



Diabetes Reversal Strategy

4

Eat to Lower Insulin

Use Your Muscles

Be kind to your liver

Restore Fat Burning

+2

De-stress

Improve Sleep



Improve Sleep

Too much or too little sleep is associated with increased risk for Type II Diabetes.

Research shows that short term sleep restriction leads to increased appetite, food intake, weight gain and insulin resistance. This happens due to the increased stress response and high levels of cortisol associated with sleep deprivation.

Approximately one third of adults either sleep too much or too little, while at least another 10% have moderate to severe obstructive sleep apnea (OSA).



OSA is characterized by the collapse of the upper airway during sleep resulting in:

- * Intermittent hypoxia (low oxygen levels)
- * Sleep fragmentation

OSA is associated with the development of insulin resistance and Type II Diabetes.

This relationship may also be bi-directional - as diabetic nerve damage may also cause OSA - resulting in a vicious cycle.

OSA creates the perfect storm:

Lack of sleep drives increased appetite and lack of satiation leading to weight gain - weight gain worsens OSA.

Sleep fragmentation and intermittent hypoxia both cause:

- * Increased inflammation
- * Increased oxidative stress
- * Increased stress response
- * Increased cortisol levels

These processes in turn worsen insulin resistance and also affect the pancreas' ability to release insulin eventually causing Type II Diabetes.

These processes also trigger increased blood pressure and increase risk of cardiovascular disease.

OSA is treatable and under-diagnosed, especially in people with insulin resistance and diabetes.

The key symptoms are:

- * loud snoring,
- * fatigue, and
- * daytime sleepiness.

Other symptoms may include one or more of the following:

- * Restless sleep
- * Awakening with choking, gasping, or smothering
- * Morning headaches, dry mouth, or sore throat
- * Waking up to urinate more than once per night
- * Feeling unrested and groggy in the morning - "brain fog"
- * Fatigue, low energy, memory challenges with difficulty concentrating

Getting enough sleep is key to reversing insulin resistance and Type II Diabetes - start by setting yourself up for a good night's sleep, give yourself an 8 hour sleep window and develop a sleep ritual to improve your sleep. If there are any signs or symptoms of OSA - get a sleep assessment and investigate.

101 BEHAVIOURS

**8 Hour Sleep Window
Develop a Sleep Ritual**

NEXT STEPS

Investigate Warning Signs

Take Control of Your Health

For more information about
our 1:1 support



**Wellness
GARAGE**
Lifestyle Medicine Clinic