

# HOW TO LOSE WEIGHT

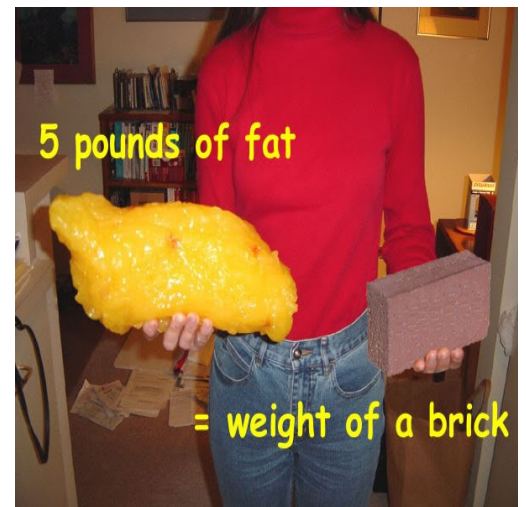
## Tips for losing weight:

- Avoid processed foods
  - Instead eat natural whole foods: e.g.: fruit, vegetables, beans, lentils, whole grains, lean proteins, and healthy fats (e.g. plant based, Mediterranean-style diet). Watch portion sizes in particular with fruit as it is high in sugar. Avoid refined sugars and refined grains (things made from flour e.g. bread and pasta)
- Let your body burn fat between meals:
  - Don't snack.
  - Be active throughout your day.
  - Build muscle tone.
- Consider a simple form of intermittent fasting:
  - Limit the hours of the day when you eat, and for best effect, make it earlier in the day (between 7 am to 3 pm, or even 10 am to 6 pm, but definitely not in the evening before bed). This is known as "Time restricted eating". (If you are on medication please discuss first with your doctor.)
- Avoid snacking or eating at night time: (if you are on medication please discuss first with your doctor)
- Increase fibre and vinegar. Avoid sweeteners.
- You need at least 7 to 8 hours of good quality sleep and need to manage and limit stress.

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We know that 70% of our tendency to put on weight is due to our genes. The other 30% are factors that are under our control. Obesity has only started increasing significantly since the 1970s so this can't just be down to changes in our genetic make-up.

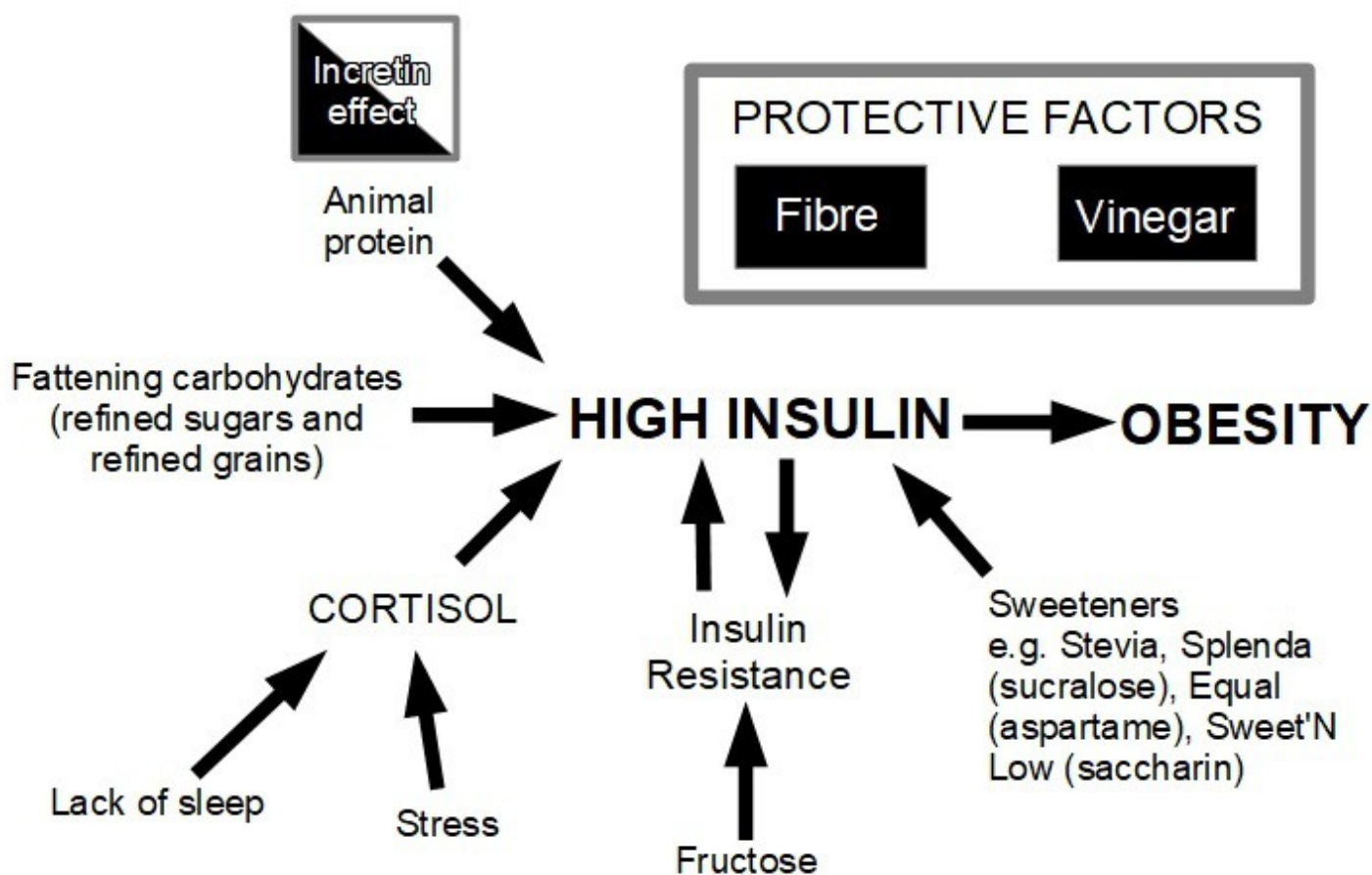
The human body is a finely tuned machine. Our body has a SET WEIGHT. It can naturally regulate its metabolism to keep our weight at this set healthy level. In a way you can think of the body as having a "fat thermostat". Just as you can control the temperature in your house with a thermostat, your body will try to keep its weight at the "ideal" level by increasing or decreasing its metabolism. If we eat too much initially our body will burn off the extra energy as body heat. Traditional diets which tell us to eat less do not work. When we try to eat less, initially we will lose weight but if this goes on a long time, the body, detecting it's receiving less food, will then decrease it's heat production (which is why dieters often complain they feel cold) and stimulate hunger to get us to eat more calories and put weight back on to return us to our SET WEIGHT. Once we do start putting on too much extra weight as fat we are in trouble. The extra fat that we start piling on, starts pumping out chemicals (hormones) which work on the area of the brain which controls our SET WEIGHT and has the effect of turning the "fat thermostat" up. With the "fat thermostat" tuned too high our bodies now try to keep our weight at this higher level and we stay fat.



For a long time we have been thinking of obesity as a problem of too many calories and not enough exercise. This is far too simplistic – there is much more to it. As way of an example in an experiment, people were given two different meal plans to follow which were carefully designed so that they contained THE SAME NUMBER OF CALORIES. Both meal plans had an energy intake of twice the recommended number of calories per day so both groups put on weight. What was interesting is that one group put on 5 TIMES THE AMOUNT OF WEIGHT THAN THE OTHER GROUP, so clearly it wasn't just down to the number of calories they were eating, which was the same in both groups, but WHAT THEY WERE EATING (in this example a meal plan high in refined carbohydrates and low in fat caused the greatest weight gains).

A word on exercise. Many people think to lose weight you have to spend hours each week at the gym. Multiple studies have shown that average weight loss was only 30% of predicted by exercise. After a 45 minute walk we will have burnt around 100 calories – which is around 5% of our recommend calorie intake. So in this example 95% of the calories we take in that day are spent on fuelling all the processes in our body we need to stay alive (to keep our brain functioning, heart pumping, generating body heat etc). Building muscle tone will increase your metabolism and help you burn extra calories- but it's not the main factor to help you lose weight- so don't expect it to undo what you are doing at the dinner table!

All food contains calories, but certain types of food are more likely to make us put on weight. Deep down we know that 150 calories of broccoli isn't going to have the same effects on our body as the 150 calories in a can of coca-cola soda. So if it isn't down to the calories, why is it certain foods/drinks are more likely to make us fat? Instead of thinking of obesity as a problem of too many calories we need to think of obesity as a hormone imbalance. Certain foods are more likely to make us fat as they have a greater effect on certain hormones in the body.



**FIGURE 1 – Hormone obesity theory**

As we said earlier the body is a finely tuned machine. The body keeps all the different processes in our body under tight control by releasing chemicals (hormones) into our blood which either speed up or slow down these reactions. In terms of weight, the major player here is a hormone called INSULIN (see Figure 1 above).

You have probably heard of insulin in relation to people who have diabetes. Sugars(carbohydrates) in our diet are mostly broken down to glucose which travels around in our blood to different parts of our body to be used as a fuel. Insulin is the chemical messenger that controls sugar levels in the body. When insulin is released it allows the tissues in our body to take up glucose and use it as a fuel. If sugars circulating in our blood are too high, the insulin will cause the excess sugar to be converted to fat which can be stored. At a later stage if the sugar levels drops too low the fat will be converted back to be used as fuel. You could think of it in a similar

way to having a current account and a saving account with your bank. In the short term you use your current account to quickly pay for things (glucose in the body), while fat is a bit like having a savings account – it takes longer to access the funds but it's good to have as a reserve just in case you need it later.

Although it isn't safe to do- some body builders use medication like anabolic steroids to bulk up and put on weight. The steroids they take are chemically similar to a hormone called cortisol. This is the body's “stress hormone” and is released when the body is in “flight/fright” mode – e.g. when we had to run away from something that was chasing and trying to eat us. It caused sugars to be released from body stores, and from what you can see in the diagram in Figure 1, it in turn increases insulin production. When we don't sleep well, cortisol levels more than double. Similarly when we are anxious/stressed the increased cortisol released means that insulin levels are kept high. The high insulin levels cause the body to lay down extra fat. In addition it also triggers hunger and we start to crave high energy foods high in sugars.

There is one more key piece to the puzzle which underlies obesity. **THE BODY REACTS TO CHANGES** in something rather than something continuous. Consider a baby who is able to sleep in a noisy airport terminal, yet wakes up in a quiet bedroom if someone steps on a creaky floorboard. The body quickly adapts to a constant stimulus and instead reacts to a change in something.

This is what underlies the problem in people who have Type 2 diabetes. People who have this condition are usually overweight. Over long periods the high sugars in their blood cause more insulin to be produced in an effort to store the extra sugar as fat. The problem is that the chronically high levels of insulin results in the tissues becoming less sensitive to the effects of insulin, as the body adapts to the continuously high stimulus (just as in the case of the baby who is able to sleep in the crowded airport terminal). More and more insulin is required to have the same effect, which leads to a vicious cycle. The person is now in big trouble – they are in a state of **INSULIN RESISTANCE** where higher and higher levels of insulin are required to have the same level of effect. They are now on the road to developing Type 2 diabetes. As the high insulin levels have the effect of increasing the body's **SET WEIGHT**, the “fat thermostat” is turned up too high and the person starts putting on more and more weight.

The key to losing weight is therefore to break this cycle of **INSULIN RESISTANCE**. This is why **INTERMITTENT FASTING**, which we are going to talk about shortly, is **SO EFFECTIVE** at helping people to lose weight. Just as in the example with the baby in the quiet room if we can get the insulin levels low enough **BETWEEN MEALS** we will “wake up” the tissues in our body and make them sensitive again to the effects of insulin. This is also why it is not a good idea to snack between meals. By snacking between meals we are keeping our levels of insulin high for longer periods which makes insulin resistance worse. That's why grandma was right when she told us snacking would make us fat – not only are we consuming more calories in the snack, but we are encouraging insulin resistance to develop.

The gut itself produces hormones (called incretins – including GLP-1 and GIP). **ALL** foods stimulate the release of these gut hormones and is the reason why even proteins cause insulin levels to rise, independent of sugars. As a result it's sensible to “moderate” your protein intake. In the past dieters on e.g. the Atkins diet would eat large amount of animal proteins. While protein does make you feel fuller for longer (think how full you feel after eating a beef steak), it also has the effect of raising your insulin levels. So in reality the “Atkins dieters” by eating large amounts of animal proteins, weren't doing themselves any favours!

A final word on the use of sweeteners. They need to be avoided! We have long known that diet sodas don't help people to lose weight. Simply swilling a zero calorie sweet liquid in your mouth and then spitting it out will raise your insulin levels. In fact Stevia (a sweetener which many people have turned to as an alternative to artificial sweeteners) raises insulin levels higher than table sugar! Our bodies evolved to associate something sweet to mean that we are eating something full of sugar. As a result these zero calories sweeteners trick the body to release insulin, when really it doesn't need to. Unfortunately that's why sweeteners don't help us to lose weight!

## **PRACTICAL TIPS on losing weight**

### **• Managing stress:**

Lack of sleep and stress is a major pathway for weight gain. While removing yourself from stressful situations is important, this is not always possible with work and family matters. There are however time tested methods that help us cope.

You can't relieve stress by doing nothing (e.g. sitting in front of a television), stress relief is an active process.

Regular exercise is a great way of relieving stress, as it also causes happy hormones (endorphins) to be released and improves mood. Social contact, such as with friends or family or being part of community or group, is a great stress reliever. Human touch is often helpful, so a massage is often beneficial.

Mindfulness meditation reduces stress by helping us to focus on the present. It reminds us of pleasant experiences from our past, when we have been able to overcome struggle and achieve personal success.

There are many forms of meditation (tai chi and yoga are forms of movement meditation with long traditions). Meditation often only takes twenty to thirty minutes and can be done any time. Start your day waking up in the morning, having a cold glass of water and beginning your meditation.

Three basic parts are involved in mindfulness meditation: body breath and thoughts:

- **Body:**
  - Find a quiet location where you won't be disturbed for the next twenty minutes. Sit down on the ground on a cushion and cross your legs, or sit in a chair making sure your feet comfortably touch the ground. Rest your hands on your thighs, palms faced down. Gaze down at the floor 6 feet in front of you and focus on the tip of your nose and slowly close your eyes. Feel your chest becoming open and your back becoming stronger.
- **Breath:**
  - Once you begin to relax focus on your breath. Breath in through your nose for the count of six and exhale through your mouth for the count of six. Pay attention to how your breath feels entering and leaving your body.
- **Thoughts:**
  - As you sit, your mind may start to race with distracting thoughts. If you start to have negative thoughts think back to a time when you experience similar challenges and remember how it felt to overcome these challenges. If your mind starts to wander focus again on your breathing.

### **• Improving Sleep:**

Medication such as sleeping tablets, interfere with the normal sleep cycle.

To improve your sleep:

- Sleep in complete darkness
- Sleep in loose fitting clothes (also wear socks in bed, cold feet often wakes us in the night)
- Keep regular sleeping hours (wake up at the same time each day – even at weekends)
- Try to get 7 to 9 hours sleep each night
- Keep your bedroom around 18 degrees celsius.
- Do not keep a TV in the bedroom. Limit screen time with devices in the two hours before bed (also switch on a blue light filter on the device as the blue light released from screens interferes with our sleep)

Next, we turn our attention to food. Long term weight loss is a two step process. Two major factors maintain insulin at a high level. First is the foods that we eat – which is what we usually change when we go on a diet. What is often forgotten is the second factor which is of insulin resistance – which is a problem of meal timing i.e. when we eat. In insulin resistance the knee-jerk reaction of the body is to increase insulin levels, which in turn, creates even more resistance. To break this cycle we need to have very low insulin levels between meals which means looking at when we eat.

## • WHEN TO EAT:

Your body is well adapted to dealing with the absence of food. It swaps from burning sugar (glucose) in the short term to burning fat (long term). In our culture we are told you should eat three meals a day – this isn't true.

Fasting has long been a part of human tradition e.g. for religious reasons as a “cleansing” as being helpful to body and spirit. If we overeat at Christmas we know we have to cut back afterwards to make up for our excesses.

We are going to look at a modified form of fasting called INTERMITTENT FASTING. Lets be very clear on what we mean by Intermittent fasting. On days you are “fasting” you are still going to be eating, just less than you would normally eat in a day. We will explain this in the next section.

You will need to discuss this with your doctor before starting. You must not do intermittent fasting if you are under 18, breastfeeding, pregnant or have an eating disorder. If you are on certain medications these may need to be changed/doses altered. In particular if you are a Type 2 diabetic you will need to be seen at your diabetes clinic to discuss with a specialist whether your regime can be modified to address your insulin resistance.

Myths around fasting:

- Myth : Fasting will make you lose muscle/burn protein (instead the body knows to burn fat not muscle to release energy)
- Myth : You will feel tired and lethargic (people often describe increased vigour- they feel more sharp and alert).
- Myth : Fasting puts you in starvation mode/lowers basal metabolism (instead IN THE SHORT TERM the body increases metabolism by releasing adrenaline so early humans would be able to catch food)
- Myth : Fasting will overwhelm you with hunger (hunger comes in waves and quickly passes)
- Myth : Fasting causes overeating when you resume feeding (instead appetite tends to decrease with increased duration of fasting as you feel fuller more quickly after eating)
- Myth : Fasting deprives the body of nutrients and causes low sugar: (long term studies in which patients are monitored by doctors show no such imbalance – the body is a finely tuned machine that makes sure sugar levels are kept steady)

If the above myths were true early humans would have never have survived as a species. During long winters there were many days where no food was available. After the first episode you would be severely weakened. After several repeated episodes, you would be so weak you would be unable to hunt or gather food. Instead of blunting our intelligence, studies have shown that when we fast we actually grow new brain cells – the hungry hunter has to be smarter to catch it's prey. Humans would never have survived to live today if the myths above were true!

### How to do Intermittent Fasting

There are a number of ways of doing intermittent fasting such as “Time Restricted Eating” and the 5:2 diet. In the 5:2 diet on 5 days of the week you eat normally – having 2000 calories a day if you are a woman or 2500 calories if you are a man. On the other two non-consecutive days (e.g. Monday and a Wednesday, or Tuesday and a Thursday etc.) you will reduce your intake to 800 calories a day (so in other words you will be having around 25% of your normal calorie intake on the “fast” days).

More and more variations of diets based on intermittent fasting are now appearing. Dr. Michael Mosley who trained as a medical doctor and does health programs for the BBC has worked with dieticians to produce meal plans which are extensively based on Mediterranean-style recipes, and are designed to make sure you are having enough nutrients on your fast days (e.g. at least 50-60g daily of protein). More information here: <http://bit.ly/MichaelMosleyBooks>

For a video which explains the science behind intermittent fasting: <https://vimeo.com/170735109> [the demonstration of the 5:2 diet starts just after 37 minutes, with the earlier part looking at the science behind calorie restriction]. What is particularly interesting with the video is how the body switches to a repair mode, e.g. repairing DNA and growing new brain cells when we intermittently fast.



#### Intermittent fasting tips:

- Drink water: Starting each morning with a full eight ounce glass of water. Aim to drink at least two litres of water a day.
- Stay busy: It'll keep your mind off food. It often helps to choose a busy day at work for a fast day
- Drink coffee: Coffee is a mild appetite suppressant. Green tea, black tea and bone broth may also help. Avoid sweeteners.
- Ride the wave: Hunger comes in waves; it is not continuous. When it hits, slowly drink a glass of water or a hot cup of coffee. Often by the time you've finished, your hunger will have passed.
- Don't tell everybody you are fasting: Most people will try to discourage you, as they do not understand the benefits.
- Give yourself one month: It takes time for your body to get used to fasting. The first few times you fast may be difficult, so be prepared. Don't be discouraged. It will get easier.
- Follow a nutritious diet on non-fast days: Intermittent fasting is not an excuse to eat whatever you like. During non-fast days, stick to a nutritious diet low in sugars and refined carbohydrates.
- Don't binge: After fasting eat normally – pretend you haven't fasted. You will fill up quickly and if you eat too fast you will feel overfull which can be uncomfortable after you break the fast.
- FIT FASTING INTO YOUR OWN LIFE: Do not limit yourself socially because you're fasting. Arrange your fasting schedule so that it fits in with your lifestyle. There will be times when it's impossible to fast: vacation, weddings etc. Do not try to force fasting into these celebrations – these occasions are times to relax and enjoy. Afterwards, resume your fasting schedule or simply increase your fasting to compensate.

#### What to expect:

Fasting is often associated with early, rapid weight loss. Initially weight loss averages 1.9 pounds per day as the lower insulin levels cause excess water and salt to be lost from the kidneys– some people comment they notice feeling less bloated. Things will then slow down, so you should expect on average to lose one or two pounds a week on a typically 5:2 diet. Before you say that 2 pounds doesn't sound like very much, have a look at the picture on the first page of this handout again!

## • WHAT TO EAT

In terms of what to eat THERE ARE FIVE basic points:

### 1) Avoid refined sugars

If you are trying to lose weight your first major step must be to severely restrict refined sugars. Sugar is particularly fattening because it increases insulin both immediately and over the long term.

Carbohydrates should be enjoyed in their natural, whole, unprocessed form e.g. eggplant, kale, spinach, carrots, broccoli, peas, tomatoes, asparagus, bell peppers, cauliflower, avocados, beets, cucumbers. Be very cautious with the portion sizes of rice and potatoes (people trying to lose weight would be best to limit these – a portion of rice is 5-6 tablespoons of cooked rice, while a portion size of potato is 4 new (egg-sized) potatoes or one medium baked potato).

Beans are fibre rich carbohydrate staple of many traditional diets. They are often high in proteins as well e.g. edamame beans.

Natural foods will have limited amount of sugar, but with artificial/processed foods- manufacturers can add unlimited amounts to make their food taste better. Processed foods are particularly bad as the manufacturers can use HIGH FRUCTOSE CORN SYRUP to artificially sweeten the food as often it is a cheap alternative to natural sugars. It has been government policy over the years to subsidize farmers to grow corn in the USA which is used to produce high fructose corn syrup. Most sugars are broken down in the body to glucose – the one exception to this is fructose which has a slightly different chemical structure to glucose. Unlike glucose, fructose does not circulate in the blood so the liver alone has to cope with all of the fructose that is eaten. Excess fructose is changed into fat in the liver. If the process continues you can develop “fatty liver”. Some people with “fatty liver” can develop chronic inflammation in the liver which can lead to scarring in the liver and liver failure. In addition the fat in the liver leads directly to INSULIN RESISTANCE IN THE LIVER. As fructose is often a major component in processed foods and sodas, it is particularly bad at causing weight gain (see Figure 1).

### *Read the labels*

Manufacturers try and conceal the amount of added sugars by labelling sugars as sucrose, glucose, fructose, maltose, dextrose, molasses, hydrolyzed starch, honey, invert sugar, cane sugar, glucose-fructose, high fructose corn syrup, brown sugar corn sweetener, rice/corn/cane/maple/malt/golden/palm syrup and agave nectar. Sauces are particularly bad – often they contain large amount of sugar e.g. ketchup, spaghetti sauce, salad dressings.

### *Desserts*

Desserts are mostly sugar with added flavours e.g. cakes, puddings, cookies, pies, mousses, ice cream, sorbets, candy and candy bars.

Instead try:

- Bowl of seasonal berries or cherries with whipped cream.
- Small plate of nuts and cheeses
- Dark chocolate (more than 70% cacao) can be enjoyed in moderation (cacao does not naturally contain sugar). Avoid milk chocolate which is very high in sugar.

This is not to say that refined sugar cannot be enjoyed as an occasional indulgence e.g. for special occasions. Dessert is not to be taken every day. Don't replace sugar with artificial sweeteners, as they also raise insulin as much as sugar and are equally prone to causing obesity.

One last note on desserts. Imagine being at an all you can eat buffet. If you feel full the thought of another two pork chops can make you feel sick. Now imagine instead, a sweet dessert and suddenly eating more seems much more do-able. The reason for this is our body has ways of telling us when we are full which works for fats and proteins in our diet, but sugars override this pathway and suddenly we can manage that high sugar dessert.

### *Don't snack*

Are you hungry or just bored? Eating regularly only serves to keep our insulin levels high which leads to INSULIN RESISTANCE and weight gain. Snacks from the grocery store often have large amount of refined sugar and grains – e.g. biscuits, cereal bars, canned fruits.

### *Make breakfast optional*

If you aren't hungry in the morning don't eat anything at all. In the morning rush we often reach for conveniently pre-packaged, heavily processed and heavily sugared foods. Don't eat sugared breakfast cereals. If you must, eat cereal containing less than 4 grams of sugar per serving. Beware pastries. Commercial yoghurt can contain almost 8 teaspoons of sugar (31 grams). Whole oats are a good choice, they containing significant amounts of fibre – avoid instant oatmeals which often have a large amount of added sugar. Eggs are a good choice for breakfast (egg whites are high in protein and the yolk is full of vitamins and minerals) – enjoy them scrambled, over easy, sunny side up, boiled, poached etc.

### *Beverages: No sugar added*

Sugar sweetened drinks are one of the leading sources of added sugars – sodas, fruit juice, alcohol. Best to drink is plain/sparkling water with slices of lemon, orange or cucumber added.

Coffee is known to reduce appetite. Store beans in airtight container away from excessive moisture, heat and light. Flavour is lost quickly after grinding so investing in reliable grinder is worthwhile. Grind beans immediately before brewing. On hot days, brew a pot of regular coffee and cool it in the refrigerator overnight. You can use cinnamon, coconut oil, vanilla extract, almond extract and cream to flavour your coffee without changing its healthy nature. Avoid adding sugar or other sweeteners.

Tea is the most popular drink in the world after water. Black tea is the most common – harvested leaves are fully fermented giving tea its characteristic black colour. Black tea tends to be higher in caffeine than other varieties. Oolong tea is semi-fermented (undergoing shorter period of fermentation). Green tea is non-fermented – instead the leaves are steamed which stops the fermentation process. Green tea is naturally much lower in caffeine than coffee, making this drink ideal for those who are sensitive to caffeine's stimulant effects. Flavour can be added with the addition of lemon peel, orange peel, cinnamon, cardamom, vanilla pods, mint and ginger.

If you have issues with sleep limit coffee and tea intake past mid afternoon.

Herbal teas are infusions of herbs and spices – they are not true teas as they don't contain tea leaves.

Popular varieties include mint, chamomile, ginger, lavender, lemon balm, hibiscus and rose-hip tea.

Addition of cinnamon or other spices can enhance the flavour.

Bone broths, which are high in minerals, gelatin and proteins, are made from simmering (2hr-3hrs) animal bones with the addition of vegetables, herbs and spices (add salt, pepper ginger for flavouring) are particularly good to have on “fasting days”. Adding 1 tablespoon of vinegar helps to leach some of the stored minerals from the bone. Then strain and de-fat. Animal bones are often available at ethnic grocery stores. They can be made in large batches and frozen. Most commercially prepared broths have nothing in common with the home-made variety as they rely on artificial flavours and MSG to provide taste.

## 2) Reduce refined grains (i.e. foods made from refined flour e.g. bread, pasta (noodles etc.)

Modern processing strips all the fibre from flour. Whole wheat and whole grains are an improvement over white flour however whole-grain flour is still highly processed in modern flour mills – the ultra-fine particles produced by modern milling techniques cause very rapid absorption. Traditional stone-mill grinding is preferable. Limit bakery food – breads, bagels, muffins, rolls if you want to lose weight.

Quinoa technically a seed but often used as a grain is very high in fibre, protein and vitamins.

Chia seeds are high in fibre, vitamins, minerals, omega 3, proteins and antioxidants. They are usually soaked in fluid, as they absorb ten times their weight in water, forming an edible gel.

See section on fibre below for ways of making sure you are having enough fibre in your diet.



### 3) Moderate your protein intake

In contrast to refined grains, protein cannot and should not be eliminated from your diet. You must eat at least 50-60grams of protein each day. Moderate the amount of protein in your diet to fall within 20%-30% of your total calories. Avoid meal replacement shakes/powders which are really just highly processed “fake foods” that don't produce lasting weight loss and are designed to keep you hooked. In terms of animal proteins it may be worth considering that farming has changed the nature of the meat we eat. For example farmed cattle, rather than eating grasses, are now fed grains and farmed fish, are fed pellets with grains which bear no resemblance to their natural diet. Studies have shown that eating two portions of oily fish such as salmon, mackerel etc. are good for your heart. Modern fish farming means that these fish now contain fewer of the healthy omega 3 fatty-acids that are good for our hearts. If you can, try and eat wild fish rather than farmed. Fish can however contain pollutants such as mercury so the government advises to limit intake to no more than four portions a week. Plant based diets provide all of the essential proteins that we need in our diet. In terms of vitamins vegans/vegetarians should supplement their diet with Vitamin B12.

### 4) Increase natural fats

Food is made of three major parts carbohydrates, proteins and fats (called macronutrients). Of these three, dietary fat is the least likely to stimulate insulin and make us fat. Natural unprocessed fats include olive oil, butter, coconut oil, beef tallow and leaf lard. Artificial trans fats should be avoided and are already banned/restricted in a number of countries including Canada, USA, Denmark, Austria, Hungary, and Switzerland etc. Artificial trans fats (or trans fatty acids) are created in an industrial process that adds hydrogen to liquid vegetable oils (often labelled as partially hydrogenated oils). Highly processed vegetable oils, high in inflammatory omega 6 fatty acids may have detrimental health effects. You should consider that modern margarine is made mainly of refined vegetable oil and water, which then has to be artificially dyed to make it yellow.

People are often concerned about having fat in their diet. However it is very important to note that no study has ever shown a suggestion of any relation between dietary saturated fat and subsequent development of coronary heart disease.

Mediterranean diets, which are known to be good for your heart, are high in olive oil. Use “virgin” olive oil extracted using mechanical means only and try and avoid refined (often labelled as pure olive oils) which often use chemicals and high heat to extract the oil and neutralize bad tastes allowing producers to use second-rate olives. Heat and light cause oxidation so olive oil must be stored in a cool dark spot. Dark-green glass containers reduce incoming light to help preserve the oil. Light olive oils undergo a fine filtration to remove most of the flavour, aroma and colour. This process make it more suitable for baking.

Nuts are prominent in the Mediterranean diet and are now recognized for their health benefits as being high in natural fats, fibre and low in carbohydrates.

Full fat dairy can be enjoyed without concerns.

Avocados are very healthy and high in vitamins, potassium and high in fibre -and unusually for fruits, very low in carbohydrates.

## 5) Increase fibre and vinegar

Fibre is protective as it decreases the amount we eat and also works by slowing down food absorption in the stomach and small intestine. It is recommended to have at least 25g of fibre daily. Remember that a glass of orange juice is the equivalent of eating 4 or 5 oranges, which in reality we know we would never eat. By squeezing the orange into a juice we are removing the fibre which would otherwise have made us feel full.

Natural whole foods contain plenty of fibre which are often removed during processing. Fruits (whole fruit not juice!), berries, vegetables, whole grains, flax seeds, chia seeds, beans, popcorn, nuts, oatmeal and pumpkin seeds provide good amounts of fibre.

Vinegar is protective, reducing the glycaemia index of rice by 20%-40%.

## **SUMMARY**

Have a look at the first page again and the summary tips of losing weight at the top. Use this to decide which parts are a particular problem for you – e.g. lack of sleep / too much stress / WHAT you are eating e.g. too many artificially processed foods (made of refined grains and refined sugars) / WHEN you are eating (avoiding snacks, eating at night, and looking into “Time restricted eating”).

## **Appendix:**

This handout is a summary of a book by Dr. Jason Fung called “The Obesity Code”. Dr. Fung is a kidney specialist who runs a weight management clinic in Canada. He has a particular interest in the subject as diabetes is the main cause of kidney failure. He decided to summarize all of the studies done on nutrition in the last few decades to work out what does and doesn't work for weight loss. It is well worth buying the book as it gives further explanations on the topics covered in this handout. He has also written a book called “The Diabetes Code” that I would recommend if you or a family member have Type 2 Diabetes.

For the latest version of this handout visit: <http://bit.ly/dietHandout>  
Version 1.6 [13/2/2023]