

# The Ultimate Guide to Healthy Weight Loss

Learn why some people struggle with weight gain, and tips to help you on your weight loss journey.



# Contents

## Chapter 01

Why do we get hungry?

03

## Chapter 02

Foods that keep you fuller for longer

06

## Chapter 03

Should you eat breakfast  
to lose weight?

10

## Chapter 04

Meal replacement shakes -  
are they healthy?

24

## Chapter 05

Cheat meals - are they ever  
a good idea?

34

## Chapter 06

How to stop weekend bingeing

44

## Chapter 07

Tips to cut down on sugar

50

## Chapter 08

The best exercises for weight loss

56

## Chapter 09

The relationship between stress  
and weight

64

## Chapter 10

Is your weight loss struggle genetic?

72

# Introduction

Let's face it, losing weight is anything but easy.

Most of us have, at some point or another, had to try and lose a few (or more) pounds - and it can feel like torture.

Diets are notoriously difficult to follow. And, nine out of ten times, they don't actually work. Many of us fall into the yo-yo trap, losing a little weight only to gain it all back the minute we stop dieting.

If you've tried everything from the grapefruit diet to cabbage soup for every meal of the day, this guide's for you. We'll show you how to ditch the diets and lose weight the healthy way, through balanced nutrition and exercise.

It's not as hard as it seems...

# Chapter 1

## Why do we get hungry?

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Everything that we feel, think, and do is mediated by the chemicals in our brain - including hunger.

The part of the brain that regulates hunger is known as the hypothalamus. It interprets the signals of hunger-regulating hormones, telling you when to eat.



### Leptin

Leptin (also known as the satiety hormone) is responsible for inhibiting your hunger signals and regulating long-term energy balance. This hormone is released from fat cells and sends signals to the hypothalamus in your brain to inhibit hunger. The amount of Leptin released is directly connected to the amount of body fat in your body. So, the higher the levels of body fat, the higher the levels of Leptin and consequently hunger signals are inhibited. Low body fat has the opposite effect - less Leptin so more hunger signals.

During weight loss, Leptin levels decrease as body fat decreases, resulting in increases in appetite and food cravings. This can make weight loss harder due to the increased hunger signals.

When someone's body fat levels are too high, Leptin levels are too high. This can result in a lack of sensitivity to the hormone so hunger signals are not inhibited, resulting in an increase in appetite. This is known as Leptin resistance.

### Ghrelin

Ghrelin (the hunger hormone) is secreted by your stomach when it's empty. It stimulates your appetite. This is basically your body's alarm system to let you know when it's time to refuel. Some people are more inclined than others to react when ghrelin kicks in. It all depends on our body's overall hormonal balance.

### Insulin

When your blood sugar is high, insulin is released to regulate it. Insulin's job is to guide glucose to where it's needed or, to store it as fat. Insulin also suppresses your hunger - so if your insulin levels are low, you may experience an increased appetite.

### Neuropeptide Y

Neuropeptide Y (NPY) tells your body to rest, recover and refuel after exercise. Studies show that stimulating our NPY pathway with exercise, fasting, and energy loss, causes increased appetite and food intake. It also suppresses energy expenditure - so you burn fewer calories.

Hormones are very sensitive, and have a strong influence on how we feel. The careful balance of hormones is easily disrupted by modern lifestyle factors, such as:

- Stress
- Lack of sleep
- Processed food
- Chemicals

## Why do we get hungry?

Advertising can also affect our hunger. Believe it or not, adverts can actually convince us that we're hungry, even though we physically don't need to eat. Recognising the psychological effect of advertising can help us to resist the urge to act on those cravings.

Although these hormonal processes continuously occur in our bodies, we don't have to be slaves to them. We can choose how we respond to those feelings by taking steps to regulate our hunger hormones.

## Here are a few ways to reset your appetite control:

- Exercise regularly. Exercise is known to re-sensitise the body to leptin and insulin, making those hormones more effective at blunting hunger. Intense exercise is also known to suppress hunger in the short term.
- Try to manage your stress levels effectively.
- Get more sleep. Lack of sleep reduces leptin and increases ghrelin, making overeating much more likely.
- Eat a diet rich in whole foods. Protein and fibre are particularly effective for feeling full, while processed foods short circuit hunger regulation pathways.
- Be conscious when you eat. Eating while distracted, such as watching TV, can make it easier to ignore your bodies cues to stop eating.



# Chapter 2

## Foods that keep you fuller for longer

## Food that fills you longer

Sometimes, even after a meal, we still feel hungry, and go rummaging through the pantry for a snack. This might be because we're eating the wrong foods.

### The Satiety Index (SI)

The satiety of foods is the feeling of how filling a food is a few minutes after eating. A study on the satiety index of various common foods, showed a positive correlation between protein, fibre, and water contents of the test foods and their SI scores. So you should consider those three factors when eyeing out your menu options throughout the day.

### Meat

Protein is one of the most effective ways to stay full for longer and, as you know, meat is a great source of protein. In a Swedish study at Karolinska Hospital, researchers had people eat either a high carb or high protein lunch. Results showed that the protein group were less hungry in the evening. For weight loss (and general health) it's a good idea to stick to lean meats like skinless chicken breasts or fish.

### Salmon

Diets high in omega-3 reduce appetite and increase satiety. Salmon is packed full of these healthy fats, as well as protein - killing two birds with one stone so to speak.

### Oats

Oats are a breakfast staple - and for good reason. Not only do they increase satiety, they suppress appetite and reduce energy intake. If you have a busy day ahead and need energy from the minute you step out of the door, give satisfying and healthy oats a try.

### Seaweed

Did someone say sushi? Seaweed is both healthy and filling (although maybe not everyone's cup of tea). And, to back it up with science, when the flavour of umami (seaweed) was added to diets, it enhanced appetite and increased satiety (according to an article published in the American Journal of Clinical Nutrition).



Salmon is high in protein and unsaturated fats (omega-3 fatty acids).



## Food that fills you longer

Here are some of the best options to keep you full



### Chia Seeds

These little seeds may not look like much, but they're actually pretty powerful. They're high in fibre, protein, and omega-3, all of which are essential to satiety. They can also be added to pretty much anything. When you're selecting your next muffin or smoothie, try get your hands on one with chia seeds.

### Fruits and vegetables

There's a reason why fruits and veggies are a staple to every diet, whether it's to maintain health or lose weight. That's because while they're low in calories, they supply loads of dietary fibre. Sufficient fibre intake is linked to lower incidence of cardiovascular disease and obesity.

**Some of the top fruits and veggies for satiety are:**

#### Raspberries

Surprisingly, raspberries are at the top of the list of high fibre fruits. A cup will contain about 8 grams of dietary fibre - more than enough to get you close to your daily goals. And, the benefits don't stop there. Raspberries also contain health promoting nutrients including vitamins C and B-complex, manganese, copper, magnesium and iron.

#### Potatoes

Potatoes are one of the most widely consumed vegetables on the planet. They offer a high glycaemic index (GI) rank high on the satiety index. But, remember to boil or roast them and avoid deep frying foods in fats, which will sabotage your weightloss efforts.

#### Avocados

Much like salmon, avocados also contain omega-3 fatty acids (a great substitute if you're vegan or vegetarian). Avocado consumption is associated with improved overall diet quality, nutrient intake, and reduced risk of metabolic syndrome.

# Chapter 3

## Should you eat breakfast to lose weight?

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You've probably heard the saying, "breakfast is the most important meal of the day" when it comes to weight loss. Let's find out if it's true.

### **Our curiosity started with a study, which found:**

For those of you who got lost in the maelstrom of scientific jargon, eating breakfast will stabilise your energy throughout the day. It's important when considering balancing meals throughout the day, but not eating breakfast won't adversely affect your weight loss.

Research into the origins of breakfast, linked the commercial interests of cereal manufacturers to the initiation of the belief that breakfast was the most important meal. In fact, breakfast wasn't really a big deal until the late 1800's.

Cereal only skyrocketed in popularity in the 1940's, when vitamins were discovered. Fortified cereal was touted to contain every vitamin and mineral under the sun. Advertising targeted busy women's maternal guilt, providing fortified cereal as an easy solution for children to get a healthy meal in before school.

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**"Daily breakfast is causally linked to higher physical activity thermogenesis in lean adults, with greater overall dietary energy intake but no change in resting metabolism. Cardiovascular health indexes were unaffected by either of the treatments, but breakfast maintained more stable afternoon and evening glycemia than did fasting."**

### **We know better now**

Instead, you should get these from natural sources like fruits and vegetables, or as a multivitamin.

### **So, what does this mean for breakfast?**

Eating in the morning raises your energy levels and restores blood glucose levels after sleep. If you want to remain full, then definitely eat breakfast. However, it's important to understand that every single meal you eat throughout the day is important.

We're not saying that breakfast has no value at all, simply that skipping it isn't a big deal if you're not hungry. At the end of the day, we need to focus on the quality of our food if we want to lose weight or gain muscle.



# Chapter 4

## Meal replacement shakes - are they healthy?

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For those of you who haven't tried one, a meal replacement shake is pretty self-explanatory - it's a drink that replaces actual food.

Meal replacement shakes are popular not only for weight loss, but for busy people on the go. They are, however, predominantly used by people who are struggling to lose weight or control diabetes. Instead of the hassle of making a meal or weighing up calories, you get all the nutrients, vitamins and minerals you need in one foul slurp.

### But are these meal replacement shakes actually healthy?

#### The Pros

A meal replacement shake offers a controlled amount of calories in liquid form. That's music to the ears of anyone struggling to keep track of caloric intake. It'll boost your energy, provide you with the nutrients you need and stop you pigging-out on a burger and fries. Having your meal in a shake-form removes the sensory experience from eating, and as a result helps you avoid overeating.

A 2003 study, published in the International Journal of Obesity, found that during a 40-week trial, people who received a partial meal replacement diet lost significantly more weight than those on a standard reduced-calorie diet.

So, it seems like meal replacement shakes can be quite effective when it comes to short-term weight loss and diet management.

It's not all good news - so don't rush out and commit to a liquid diet!

#### The Cons

A diet consisting only of meal replacement shakes isn't a long-term solution. A lifetime of shakes would be completely monotonous. Replacing meals with shakes, albeit healthy ones, should be viewed only as a way to get started.

You should be eating proper nutritious meals every day. Ready-made meal replacement shakes don't have the correct amount of macronutrients, vitamins and minerals in them. In fact, they have about the same nutritional value as processed foods. This can lead to malnutrition. It's certainly not an effective way to maintain a balanced diet.

### So, should you consider meal replacement shakes?

Only if you really have to. Our advice is to make them part of your daily routine - not your entire source of nourishment. For example, you can replace your breakfast with a shake and then eat normally throughout the day. It's convenient, can help you build good a habit and still allows you to get nutrients from other food sources.



# Chapter 5

## Cheat meals - are they ever a good idea?

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Cheat meals were created to help people stick to their diets. How? Well, it's much easier to maintain six days of healthy eating when you know that, on day seven, you can munch on that chocolate bar you've been craving all week. A cheat meal gives you something to look forward to.



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Six months of healthy eating, with no break, seems a lot more daunting.

Although there's no scientific evidence to suggest cheat meals boost our metabolism, it definitely boosts our morale. So yes, cheat meals are definitely a good idea - as long as they're done right.

Personal trainers recommend having your cheat meal during the post-workout period, while your body is in "fat burning mode". During this time, your body is most likely to use the meal as energy rather than storing it as fat.

### The problems with cheat meals creep in when you're:

- Cheating too often
- Eating too much during a cheat meal
- Indulging in cheat days, instead of meals
- Alcohol (need we say more?)

None of these are conducive to sticking to your diet. They'll set you back in terms of your weight loss goal. In order to lose weight you need to burn more calories than you consume. It's a very simple formula (albeit difficult to put into practice).

### The 90/10 plan: hands down the best way to cheat

Many dietitians, personal trainers and nutritionists prescribe the 90/10 plan. The 90/10 plan suggests eating clean for 90% of the week. During this time, we need to eat the right quantities of macro and micronutrients at every meal. If we succeed at, we have leeway to cheat for the remaining 10% - without sabotaging our weight loss.

This method is ideal for people who are sedentary for most of the day. Already the amount of calories you consume will be less than that of an active person because you aren't using as much energy. When the weekend comes along, you can go for a run or hit the gym, allowing you to sneak in your cheat meal. Just remember, the faster you want to achieve your weight loss goal, the fewer cheat meals you can afford.

# Chapter 6

## How to stop weekend bingeing



## How to stop weekend bingeing

Weekends are probably the hardest time to stick to our healthy eating plan - with friends and family providing temptation all around us. During the week, it is much easier to maintain a healthier lifestyle because we follow a routine. Many of us spend Monday to Friday on autopilot – gym, work, eat, sleep, rinse and repeat.

The weekend is a different beast altogether.

### Don't be too restrictive during the week

Many people who want to lose weight quickly go on a restrictive diet. This may help you drop ten pounds in the short-term, but you may end up gaining it back just as quickly. It's virtually impossible to keep that up for your entire life.

You'll find yourself desperately craving those foods you cut out, which lead to bingeing. Bingeing doesn't only sabotage your weight loss efforts - it leaves you feeling guilty, which is terrible for self-esteem.

Think of your weight loss as a marathon, not a sprint if you want long term success.

Try the 90/10 method we mentioned in chapter five it's okay to have that slice of pizza every now and then.

### Cut out cheat days

Cheat days were introduced so that people on restrictive diets could eat whatever they want without a guilty conscience. Have a cheat meal (within reason) by all means - but cheat days often become cheat weekends, which get in the way of your weight loss goals.

### Make meals that you like

Don't fall into the trap of thinking healthy eating has to be boring. By making your health and your diet entertaining, you'll add another reason to stay on track. There are thousands of delicious, healthy recipes available online - even some to satisfy a sweet tooth without bingeing on sugar.

### Stay active on weekends

Transforming our bodies often means transforming our entire lifestyle - not just our diet. Most of us are trapped behind a desk all week, and weekends are the only time to slot in some exercise.

Get out there and try something that you've never tried before like hiking or a yoga class. You may find that, apart from a new hobby, you actually make some new friends too.

### Avoid the "big night out"

Cutting down on your alcohol consumption and late nights on the weekend helps you get the most out of your training and healthy eating. Alcohol is detrimental to your weight loss efforts (and your health in general). Not only is it filled with calories, but one drink often leads to many drinks, and your inhibition flies out the window. This often leads to late night snacking and the dreaded hangover the next day.

A hangover means two things: sitting in bed, or on the couch recovering and further poor food choices.



# Chapter 7

## Tips to cut down on sugar

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Sugar is arguably the most addictive substance on the planet. Most of us began consuming it before we could even walk. Many of us can't resist sweets, chocolates and desserts, even though we're well aware that they're bad for our health. To make life even more difficult, sugar is present in almost everything we eat and drink.

Soda is one of the main culprits for our high sugar intake. Because of this, sugar consumption is often measured as equivalent to cans of soda (e.g. that dessert was equivalent to X cans of soda).

### The dangers of sugar

New FDA (US Food and Drug Association) guidelines suggest limiting sugar to no more than ten percent of all calories. Sugar consumption is directly linked to diseases such as:

- Obesity
- Type II diabetes
- Heart disease
- Increased risk of heart attacks and strokes
- High blood pressure
- Inflammation
- Fatty liver disease

“Excess sugar’s impact on obesity and diabetes is well documented, but one area that may surprise many men is how their taste for sugar can have a serious impact on their heart health,” says Dr. Frank Hu, professor of nutrition at the Harvard T.H. Chan School of Public Health.”

### Why is sugar so bad for you?

Excessive amounts of sugar overload your liver. “Your liver metabolizes sugar the same way as alcohol, and converts dietary carbohydrates to fat,” says Dr. Hu.

### Here's a few tips to help you manage your daily sugar intake:

Replace fizzy and sweetened drinks with water, tea or coffee (without added sugar). Basically, avoid drinking sugar altogether. It's much easier to gulp down a whole lot of sugar without realising it, than being mindful of how many pieces of cake you've had.

Focus on eating whole foods (not processed foods) that have a balance of nutrients and fibre to accompany any sugar content.

If you want to indulge, try to fill up on the good stuff first – veggies, protein, and healthy fats. This will help to reduce your appetite and ultimately the portion size of your treat.

Read the labels on your food. Get to know the various other ways that sugar is referred to – they're all just sugar with a fancy name. These include:

- Corn Syrup
- Dextrin
- Dextrose
- Fructose
- Glucose
- HFCS (High-fructose Corn Syrup)
- Molasses
- Saccharose
- Sucrose



# Chapter 8

## The best exercises for weight loss

## Easy at home exercises

No long-term weight loss journey (or healthy lifestyle) is complete without exercise. Increasing your lean muscle mass helps to burn calories, even when you're not actually working out. Most of us live fairly sedentary lifestyles, due to desk-bound jobs, and struggle to get to the gym during the week. This makes losing weight even more difficult.

The following list of exercises can easily be performed at home in the comfort of your living room, without any fancy equipment.



Here's a few of the best at home exercises for weight loss:

### Squats

When done correctly, squats target your core and lower body. They're great for toning your glutes, hamstrings, quads and thighs.

- Start with your feet hip-width apart, and your arms at your sides.
- Place your weight on your heels, lower your body and raise your arms at a 90 degree angle in front of you.
- Keep your back straight and make sure your thighs are parallel to the floor. Your knees should be in line with your toes.
- Slowly rise back to a standing position.
- Complete three sets of 15 to 20 squats each.
- If you want to give your arms a workout, get yourself a small set of dumbbells to hold while you're doing your squats.

### Planks

Planks target your abs, back and core muscles. When done correctly, they improve both your posture and balance.

- Lie on the floor.
- Push your body into modified push-up position, with your hands, forearms and elbows touching the ground. Your elbows should be directly under your shoulders, creating a 90 degree angle.
- Your feet should be together, but not touching, with only your toes touching the floor.
- Your body should form a straight line from the top of your head all the way down to your heels.
- Hold this position for as long as you can. Keep your abdominal and lower back muscles tight and try not to let your hips drop towards the floor. You may initially only be able to hold this position for a few seconds. As you get stronger, try to hold your plank for 30 seconds.
- Once 30 seconds feels easy, try lifting a foot off the floor slowly, keeping your back straight.
- Alternate between feet. Aim for eight to ten reps per foot.

## What should you do after training?

### Burpees

Burpees simultaneously target your core, chest, and legs. They're not only great for weight loss, but also building lean muscle.

- Stand with your feet shoulder-width apart and your arms at your sides. Bend your knees, push your hips backward and lower yourself into a squat.
- Place your hands directly on the floor in front of you, shifting your weight on to them.
- Jump your feet back gently into the plank position.
- Jump your feet forward, landing on the inside of your hands.
- Reach for the ceiling, jumping explosively into the air.
- Land with your feet shoulder-width apart and your arms back at your sides.
- Lower back into a squat and begin the next rep.
- Complete three sets of eight to ten burpees each.



### Lunges

Lunges work multiple muscle groups and are very effective for weight loss. They target similar muscles to squats.

- Stand with your feet hip-width apart. Put your hands on your hips and take a controlled step forward with your left leg.
- Keep your back straight and lower your body until both of your legs form 90-degree angles.
- Count to three slowly, then return to standing.
- Step forward with your right leg and repeat the process.
- Complete three sets of ten reps each.  
If you want to give your arms a workout, hold a set of dumbbells instead of placing your hands on your hips.
- As you get fitter, you can kick it up a notch by doing explosive lunges. This high-intensity exercise will really get your heart pumping:

- Step into you lunge position, with legs at 90-degree angles.
- Jump upwards and switch legs in mid air, landing with your opposite foot forward. Repeat for a minute, then break for 30 seconds.
- Complete three sets.



# Chapter 9

## The relationship between stress and weight

## The relationship between stress and weight

Stress is an unfortunate side-effect of modern life. No one is immune to it.

High stress levels can lead to sleep disorders, anxiety and even depression - so it's important to try and keep your stress levels under control.

### Some of us are genetically predisposed to suffer from more stress than others

The COMT (catechol-O-methyltransferase) gene is responsible for encoding the enzyme which breaks down dopamine, a neurotransmitter known as your brain's pleasure and reward centre.

### There are two common variants of the COMT gene

Everyone carries two copies of the COMT gene (either A, G, or a mix).

The A-allele (or "worrier") breaks down dopamine slowly. These people have higher levels of dopamine in their prefrontal cortex (which manages logic, planning, memory and so on). Worriers are more susceptible to stress and are more prone to suffer from anxiety.

The G-allele (or "warrior") breaks down dopamine quickly. These people function well in high pressure situations - resulting in greater resilience.

### But don't be disheartened if you're a worrier with the A-allele...

While warriors may outperform you under pressure, but worriers are better equipped than warriors to perform well in calm, non-stressful conditions. It's also important to note that both nature and nurture affect how you cope with stress.

### Stress and unhealthy weight gain (or loss) are closely related

All of us, at some point or another, have reached for that doughnut or bag of crisps after a long, stressful day. Chronic stress is known to alter our pattern of food intake and dietary preferences. However, weight gain caused by stress isn't only due to a change in eating habits.

### Stress hormones

When we're stressed we release a cocktail of hormones (including adrenaline and cortisol) which trigger a response.

Adrenaline suppresses your appetite, sending blood away from your organs to your muscles - readying you for fight or flight. This is basically your body preparing itself to handle a threat. Once the "threat" has passed, cortisol (also known as the stress hormone) alerts your body to replenish energy. This causes us to crave snacks with a high sugar and fat content - which is why our knee-jerk reaction is to reach for that doughnut.

In comparison, worrying about work doesn't burn off nearly as much energy. Unfortunately, our bodies don't know the difference when it comes to dealing with a stressor. Our hormones still react the same way to stress as our ancestors' hormones did throughout history.

Chronic stress leads to higher levels of cortisol in our system, for a prolonged period of time. This can affect weight gain as it causes us to not only eat more than usual, but to eat the wrong foods. Cortisol also slows down our metabolism, reserving energy to deal with the perceived threat.

Eating foods which are high in refined carbs, saturated fats and sugars also affects our energy levels. It causes spikes in our blood sugar (brought on by glucose). However, these spikes don't last long. Soon we need to top up our energy levels again, causing us to crave more of these foods. It becomes a vicious cycle of calorie consumption, which ultimately leads to weight gain.



### Stress and sleep

Stress can cause us to lie awake at night worrying. When we're chronically stressed, we often reach for crutches like caffeine and alcohol. This further interrupts our sleep cycle, which in turn compounds our stress levels. Lack of sleep can disrupt the functioning of ghrelin and leptin which, as you know, are the hormones responsible for hunger. A study on obesity found that participants who got five hours of sleep per night lost substantially less weight than those who got eight hours of sleep, despite being on a fixed calorie diet.

### But how do we counteract stress?

- Get your full eight hours of sleep
- Avoid poor food choices when stressed
- Make use of meditation and mindfulness
- Drink less caffeine
- Make time to relax
- Speak to people close to you and let them help

You don't have to let stress control you. There are a variety of ways to combat stress, including meditation, breathing exercises, and a healthy diet and exercise. It's scientifically proven that a healthy diet and exercise reduces stress levels, and increases our ability to handle the curve balls life throws at us. Regular exercise releases endorphins, your body's natural pain killers - which also help to boost your mood. Something as simple as a 30-minute brisk walk or a bike ride can work wonders for your mental health!



This is a throwback to our ancestors. They regularly had to fight off wild animals (using up a lot of energy), and therefore required large stores of fat and glucose (sugar). These reserves were stored as visceral fat (belly fat).



# Chapter 10

Is your  
weight loss  
struggle  
genetic?

## Is your weight loss struggle genetic?

Nutrigenetics studies how very small differences in our genes alter the effect nutrient intake has on our bodies. Understanding these variations, allows us to give specific dietary and disease prevention advice based a person's unique genetic makeup.

Your genetic makeup controls what you can and can't digest, your tendency to gain weight, absorb nutrients and cope with toxins. Some people, for example, are lactose intolerant - which causes physical discomfort when lactose is ingested.

Depending on your personal genetic profile, you may receive different amounts of energy per calorie of refined carbohydrates and saturated fat. This is important to understand when preparing your eating plan, so you can manage your intake of these food groups for the best possible results.

### Saturated Fats

Saturated fats are non-essential. As a general rule, saturated fat should be limited to between 6 - 10% of your total calories. Animal fats (red meat, skin of poultry, full fat dairy products, eggs, cream, butter, ghee, lard), tropical oils (coconut and palm kernel oils), and hidden saturated fats (milk powders, tea and coffee creamers, ice-cream) should be kept to a minimum.

The FTO genotype plays a role in your body's sensitivity to saturated fat. It indicates that the level of fat intake and physical activity only modify the association with fat mass. In addition, FTO genotype may modify the association between physical activity and cardiovascular mortality. People with the FTO-risk allele have a higher mean BMI than the other genotypes - but only when they have a high-saturated fat intake.



Fats are extremely calorie dense, easily consumed and often over consumed. A single serving of fats is approximately 5g, which is equal to:

- 1 teaspoon (tip of index finger) of oil, butter, margarine or nut butters
- 1/4 avocado
- 30g (1 oz) of nuts
- 1 tablespoon (tip of thumb) of seeds



### Carbohydrates

Carbohydrates (fibrous, starchy and sugary foods) provide us with energy. They provide four calories of energy per gram. Despite what you may have heard, carbs are a necessary part of your diet for optimal health.

**You get three main types of carbohydrates: Simple, Complex and Fibre.**

#### Simple carbohydrates

Simple carbohydrates are digested quickly and cause a rapid rise in blood sugar - this is good if you're about to do strenuous exercise, but not great if you're sitting at the office or watching TV.

Examples of simple carbs include:

- Fruit juice
- Sugar and sweets
- Breakfast cereals
- White bread

#### Complex carbohydrates

Complex carbohydrates take longer to break down in the body and cause a slower increase in blood sugar. They're almost always a better choice than simple carbs.

Examples of complex carbs include:

- Sweet potatoes
- Kidney beans
- Whole wheat bread
- Grains (like brown rice, quinoa and buckwheat)

#### Fibre

Fibre plays a role in gut function, cholesterol control, and also helps make us feel fuller for longer.

Great sources of fibre include:

- Fresh fruit (e.g. apples, berries and bananas)
- Fresh veggies (e.g. broccoli, spinach and carrots)
- Beans

Different genetic variants process carbohydrates differently, with some being more sensitive to carbs than others. If your carb sensitivity is very high, you'd have an increased risk of obesity and developing type II diabetes.

There are a wide variety of genes associated with carbohydrate sensitivity. The TCF7L2 gene and ACE I/D polymorphism are both linked to an increased insulin demand and possible gluten sensitivity. The ADRB2 haplotype is linked to body fat percentage - specifically abdominal fat distribution, VO2Max, insulin sensitivity, and glucose tolerance.

**Your genes can make losing weight more difficult—but not impossible.**

Researchers are still working on understanding the relationship between nutrition and genetics. However, much is currently known about how factors like hormones and the microbiome affect weight loss. By living a lifestyle which triggers your body to work at its best, you can make up for a less-than-ideal genotype.

All of the genes that we test for are indicators of your body's inherent response. Knowing this response allows you to make better lifestyle choices for your body. The right dietary changes for your body can assist you on your weight loss journey, and ultimately lead to better health.

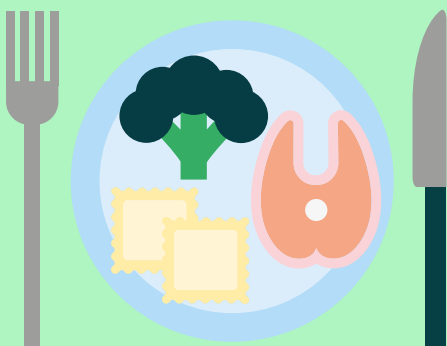


# Conclusion

**DNAfit takes your health and fitness journey from generic to genetic.**

Remove the guesswork from dieting and exercise. Whether you want to know how to lose weight or build muscle, or simply want to eat right for your body type, your DNA holds the answers. We'll help you unlock your body's secrets, so you start seeing the results you've always dreamt of.

Take a look at how DNAfit can help transform your wellness journey, with a fitness and nutrition plan tailored to your unique DNA profile.



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