

potatoes and pasta, in addition to added sugars such as sweets, cookies, cakes, pastries and sugary drinks. People can enjoy healthy meats, protein foods such as yoghurts and lots of vegetables and salads.

✓ The good thing about low-carbohydrate diets is they can lower blood sugar without needing to lose as much weight.

### ADDED PROTEIN

 Protein can help the pancreas produce more insulin.

 This can help lower blood sugars even if you do not lose weight.

✓  High fibre foods also help insulin resistance and pancreatic function.

 It is a good idea to include a lot of plant protein in the diet alongside animal protein.

High protein diets may not be appropriate for certain conditions like kidney disease; consult your healthcare practitioner first.

### INTERMITTENT FASTING

This is a way of eating in which you limit what you eat or even fast at certain times. For example, some people choose to eat lightly or not at all once or twice a week.

Another type of intermittent fasting is called time restricted feeding, where people only eat during certain parts of the day - say from 12 midday to 6 PM. This type of eating helps people to limit the amount they are eating and may also have other benefits, though this is still unclear.

If you have type 2 diabetes treated with medications including SGLT2i, insulin or sulphonylureas, it is a good idea to make sure you are doing roughly the same thing every day - it can be very difficult to adjust medications safely and effectively if you do not eat Mondays but then do on Tuesdays, for example. For these patients, a better option would be the time restricted feeding.

 Talk to our nutrition team who can give you a personalised diet incorporating low-carbohydrate and high-protein, or time restricted feeding into your meal plans.

### SUPPLEMENTS

Many patients have questions regarding supplements and/or herbal remedies which could help manage their diabetes. There is some evidence that chromium or cinnamon can help, but this is not consistent.

Tablets and supplements are not regulated, which poses a major concern. Some tablets may have none of the active component in; while others might be very powerful. This makes it difficult to manage your diabetes.

If you want to sprinkle some cinnamon on your coffee or cereal this could help lower your blood sugar, and will not do you any harm, but it is best not to rely on this as a medical or dietary strategy.



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## DIETARY MANAGEMENT OF TYPE 2 DIABETES

The Nutrition Unit

## TYPE 2 DIABETES

In type 2 diabetes two major things go wrong:



The pancreas, the organ producing insulin, stops working properly - so it does not produce enough insulin.



Insulin resistance develops. This means that insulin cannot do its job of lowering blood sugar properly.



Both of these things cause blood sugar to rise.

Therefore, dietary management of type 2 diabetes should improve the function of the pancreas, and also reduce insulin resistance.

### WHAT CAN I DO TO REDUCE INSULIN RESISTANCE?

The good news is that there are lots of ways to help improve insulin resistance.



#### WEIGHT LOSS

Any amount of weight loss can improve insulin resistance. Our nutrition team can develop a personalised plan for you to help you to lose weight sustainably.



#### HEALTHY FATS

Studies show conclusively that replacing foods high in saturated fat with unsaturated fats (especially polyunsaturated fat) can

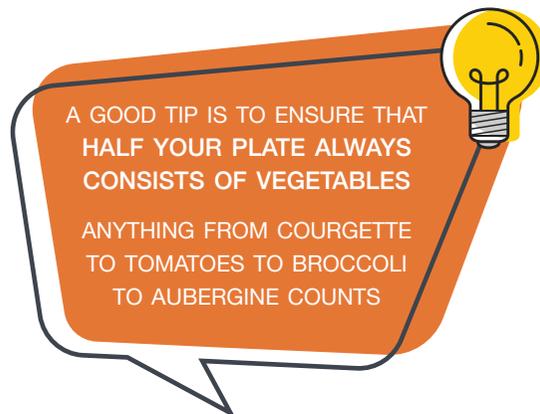
improve insulin resistance - even if you do not lose weight.

In practice, this means consuming less butter, red meat, cream, coconut oil and high fat dairy, and more avocado, olive oil, sunflower oil and canola oil.



#### HAVING MORE FIBRE

High fibre foods like wholegrains, fruits, vegetables, nuts, seeds and pulses can help improve insulin resistance - even if you do not lose weight.



Also, consider adding nuts or seeds to your breakfast cereal or salads, or even having vegetable sticks with hummus as a snack.

There are lots of different kinds of fibres, and it looks like getting an assortment from different sources is the best case scenario.

If you find it difficult to get enough fibre through food, you can attempt a supplement such as psyllium, inulin or guar gum.

### HOW CAN I IMPROVE PANCREATIC FUNCTION?

Losing a bit of weight, having healthier fats and more fibre might be able to improve the way your pancreas works slightly. However, to allow your pancreas to work properly again, it is necessary to lose a lot of weight.

In a recent study, **86%** of people who **LOST 10-15 KG** were able to:

- ✓ Have a functional pancreas
- ✓ Stop diabetes medications

It is worth noting that some people - despite losing 15 kg - are unable to achieve normal pancreatic function. People diagnosed with type 2 diabetes recently (within 6 years) are more likely to achieve remission of their type 2 diabetes via losing a lot of weight.



#### TYPE 2 DIABETES REMISSION SERVICE 2224-2999 ext. 2662

Contact us to see how diet can restore normal pancreatic function or help stop your medications in other ways

### WHAT ELSE COULD HELP ME?



#### LOW CARBOHYDRATE DIETS

This is a diet which eliminates added sugar and also starchy foods. People who follow this diet exclude most bread, cereals, rice