

# 4 + 2 Diabetes Reversal Strategy

Type II Diabetes is a disease of insulin resistance eventually leading to decreased insulin secretion.

Insulin resistance happens for a variety of reasons including age, genetics, obesity, especially visceral obesity, sedentary behavior, stress, poor sleep and of course poor nutrition.

Regardless of the cause, the effect is the same—initially the pancreas has to release more and more insulin to maintain blood sugars.

At some point, the pancreas can no longer keep up, insulin levels plateau and then decrease. When this happens, blood sugars begin to rise.

When blood sugars become mildly abnormal we call this pre-diabetes (5.5 mmol/L to 6.9 mmol/L). At this point, insulin levels are 2-3 times normal and 50% of pancreatic beta cells are dysfunctional.

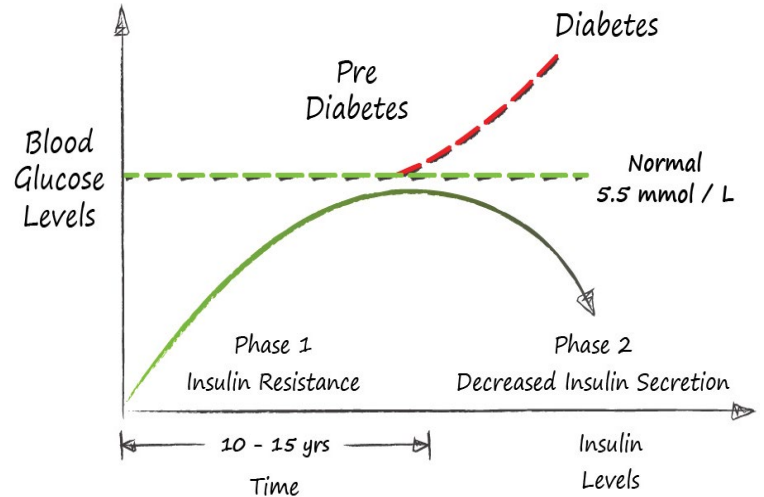
With further progression of pancreatic dysfunction, insulin levels begin to fall and blood sugars rise.

Once fasting blood sugars reach 7.0 mmol/L we call this Type II Diabetes and an estimated 80% of pancreatic beta cells are no longer secreting insulin.

Insulin resistance takes place in multiple organ systems: muscle, fat, liver and pancreas.

The sequence and degree of progression in these organs determines the pattern of disease in each person.

The key to reversing Type II Diabetes lies in understanding how each of these 4 organ systems become insulin resistant and what simple actions you can take to reverse the conditions that lead to insulin resistance.



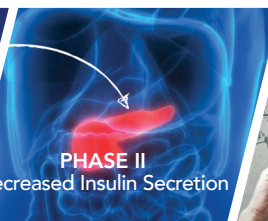
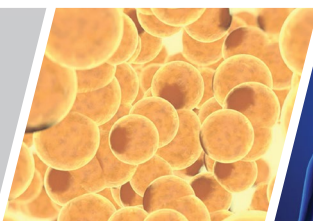
With insulin resistance the effect of stress and the importance of stress cannot be underestimated.

Both result in increased levels of the stress hormone cortisol and both increase appetite. Anything that chronically increases cortisol will worsen insulin resistance.

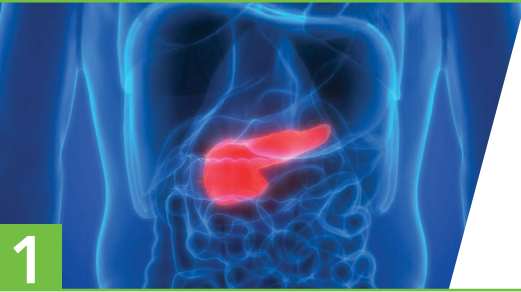
The Wellness Garage 4+2 Diabetes Reversal Strategy is an evidence-based approach that identifies the key behaviours that can reverse the underlying, tissue specific insulin resistance process.

In combination, changing these behaviours has been shown to improve insulin resistance and decrease or normalize blood sugars while decreasing weight and improving overall health.

If you are on diabetic medications, your dosing may need to be adjusted as you implement these strategies, and in some cases reduced before you start. For anyone on medications, we recommend consultation and close collaboration with a physician to ensure that you do not have any dangerous low blood sugar events.



# 4 STEPS TO REVERSE INSULIN RESISTANCE



1

## Lower Insulin: Lower Carbohydrates

The simplest way to take the load off the pancreas is to decrease carbohydrates—especially sugars and processed foods. Think sugar equivalents.

Pair with healthy fats and lean proteins. Real food, not too much, more plant based.

**Whole Food Low Carbohydrate**

## Get Active

Restore the muscle's role as the glucose sink.

- Resistance & High Intensity Intervals: use the muscles to take up more glucose
- Aerobic: walking, jogging, swimming in the fat burning zone, improves insulin sensitivity

**Aim for 150 minutes + of exercise**



2



3

## Be Kind to the Liver

Decrease/eliminate alcohol and fructose.

Improve gut health.

**Stop adding to liver fat**

## Restore Fat Burning

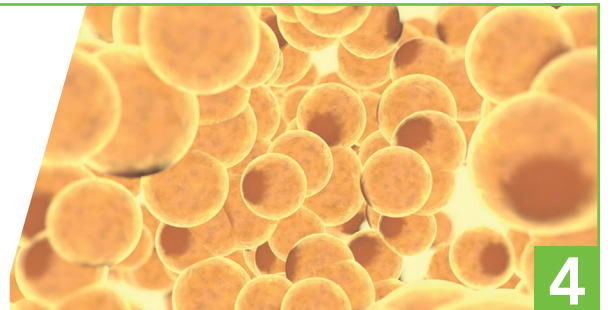
1, 2 and 3 will help.

Be sure that you are not eating excess calories.

**Try time restricted eating**—12,14 or 16 hours per day fasting.

**Try intermittent fasting**

\* If you are on medications seek medical guidance first.



4

# +2



## Decrease Stress

Cortisol the stress hormone works against insulin and increases appetite.

**Learn to De-Stress**

- meditation
- yoga
- mindfulness
- hobbies
- flow

## Improve Sleep

Lack of sleep increases cortisol and appetite.

- 8 hour window for sleeping
- Develop a sleep ritual
- Know the warning signs for sleep apnea



Learn More About Our 4+2 Diabetes Reversal Program