



# REMISSION POSSIBLE



### CHANGING THE CONVERSATION ABOUT TYPE 2 DIABETES

TREATING DIABETES WITH FOOD



### **DO YOU HAVE TYPE 2 DIABETES?** THIS GUIDE CAN HELP TREAT IT WITH FOOD

Have you recently been given a type 2 diabetes diagnosis by your doctor? Or, perhaps you've had the condition for a while but it's steadily getting worse? Maybe you're worried about future complications or the need to increase your medications? You want alternatives.

This ebook can help. It invites people like you, living with type 2 diabetes, to think differently about their diabetes. It describes how to improve your blood glucose levels (a.k.a blood sugar) and even put your condition into remission. How? By changing how and what you eat.



In just 12 weeks, JJ put his type 2 diabetes into remission, lost 55 pounds and feels great. He cut out alcohol and sugar and ate a low carbohydrate diet with plenty of protein and fresh vegetables. Says JJ: "Once I got it dialed in, it went really well... It's not just about the weight loss ... it's the way you feel. I have a new outlook on life."

#### You can do it

Changing what you eat may sound hard at first, but a growing number of people are doing just that! They are following a few simple guidelines and eating delicious, nourishing, whole foods. They are putting their type 2 diabetes into remission, lowering their blood glucose, feeling great, and often losing weight, too.

#### Work with your doctor

This ebook is a self-care tool, but it does not replace medical care. Rather, you will work with your healthcare provider to monitor your condition and adjust any medications.

#### Medications must be reduced or monitored

If you take any prescription drugs for your type 2 diabetes, you must speak to your healthcare provider before trying any of the approaches described in this guide. Your blood glucose levels may drop rapidly leaving you at risk of blood glucose lows (hypoglycemia) if your medications are not adjusted. This is especially important if you are taking insulin, drugs called SGLT-2 inhibitors (with names that end in 'flozin' such as Canagliflozin) or sulfonylureas (with names ending in "ide"). You may also need to have your doctor or pharmacist monitor or adjust any medications for high blood pressure. Please also talk to your health provider first if you have other health conditions, such as problems with your heart or your kidneys.

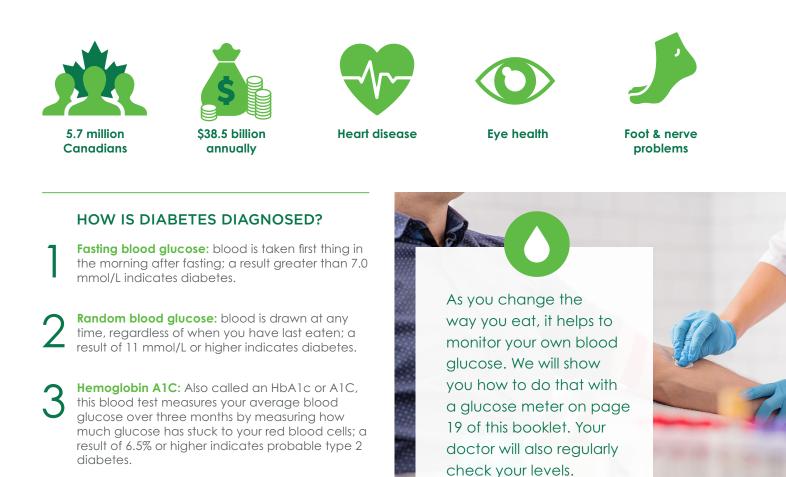


#### What is type 2 diabetes?

Type 2 diabetes is a medical condition where the body cannot make enough insulin or does not use the insulin it makes very well. Insulin is a hormone that helps control the amount of glucose in your blood. Risks for type 2 diabetes include genetics and family history, metabolic syndrome, excess abdominal body fat, obesity, and a diet with high amounts of sugar or foods that rapidly digest to sugar. By the time you are diagnosed with type 2 diabetes, the underlying process has likely been going on silently for years.

#### Why does it matter?

Excess glucose in the blood can damage delicate blood vessels and nerves. When insulin is ineffective, it also prevents your muscles and tissues from taking up enough glucose for energy. Complications from diabetes includes damage to the eyes, feet, heart, kidneys and other organs. Annually, type 2 diabetes impacts an estimated 5.7 million Canadians and its rates have been steadily increasing.



Oral glucose tolerance test: two hours after drinking a very sweet drink, your blood is tested; a result of 11 mmol/L or higher indicates diabetes.



### WHAT IS TYPE 2 DIABETES REMISSION?

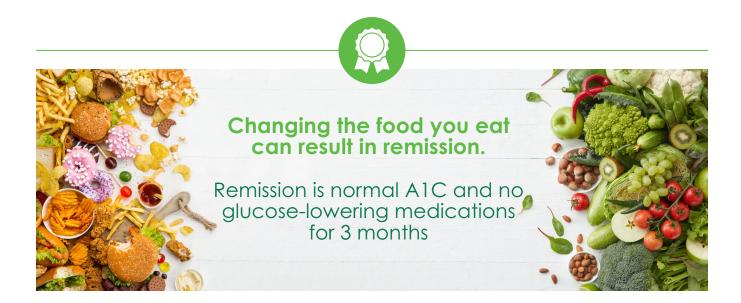
In the past, type 2 diabetes was thought to be a disease that did not get better, only steadily worse overtime. People were given medications and taught about lifestyle changes that might slow the progression of the disease. Remission was not something talked about or hoped for. Today, things are different. A growing body of research shows remission is possible when people change how and what they eat.

#### How is remission defined?

When it comes to type 2 diabetes, Diabetes Canada and other diabetes organizations have determined remission means that your A1C and blood glucose levels are in normal ranges without needing to take glucose-lowering medication for three months or more.

#### Any improvement is great!

Even if you don't achieve full remission as it is currently defined, any lowering of your blood sugar is likely to benefit your health and reduce your risk of future health complications. Sometimes people can lower their A1C to 6.5% while still needing to take the drug metformin. While not technically remission, if this happens to you it is still a great success.

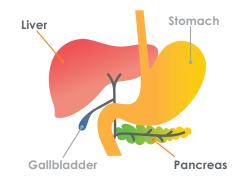




### HOW IS REMISSION POSSIBLE?

Type 2 diabetes remission is possible when you help your pancreas and liver function more effectively and you reduce your body's need to handle a lot of glucose coming in through the food you consume.

Research suggests type 2 diabetes arises when too much body fat is in the abdomen, especially in the liver and pancreas.



**The pancreas** has two main jobs. It produces enzymes to aid digestion and hormones to control the amount of glucose in your bloodstream.

**The liver** has many essential functions, two of which are helping to regulate blood sugar and converting the food you eat into usable compounds, nutrients, and vitamins.

When you have excess fat in these two organs, they don't work well, increasing the risk of diabetes.

#### What leads to remission?

**Research evidence supports three interlinked body changes that help put type 2 diabetes into remission:** reducing the amount of body fat in your abdomen, losing excess weight, and reducing the consumption of sugar and foods that digest to sugar.

#### Let's explore all three

#### **Reducing abdominal fat:**

If it is often thought that obesity itself is a risk factor for diabetes, but what is more risky is where that fat is located. Fat in the abdomen, also called visceral fat, creates the highest risk. People with normal weight and BMI's under 25 still get diabetes if they have excess fat in their liver, pancreas and around their internal organs. This condition is called "TOFI" - thin on the outside and fat on the inside - and may be because they have exceeded their personal fat threshold. Losing this abdominal fat -- no matter what your weight and size -can reverse type 2 diabetes.

#### Losing excess weight:

When you lose abdominal fat, you will almost always lose excess weight. Research shows that losing this weight and keeping it off from around your waist can put your diabetes into remission for the long term.

### Consuming fewer sugary foods:

When people change what they eat, their blood glucose can improve even before a pound of fat is lost. This is because when you eat less sugar, or foods that digest to sugar, less sugar ends up circulating in your blood.



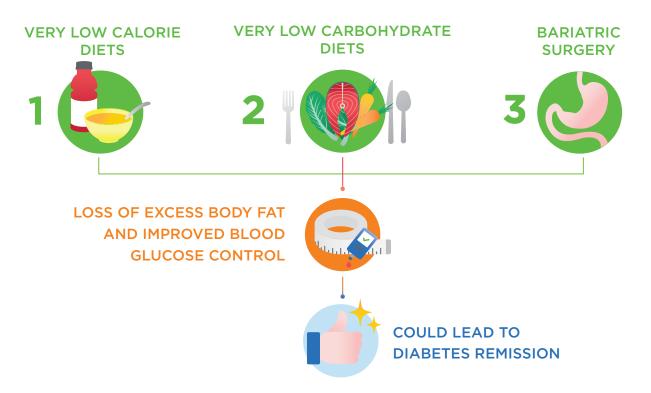
### HOW CAN YOU ACHIEVE TYPE 2 DIABETES REMISSION?

Currently, research evidence is showing that type 2 diabetes may be put into remission by three different ways.

- 1. A very low calorie diet
- 2. A low carbohydrate or ketogenic diet
- 3. Bariatric surgery

**Why do they work?** Each method helps you lose excess body fat, especially from around your abdomen, and helps improve your blood glucose levels.

We will briefly describe each of these ways, but in this booklet we will put the focus on 1 and 2 — what you eat. That's because you can do this at home with support from your healthcare provider.



#### Remember any improvement is a win for you!

The journey to remission is different for everyone. Even if you do not achieve full remission, any improvement you can make to your blood glucose levels and your excess body fat will benefit your current and future health. And it will help reduce your risk of possible complications from type 2 diabetes.

#### Let's dig deeper into the three proven ways ...



### **1. VERY LOW CALORIE DIET**

A number of research studies show eating a very low calorie diet is one way to quickly lose weight and improve blood glucose levels. This is an intense, short-term treatment done for about 12 to 16 weeks under the care of a health professional.



#### Phase 1: Shakes and soups first

You start by consuming a maximum of 850 calories a day, often from commercially prepared shakes and soups that have been specially created to have a specific amount of protein, calories, vitamins, and nutrients.



#### Phase 2: Switch to whole foods

After 12 weeks, or when the desired body fat is lost, you switch to a healthy whole foods diet with meals like salads and vegetables with lean proteins, such as salmon and chicken.



#### Phase 3: Custom diet

For maintenance, you will then transition to a personalized diet that supports a stable weight and food that you can eat for the rest of your life.

#### **Recurrence plan**

If you start to regain weight or your diabetes returns, you will go back to the shakes and soups of phase 1 until you are stabilized again.

#### **Exercise and stress reduction**

The two largest studies of very low calorie diets included other lifestyle changes such as exercise and stress management. Be sure to try to include this in your plan. See pages 17 and 18 for more tips.

#### Next steps?

Talk to your doctor if you want help doing a very low calorie diet. We also go into more details about very low calorie diets later on in this booklet.



### 2. LOW CARBOHYDRATE & KETO DIET

The general principle of this way of eating is to reduce the carbohydrates you eat because "carbs" break down into sugar (glucose) when digested. The fewer carbs you eat, the less sugar that will end up in your blood. These diets are also called "low carb, healthy fat" (LCHF) diets. If you eat a very low carb diet, less than 50 grams of carbs, it is called a ketogenic, or keto, diet. Both low carb and keto diets not only control blood glucose, they help you lose weight and they can help you feel less hungry between meals, helping you eat less. Counting calories is usually not required on a low carb or keto diet.

## Cut out sugar & foods that digest to sugar

The typical Western diet usually has about 350 grams of carbs a day. A low carb diet means eating less than 130 grams a day. That means you cut out sugar, sweetened drinks (including fruit juice), processed foods, and carbs that digest to sugar such as cookies, cakes, crackers, cereal, bread, pasta, rice, potatoes and any refined processed foods with flour and sugar.

#### Fill up on protein and vegetables

What do you eat instead? You will fill up on plenty of healthy proteins such as chicken, fish, seafood, meat, eggs, Greek yogurt, and tofu. You can have as much above ground and leafy green vegetables as you desire. You will also eat nuts, seeds, and some cheese, if you want. You can also have lowsugar fruits such a raspberries, strawberries, blueberries, and blackberries.

#### Feel free to add some healthy fat

On a low carb diet you can add some butter or cheese to your vegetables, have an olive oil salad dressing or you can even top your berries with unsweetened whipping cream. Just add enough fat to help you enjoy your meals and let you feel full. If you overdo the fat, it may slow or stall your progress.



DID YOU KNOW THAT EATING TWO SLICES OF WHITE BREAD EQUALS EATING 7 SUGAR CUBES?

#### Make it keto with even fewer carbs

The keto diet is just a super-charged low carb diet, with less than 30 to 50 grams of carbs eaten a day. When you eat so few carbs, your body switches over from burning glucose for energy to burning your stored body fat for energy. This burned fat breaks down into compounds called ketones. That is why the diet is called a "ketogenic" or keto diet.





#### Getting used to burning fat for fuel

Our bodies are like hybrid cars that can change fuels from glucose to ketones. In ancient times, this was life-saving and allowed our ancestors to burn their stored body fat when food was scarce. These days most of us run on glucose 100% of the time, but our bodies are still able to tap into this way to burn our fat – if we cut carbs.

It can take a few days to get used to using ketones for fuel (also called being in ketosis.) You may have a headache, dry mouth, or feel tired and achy. These symptoms are called "keto flu" but not everyone experiences them. And they typically can be avoided with a little pre-planning.



Drinking a cup of consume, bone broth, or water with a dash of salt can help. After a few days, your body will adjust to being in ketosis and most people report higher energy levels, less hunger, and greater mental alertness when in ketosis.



A keto diet is a more intense approach to reducing your blood glucose and your body fat. Most people on a keto diet do not need to count calories. **However, they will need to work with their doctor to monitor their diabetes medications because dosages may need to be changed very fast.** 



**Talk to your doctor** if you want to try a low carb or keto diet. Also, see pages 14 and 15 for more ideas of what to eat and not to eat.

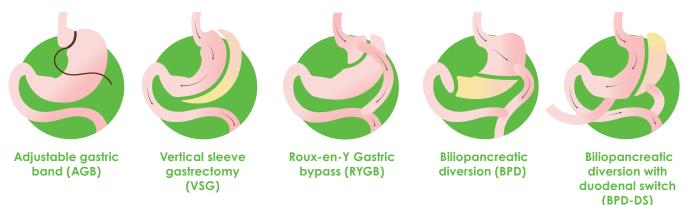


### **3. BARIATRIC SURGERY** WEIGHT LOSS SURGERY

Bariatric surgery, often called 'weight loss surgery' is a medical procedure performed on the stomach or intestines to reduce their size. This greatly reduces the amount of food that can be eaten at one time, thus helping a person lose weight. **This surgery is generally reserved for people with large amounts of weight to lose.** 

While this booklet focuses on using food and eating strategies to achieve type 2 diabetes remission, we mention bariatric surgery because it is the third scientifically proven approach to achieving short and long-term diabetes remission. After bariatric surgery, blood glucose levels can fall rapidly and type 2 diabetes can go into remission before any weight is lost. However, only adjustable gastric band surgery can be reversed. The other types of surgery are permanent.

#### TYPES OF BARIATRIC SURGERY



#### After surgery, you will need to change how and when you eat

Immediately after surgery, you will only be able to have fluids for a few weeks. Then you will transition to very small amounts of soft, moist food, such as scrambled eggs, cottage or ricotta cheese, mashed cooked vegetables or canned salmon or tuna. Because your stomach is so small, you may have to eat small portions of food four or five times a day.

Eventually, you will transition to a healthy, whole foods diet that is low in sugar and processed foods. Your doctor may even suggest that after bariatric surgery that you adopt a low carbohydrate diet, as described in the previous page.

**Do note**, it is possible over time to eventually regain weight lost through bariatric surgery, if you return to your previous eating habits. As well, for people who have food or sugar addiction, there is a high rate of transference to alcohol addiction after bariatric surgery.

#### Talk to your doctor if you think bariatric surgery is the best option for you.



### Are these approaches safe for everyone?

Work with your doctor to determine if any of these approaches are right for you.

As noted, if you are taking any medications, especially the types that lower blood glucose or blood pressure, you may need to have the dose adjusted or stopped as your health improves. If you don't adjust the dose, you could end up taking too much medication. This can cause your blood glucose or your blood pressure to go too low, which can be dangerous.

The need to take less medication can happen quickly – often in the first days and weeks of changing the way you eat.

For a few people, eating more fat and fewer carbohydrates can cause an increase in blood cholesterol. Most often this is temporary but should be monitored by your doctor. Some people may need to lower their intake of animal (saturated) fats such as butter, lard, cheese, full fat dairy products, fatty and processed meats, and choose unsaturated fats such as olive oil, avocado oil, and nuts instead. These dietary approaches are not safe for people with digestive or fat metabolism disorders such as chronic pancreatitis. These dietary approaches are not safe for people with digestive or fat metabolism disorders such as chronic pancreatitis.

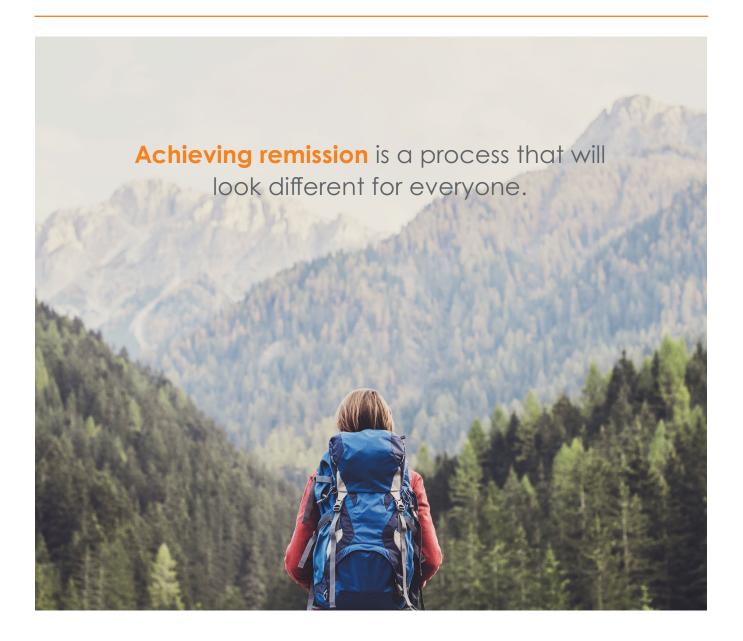
Very low calorie and low carb/keto diets are not recommended for women who are pregnant or breastfeeding



#### What does the type 2 diabetes remission process look like?

Achieving remission is a process that will look different for everyone. As described, you will need to work with your healthcare provider, such as your family doctor. Whenever possible, it is also helpful to include others in your care team such as your community pharmacist, diabetes specialist, health coach, or dietitian.

Support from family and friends is also important as you set out to make changes to last a lifetime. For example, if you are no longer eating sweets, candies, and baked goods, it helps if others don't eat them in front of you. Take a look at what might be hard for you to change, and ask for support from family and friends to help you make that change.







TO BE SUCCESSFUL, THE REMISSION *PROCESS* USUALLY INCLUDES THESE 5 ACTIONS:



**Choose a dietary approach:** Consider your preferences, lifestyle and weight loss goals when choosing the approach that is the best fit for you.



Make a decision: Lifestyle change is a process that takes time and support. Once you're ready to make a change, the hard part is committing to a wellthought-out plan and then following through.



Lose belly fat: Reducing body fat, especially around your abdomen, and keeping it off appears to be a key factor for long term remission of type 2 diabetes.



Ask for support: Having support from a healthcare professional is important for safety reasons, and supportive family and friends improve your chances of making behavior changes that last.



**Prepare for challenges:** Struggles will arise. Expect them and prepare for them with strategies and a plan if or when you regain weight or see your blood sugar rise.



### WHAT TO EAT FOR DIABETES REMISSION

In these next few pages we will go into more detail about what to eat and not to eat on both the very low calorie and the low carb or ketogenic diet. In general, both diets contain similar foods, but the low calorie diet will include commercial shakes and soups you get from your health provider, smaller portions, and strict calorie-counting. The low carb diet will include more healthy fat and protein, and will not require counting calories. It may be helpful, however, to track your carb intake.

#### WHAT TO EAT



#### WHAT TO AVOID







#### Very low calorie diet

- Shakes and soups prescribed by your doctor that are balanced for protein, vitamins and nutrients
- Lean protein food, meat, fish, poultry, eggs
- Vegetables, leafy greens, fruit, nuts, plain yogurt

#### Low carb or keto diet

- Protein such as meat, poultry, fish, seafood, tofu, eggs
- Non-starchy, above ground and leafy green vegetables
- Tart fruit and berries
- Nuts, seeds, avocado, olive oil, butter, coconut oil
- Cheese, full fat dairy, plain Greek yogurt, sour cream

- All added sugar
- Sweetened drinks (including juice)
- Pasta, white rice, bread, potatoes
- Cookies, biscuits, desserts, cakes, pastries
- Breakfast cereals
- Crackers and chips
- Alcohol
- Energy & granola bars
- Dried fruit
- Sweetened yogurt, ice cream, candy, chocolate bars
- Processed meat
- Fast food & processed foods

- All added sugar
- Sweetened drinks (including juice)
- Pasta, white rice, bread, potatoes
- Cookies, biscuits, desserts, cakes, pastries
- Breakfast cereals
- Crackers and chips
- Alcohol
- Energy & granola bars
- Dried fruit
- Sweetened yogurt, ice cream, candy, chocolate bars
- Fast food\* & processed foods. (\*hamburgers and breakfast egg muffins can be eaten without buns or fries.)



### HOW TO STOCK YOUR PANTRY, FRIDGE & FREEZER

#### First clean out your kitchen

Before you get started on either the very low calorie diet or the low carb, keto diet, it helps to get your kitchen ready and to get rid of tempting treats in your house. What sort of food do you always crave? Is it chips, sweets, crackers, cookies or ice cream? Make sure you clean out your kitchen and get rid of the foods you need to avoid on your new diet. Some people can leave the dried pasta, rice, or baking supplies in the cupboard. But if you might want to whip up a batch or cookies or plate of pasta, get rid of those items, too.

#### Then restock with healthy items

Have plenty of healthy options on hand. Your doctor or pharmacist will provide you with the shakes and soups for the first 12 weeks of the very low calorie diet. Then when you return to whole foods, the items on the low carb shopping list can help you keep your weight off.

#### Low carb 1,2,3

#### There is a saying among those eating the low carb diet that it's as simple as 1, 2, 3.

#### 1. Pick a protein you like

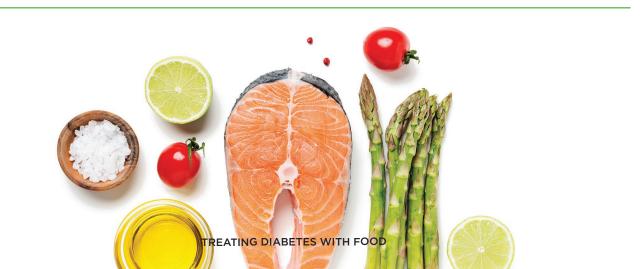
- beef, chicken, eggs, fish, seafood, tofu, tempeh, yogurt, cottage cheese - you decide.

#### 2. Add lots of above ground veggies or leafy greens

— as much as you like.

#### 3. Add enough fat for flavor

- olive oil, avocado, butter etc. just enough to make the food taste good.





### LOW CARB & KETO SHOPPING LIST

When you're grocery shopping stick to the outer rim of the store. Frozen berries and vegetables are great to have on hand and won't go bad. Pick up any of the following items:

#### **Proteins**

beef lamb pork poultry game fish seafood luncheon meats & sausages\* eggs tofu, tempeh, natto\*

#### **Natural fats**

avocado oil bacon chicken fat (schmaltz) coconut milk coconut oil full-fat salad dressings\* ghee lard and tallow mayonnaise nuts and nut butters nut oils of all types olive oil sesame oil **Vegetables** artichoke

asparagus avocado bok choy broccoli Brussels sprouts cabbage cauliflower celerv cucumber eggplant fennel garlic green beans hearts of palm jicama kholrabi leafy greens leeks mushrooms okra olives onion parsley peppers pickles\* pumpkin radishes rhubarb

rutabaga scallions shallots snow peas sprouts squash sugar snap peas tomatillos tomato turnip zucchini

Fruit

blueberries

raspberries

strawberries

blackberries

#### **Dairy products**

butter cheeses of all kinds cottage cheese cream cheese ghee cream cream (18%, whipping\*) mascarpone ricotta sour cream yogurt - plain, full-fat

\*no added sugar or starches

lemons limes

Low carb and keto diets have become very popular. You can find many cookbooks, websites, and magazines with a wide variety of low carb and keto recipes.





### HOW DO I STAY IN REMISSION?

You are in remission when your blood glucose has come down to a normal level and stayed there for three months without medication. Now you are in the maintenance phase of your type 2 diabetes remission plan. It is important to remember that remission is not the same as cure. Type 2 diabetes symptoms will come back if you go back to your old ways of eating. Research shows that keeping off the excess body fat appears to be the key to staying in remission. It is good to have a set of strategies to help you with this goal.



#### Have a recurrence plan

You can re-gain weight or see your blood glucose start to go up again at any time in the remission process. This is a very normal, human part of any change. A good idea is to have a plan ready to prevent or manage this when it happens. Going back to phase 1 of your remission plan and restarting a very low calorie or very low carbohydrate diet for a short period of time can help to get back on track.



#### Include physical activity

Exercise improves both physical and mental wellbeing as well as reduces the risk of cardiovascular disease and type 2 diabetes. So try to make regular exercise a part of your type 2 diabetes remission plan.

Some people find, however, that exercise can be very difficult at first. Don't worry, by changing your diet, and feeling better, you may find that you have more energy, desire, and ability to exercise.

Doing anything, even only 10 minutes a day to start, can help. If you can build up to three or four hours a week, wonderful! Just be active.

Popular ways to be active include walking, cycling, team sports, yoga, gardening, outdoor recreation, and play. These activities can be done at any level of skill and for enjoyment by everybody. Choose the activity that makes you feel good!



#### Make your eating plan work for you and your family

When it comes to the food we like to eat, and how we like to eat it, we are all different. However, both very low calorie diets and low carb/keto diets can be personalized to fit your life, whether you are a meat eater, vegetarian, vegan, or follow almost any other eating style. Kosher, halal, Mediterranean, South Asian, Chinese – you can adjust your diet to make it culturally appropriate for you.



#### Aim for lifelong healthy eating habits

Choose a dietary pattern that fits with your values, preferences, and goals, one that will be the easiest to stick with over the long term.

If you choose a low carb or keto diet to help achieve and maintain remission of your type 2 diabetes, it may help if you get support from a

dietitian, a health coach, or another health provider familiar with the diet. They can provide advice, strategies, and even recipes to make your new lifestyle enjoyable, affordable, and sustainable over time. As well, many informational books, cookbooks and reputable online resources now exist to help you eat a low carb diet. Ask your health provider for recommendations to helpful resources.



#### Choose unprocessed or 'whole foods'

Processed foods have been linked to poor health because they contain lots of fat, sugar, and salt. They may also contribute to overeating calories.

In one recent US study, 20 healthy subjects were admitted to a hospital ward for two weeks so that the researchers could control and monitor everything they ate. The participants were allowed to eat as much food

as they wanted to feel satisfied. The researchers randomized whether the food was ultraprocessed or less processed. The study showed that the participants ate 500 calories more each day when they ate ultra-processed foods, compared to eating as much as they wanted of a less-processed diet. This suggests that eating ultra-processed food can be a major factor in weight gain.

Unprocessed foods are foods close to their natural state. Fresh vegetables, fruits, pasteurized milk, meat, poultry, fish, beans, and eggs are considered unprocessed or minimally processed. These real, whole foods should be the major staples of your healthy diet.





#### Pay attention to sleep and stress

A good night's sleep helps give you more energy and helps your metabolism work better. It also helps your brain with tasks like memory, learning, and managing emotions. Poor sleep can raise your blood glucose levels, while fluctuating blood glucose levels may conversely contribute to poor sleep. One possible benefit of type 2 diabetes remission is better sleep.

#### Stress less

Stress can also make it a lot harder to get good control of your blood glucose. Stress increases hormone levels in your body that may directly increase glucose levels. When stressed, the body prepares itself for 'fight or flight' by making sure that enough glucose or energy is available. Feeling stressed or anxious can also interfere with a good night's sleep.

So, finding ways to reduce stress and improve sleep is part of the remission process and can help you succeed. Here are some actions to try:

- Limit all screen time before bed
- Try meditation
- Make time for yourself to relax
- Reduce your caffeine intake

- Spend relaxing time with family and friends
- Take breaks from work
- Exercise regularly with movement you enjoy



#### Seek healthcare and family support

Family, friends and healthcare professionals play a key role throughout the remission process, including getting started and keeping it going in the maintenance phase. Tell your family and friends you want support to eat in a new way — who knows, they may even join you.

Tell your doctor or another healthcare professional that you are interested in type 2 diabetes remission and work together to monitor medication safety. Your healthcare professional can also help you learn what other resources may be available to you, such as a referral to a dietitian or reputable remission programs. As more and more healthcare providers become familiar with type 2 diabetes remission and the proven dietary approaches described in this booklet, finding this support will become easier.



### WHAT SHOULD I MEASURE AND TRACK?

#### What you track is up to you and your doctor. Tip: track what motivates you.

Your healthcare provider will track important health measures like your HbA1c, your blood lipids, and your blood pressure. But you can track certain measures, too, if they help keep you motivated.

For example, some people like to track their weight and their waist measurement and find this motivating to do. However, if you find stepping on the scale or putting a tape measure around your waist is demotivating or stressful, don't do it.

**Some people find it helpful to track calories** if doing a very low calorie diet. Others, who are doing a low carb diet, track "their macros," which are the grams of carbs, protein, and fat they eat each day. You don't need to do this, but if you find it motivating go ahead. **Some people also keep a food journal**, noting what they eat for breakfast, lunch, and dinner. This may help if you are having trouble sticking to the diet or not getting good results. It can help you or your health provider fine tune your approach.



#### Tracking your blood glucose levels

While your health provider will order blood tests to check your blood sugar periodically, it is easy and helpful if you learn to check it yourself. Doing so can give you immediate feedback about how certain foods impact your blood sugar. It can keep you motivated and on track.

A home blood glucose meter (or glucometer) and glucose strips are available [they are sold separately] for purchase from your pharmacist. Here, in general, is how to take a reading:

- 1. Wash and dry your hands
- 2. Put glucose strip into the meter
- **3.** Prick a fingertip with the lancet provided
- 4. Put a drop of blood on the strip
- 5. Wait for the result.



#### Using a continuous glucose monitor

A device called a continuous glucose monitor, or CGM, is now available from your pharmacist without a prescription. While more expensive than a glucose meter, a CGM gives blood sugar readings 24/7 without pricking your finger. A special disc is worn on the back of your arm that links to an app on your smart phone. Wearing a CGM can give you insight into how your blood sugar is impacted by different foods, sleep, and stress.



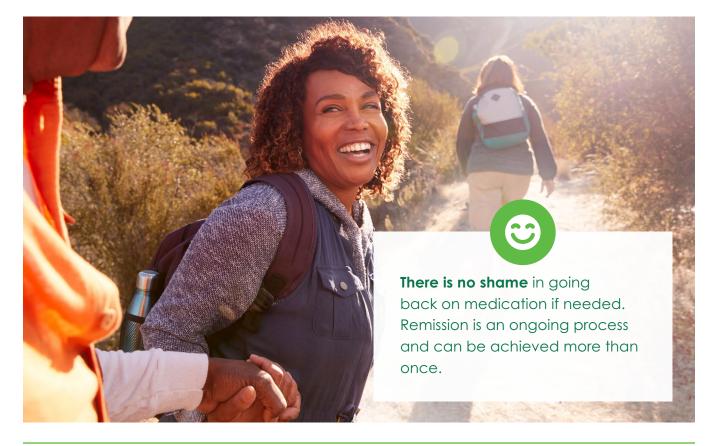
### HOW DO I STAY IN REMISSION?

You can expect to have setbacks and challenges while working on your type 2 diabetes remission. It's only natural. It's life! Work, stress, travel, family get-togethers and special events can all interfere with your eating plans or make it more challenging to keep on track. Difficult times such as deaths and other forms of acute grief can make comfort eating feel like the only way you will make it through.

# **If challenges happen**, as soon as possible, try to get back on track. Every day is a new day. You can restart as many times as you want.

From studies, we know that up to 50% of people can achieve remission! But that means that about 50% of people do not. For those who find it harder, remember that remission doesn't have to be the main goal, or the only goal. The health benefits of lowering blood glucose and losing excess body fat can still be very significant even if you don't go into full remission.

Plus, there is no shame in re-gaining weight or going back on medication if needed. Remission is an ongoing process and can be achieved more than once. It is important to keep trying. It also helps to think about the remission process as making a lifelong lifestyle change.







THESE THINGS MIGHT GET IN THE WAY OF SUCCEEDING

- Starting without a solid plan
- Failing to plan for challenges
- Leaving your healthcare provider & family out of the loop
- Going it alone





- Explore the reason YOU are interested in type 2 diabetes remission.
- 2 Start to have conversations about type 2 diabetes remission with your friends, family, and healthcare provider(s).
- **3** Assess your own readiness to start, and prepare yourself for a beneficial, lifelong journey.
- 4 Acknowledge that chances of type 2 diabetes remission are different for every person. Do not feel frustrated if remission is not for you. You will learn a lot about yourself in the process and, chances are, you will also improve your health.
- 5 Sticking to your preferred dietary approach and being physically active both contribute to achieving and maintaining type 2 diabetes remission.



### FAQ ABOUT REMISSION

#### Can anyone with type 2 diabetes go into remission?

This is still unclear, and more research is needed. We do know that remission is more likely if dietary changes are made as soon as possible after your type 2 diabetes is diagnosed, but some people have been able to achieve remission years after their type 2 diabetes was diagnosed.

# Factors that contribute to successful long-term remission include:

- Greater pancreatic function: Whether you do very low calorie diets, low carb diets, or bariatric surgery, the better your pancreas is working before the intervention, the better your chance of long-term remission.
- Shorter diabetes duration: If your diabetes diagnosis is relatively new which likely means your pancreas may still have adequate function you are also more likely to achieve remission.
- Significant and sustained weight loss: Studies show that if people lose in the range of 10 kg (22 pounds) and keep it off, they have higher rates of long-term remission. Smaller amounts of weight loss have lower rates of remission.

**Remember**, even if you don't achieve remission, or only have it for a short time, any change in diet or lifestyle that helps reduce your blood sugar or helps you achieve a lower body fat percentage will help improve your health and reduce your risk of future health complications.

# Does being in type 2 diabetes remission prevent future complications?

Being in remission also helps to improve other health markers such as blood pressure and inflammation. Having markers like blood glucose, blood pressure and cholesterol in a healthy range is usually linked to a lower risk of complications, such as serious problems with the eyes, feet, or heart. So, remission is likely to do the same.

Regular health checks are encouraged to see whether your blood glucose remains in a healthy range. Such monitoring enables concerns to be addressed promptly.

# Why is the term 'remission' used instead of 'cure'?

Cure means that the condition is completely gone. Type 2 diabetes remission is something you have to keep at in order to stay in remission. If your blood glucose levels increase, your type 2 diabetes will return. If this happens, it is important to examine what may have happened. If you went back to old eating habits, recommitting to low calorie or low carb approaches can get you back on track.



### NOTES PERSONAL WORK SHEET

Use this final page as a place to jot notes, record helpful health measures, and make a plan to overcome possible challenges.

#### 1. Record health measurements that you find motivating to track.

If you find it motivating, record your starting weight, waist measurement, blood glucose and blood pressure. Note other improvements in the way you feel over time, such as having more energy, better sleep, reduced cravings or hunger and fewer mood swings.

#### 2. Note the reasons why you want to try putting your type 2 diabetes into remission

This could be the desire to get off medications, avoid complications, be healthier and more available to family and children. The more reasons you can find the more motivation!

#### 3. Anticipate possible challenges. What will you find hard? Make a plan for it.

It could be upcoming travel or events, eating at restaurants, or missing key foods. What can you do to meet the challenge?

#### 4. What personal traits or relationships can you rely on for support. How can they assist you?