



DIABETES AND SLEEP

- People with diabetes often report poor sleep
- Getting enough sleep may help to control some symptoms of diabetes like daytime lethargy/fatigue
- Voluntary sleep restriction contributes to obesity and diabetes
- Diabetes and sleep apnea are often found together

Note: All words that are underlined relate to topics in the Sleep Health Foundation Information Library at www.sleephealthfoundation.org.au

1. What is diabetes?

Diabetes mellitus is a condition where blood sugars become elevated because the body is either unable to produce sufficient insulin or the body tissues becomes resistant to the effects of insulin. Elevated blood sugar levels may damage numerous body systems over time. This means that people with diabetes are at increased risk for a number of conditions such as poor eyesight, strokes, heart attacks, limb amputations and kidney failure.

There are 3 basic types of diabetes: type 1 diabetes, type 2 diabetes, and gestational diabetes. Type 1 is a condition where the insulin producing cells in the pancreas stop working. This often becomes evident in childhood which is why the condition was previously known as juvenile diabetes but it can occur at any age. Until the discovery of insulin it was a fatal condition. Type 1 diabetes is now manageable, and if closely treated, can be associated with a normal and healthy life. Type 2 diabetes is the commonest form and is usually seen in overweight or obese adults. As a result of the obesity epidemic, it is now even seen in adolescents, and occasionally in children too. It involves the pancreas producing insufficient insulin and/or the tissues of the body becoming resistant to insulin. Weight loss, oral medications and later insulin injections are used to treat type 2. HbA1c is a blood test useful in estimating the quality of blood sugar control in the prior 3 months. Gestational diabetes also involves insulin resistance but occurs only during pregnancy. It can disappear after the pregnancy but recur in later life or future pregnancies. It can have serious consequences for the baby and mother and is now routinely tested for in Australia.

This fact sheet is mainly about type 2 diabetes.

2. Sleep in diabetes

People with diabetes often report poor sleep. This may be due to dry mouth and frequent needs to pass urine overnight in addition to co-existent sleep apnea. Occasionally, people with diabetes taking insulin (or sulphonylurea tablets) can suffer a "hypo" (very low blood sugar) overnight with a rebound elevation in blood sugar level in the morning (called the Somogyi effect). Another common symptom for people with diabetes is daytime lethargy/fatigue. Getting enough sleep each night can help to control this symptom. As a guide, most adults need about 7 to 9 hours sleep every night (see How Much Sleep Do You Really Need and Ten Tips for a Good Night's Sleep).

3. Insufficient sleep could be a risk factor for developing diabetes

Many large studies from around the world are reporting that not getting enough sleep is a risk factor for the onset of diabetes. Almost all of these studies have not controlled for the presence or absence of sleep apnea.

Some short-term laboratory studies have shown that sleep restriction to 4 hours a night may induce a pre-diabetic state in healthy people. But it is not known whether this would turn into clinical diabetes over the long term.

It may not be lack of sleep causing this. It could be that people who say they don't sleep much are spending their awake time eating too much,



For other popular helps visit us online at

www.sleephealthfoundation.org.au

eating the wrong food, or eating at the wrong time of the day for their body to be able to process that food properly. This link is supported by studies showing that people who have inadequate amounts of sleep often make poor food choices and may seek sweet foods to make them feel more alert.

Eating too much may cause obesity and that can cause diabetes.

4. Sleep apnea and diabetes

Sleep apnea and diabetes are very often found together. When one condition is diagnosed the other could be there in 50-80% of patients.

Even in people without diabetes, the presence of sleep apnea may predict diabetes developing within the next few years.

It is not yet known whether treating sleep apnea with Continuous Positive Airway Pressure (CPAP) in people without diabetes can stop them developing diabetes.

Effective weight loss programmes in people who are overweight or obese will help alleviate or avoid the development of both conditions.

If you do have both diabetes and sleep apnea then treatment of sleep apnea with effective therapies such as CPAP will help control your symptoms of sleep apnea. However, recent clinical trials suggest that CPAP will not control your diabetes beyond the effective medications that are specifically for diabetes and weight loss. You should continue to use any medications you were prescribed by your doctor and discuss any medication changes with them.

Further information

www.diabetesaustralia.com.au

For information on over 70 different sleep related topics, written by professionals, visit the Sleep Health Foundation Information Library at www.sleephealthfoundation.org.au. The underlined topics in this article are covered in detail there.



Sleep Health Foundation

114/30 Campbell Street, Blacktown NSW 2148
T: +61 (0) 2 8814 8655 F: +61 (0) 2 9672 3884



www.facebook.com/SleepHealthFoundation

This information is produced by:

Sleep Health Foundation ABN 91 138 737 854

www.sleephealthfoundation.org.au

A national organisation devoted to education, advocacy and supporting research into sleep and its disorders.

Disclaimer - Information provided here is general in nature and should not be seen as a substitute for professional medical advice. Ongoing concerns about sleep or other medical conditions should be discussed with your local doctor.

© Sleep Health Foundation, 2019
Version 1: November 2019