeping leptin production high enough, and your body leptin sensitive. Carbs are not evil after all!

## Carbs & your thyroid

Your thyroid gland determines your metabolic rate so it's essential we keep this in good working order! Following a very low carb diet for a long time (a few months or more) may start to affect your thyroid gland by reducing conversion of certain hormones. This in turn may reduce your metabolism.

To ensure that your thyroid hormone production is kept to a healthy level, eating a large carbohydrate meal once a week can help to keep this in check.

## Calorie cycling

Taking into account all of these methods to increase your metabolism, here is a rough guidance you may wish to follow to include fast days (or light days), normal days to reflect how you have been eating over the last 4 weeks, and a feast day. Remember without a feast day your metabolism may become sluggish.

### *Carbohydrate guidance*

You do not need to count exact grams of carbs but keep these low as you have been doing so far, except for the feast day when you can eat carbs liberally.

| | **Body weight less than 65kg** | **Body weight 65kg or more** |
|---|---|---|
| **Light day x 2** | 20-30g carbs | 40-50g carbs |
| **Normal day x 4** | 30-40g carbs | 50-60g carbs |

| | | |
|---|---|---|
| **Feast day x 1** | 200g carbs | 300g carbs |

***Calories***

The number of calories you consume depends on many variations from muscle mass to your activity levels, so this is only a rough guidance:

| | **Body weight less than 65kg** | **Body weight 65kg or more** |
|---|---|---|
| **Light day x 2** | 500 calories | 600 calories |
| **Normal day x 4** | 1800 calories | 2200 calories |
| **Feast day x 1** | 2500 calories | 3000 calories |

***Light day***

Aim to have 2 light days each week, where you are significantly cutting your calories to 500-600. As you are already eating low carb, this should be much easier for you now that your appetite has adjusted. Some people prefer to save all calories for one meal, whereas others decide to split these over 2-3 very small meals. Do what works for you.

If you are being a real keen bean, you could increase this to 3 x light days per week, but no more than this. Also, do not have 2 light days in a row, ensure that you split them up in-between normal days.

***Normal day***

Have 4 normal days each week, similar to the way you have been eating over the last 2 weeks. Keep on eating within an 8-hour window too. You do not need to follow the calorie suggestions in the table above, this is just a rough guidance, so simply eat when you are hungry.

***Feast day***

Once a week, go all out! The day you have been waiting for, feasting on carbs to keep your metabolism high. Some people like to call this a 'cheat day' but there's no cheating in this plan, it's a feast day, it's allowed and actually encouraged! Increase your calories on this day too. This does not need to be the same day each week, so you could plan it around social events. If you know you have a dinner out with friends, plan this to be your feast day.

## Are all carbs equal?

It's easy enough to count grams of carbs in a certain food, but surely carbs in fruit can't have the same effect as a sponge cake? It's true that carbs are not equal, so rather than simply concentrating on the number of grams you are eating each day, also consider other aspects of that food, or what you are eating it with.

***Fibre slowing release of carbs***

If you eat 15 grams of carbs from a slice of white bread, there is only about 1g of fibre, whereas a slice of brown bread also with 15 grams of carbs contains more than 3 times the fibre. This extra fibre slows down the release of glucose molecules into your blood, meaning that you release less insulin = less fat storing!

As most low carb foods are low in fibre though, it can be difficult to get enough fibre, often resulting in digestive issues, hormone imbalances and even skin breakouts as a result. Ensure that you have plenty of green vegetables such as spinach, broccoli and kale, all very low carb but full of fibre.

***Processed carbs***

Foods which have been overly processed such as cereal and crackers are broken down so quickly in the body that they result in a much bigger spike of insulin, even for the same number of carbs to a banana for example. Keep in mind that if it looks processed and packaged, then it's most likely going to be broken down faster than natural foods such as fruit. Rice crackers are a classic example of this, they may seem healthy, but they spike insulin so much more than if you were to cook plain rice.

To highlight this effect, high refined sugar intake is associated with type 2 diabetes, but fruit consumption is not, possibly due to the fibre content regulating blood sugar levels.

***Fat slowing release of carbs***

Eating fat with a meal also slows down the release of glucose into your blood from any carbohydrate foods, so rather than having carbohydrates on their own, aim to have with fat. For example, an apple on its own is digested very quickly, whereas adding a dollop of almond butter significantly slows down the release of sugars.

***Nutrient value***

We mustn't forget the nutrient value of foods. Even if two foods contain exactly the same grams of carbs, one may be more nutrient dense therefore better for your health.

Let's compare a can of coke to a glass of orange juice. They both contain roughly the same grams of sugar, but the orange juice will provide vitamin C. Although I still wouldn't recommend drinking orange juice for weight loss, one is clearly healthier than the other due to the nutrient levels.

## Sparing your muscle when fasting

If you choose to eat all of your calories at dinner time on your light days, you will have fasted for around 24 hours (since dinner the night before).

The idea of fasting, or even going 24 hours without food can often scare people into thinking their muscles are going to waste away, but interestingly the opposite occurs. When you don't eat for 24 hours, your body releases growth hormones to ensure that your muscle is conserved. If your body thinks food is scarce, it needs you to have high energy levels and good strength to find more food.

Your body would only start burning through muscle if you were actually starving and very thin, and 'starvation mode' which people like to call it does not occur if you have enough body fat.

## Timing your work outs

The time you choose to exercise can impact how effective your weight loss may be, especially when considering the types of foods you may be having before and after your training session.

### *Carbs before exercise & protein after?*

The routine of eating carbs before exercise to fuel your muscles and protein after to replenish them is commonly followed. Carbs may help to give you that boost of energy, but it means your muscles are dependent on carbs from your diet, and they won't get the chance to run on fat. Your muscles also do not need to be topped up with a protein shake straight after exercising, as your body contains a pool of amino acids (protein building blocks) which can be accessed at any time.

### *Training when carb depleted*

Clued up long-distance runners have started to train when their carb stores are completely depleted to try and encourage their muscles to become better fat burners. Marathon runners that are carb burners will often 'hit the wall' after 2-3 hours of running when their carb stores run low, whereas athletes that periodically train on a low carb diet (but race on carbs) may be able to run 3-4 hours while maintaining some of their carb stores to keep their high pace without reaching exchaustion.

You do not need to go to quite extremes if not training for a marathon, but it's useful to understand that training while depleted of carb stores can be highly beneficial. Even gentle exercise in a fasted state in the morning, or a brisk walk before your first meal can rev up your fat burning potential.

### *Carbs after a workout*

Aim to exercise when you have not eaten carbohydrates for at least 3 hours. This could be first thing in the morning, or before dinner perhaps. The best time to save your carbs is for after a workout. Your body is also more insulin sensitive after exercise, meaning that your body does not have to produce as much of the fat storing hormone at this time to bring your blood sugar level down.

### *Training after feast days*

Try to exercise the day after a feast day (ideally the next morning), to bring your carb stores back down as quickly as possible to get you back into the fat burning stage. By this point your body should be able to easily switch between carb burning and fat burning, but keeping your carb stores low will help.

## Week 5-6 summary

| **Fat burn - summary** |
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| • Cycle your calorie intake, having 2 x light days, 4 x normal days and 1 x feast day each week (see table) |

- On your feast day, include 200 – 300g of carbs to keep your metabolism high
- Continue eating during an 8-hour window or less e.g. 10-6pm or 12-8pm
- Exercise when you have not eaten carbs for at least 3 hours
- Exercise the day after a feast day
- Continue to only have alcohol on one night per week – no more than 6 units on this day