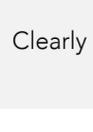


The Association Between Diabetes and Depression

What is depression?

-  Depression is characterised by constant feelings of low mood, lethargy and lack in interest in normal activities.
-  Mental illness, including depression, impairs a person's ability to carry out daily tasks and interact with others.
-  Depression can lead to other dysfunctional behaviours such as drug and alcohol abuse, self mutilation and of course, suicide.
-  The National Institute (USA) of Mental Health reports that 20% of adults and 10% of children experience some form of mental illness each year.
-  Data from the WHO (World Health Organisation) shows that mental disorders account for **four out of 20** causes of disability worldwide.

Clearly this is a debilitating condition and needs to be taken seriously!

How diabetes impacts psychologically

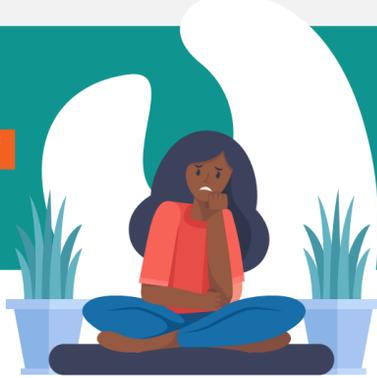
-  Psychological problems in both children and adults with diabetes are many and varied.
 -  They are often the result of family conflicts regarding the acceptance or denial of the diabetic condition.
 -  It takes discipline to eat the right foods, take multiple medications and to constantly check on your blood glucose levels with the anxiety that they may be too high or too low at any one time. It is stressful and often overwhelming!
 -  Just dealing with a normal day requires discipline and failure to comply with the never-ending list of restrictions as well as abiding by all the "rules" that give you control over your condition can be debilitating and draining.
 -  Conflict arises when your partner believes that you haven't tried hard enough or that you are "cheating" on the side with food and not taking your medication appropriately.
-  Relationships become strained when the person with whom you are most intimate and caring becomes the law enforcer, creating more stress and more rules that you feel you cannot live up to.

How do you know if it's depression?

There is a point in everyone's life when we deal with low mood and feeling depressed. Clinical depression, however, is much more serious and like any other illness, needs to be treated.

There appears to be a bidirectional relationship (in other words, both factors can cause the other) between the two conditions which share some biological causes.

Diabetes can **lead to depression** and suffering from depression raises the **risk of developing Type 2** diabetes).



Nature vs Nurture

Recent studies have shown that there are no genetic factors responsible for depression in type 1 or type 2 diabetes. However, there are some environmental factors that seem to activate common pathways in type 2 diabetes and depression.

-  One of these factors is a **low socioeconomic status** (low income group) which increases the likelihood of diabetes and also predisposes one to depression.
-  Other common causes of type 2 diabetes are **poor sleep, lack of physical exercise and an inappropriate diet**. Taking into consideration these factors, a key candidate for a common pathway between these two conditions is **the activation and disturbance of the stress system**.

The impact of chronic stress

- 1** Chronic stress activates an area in the brain called the hypothalamus-pituitary-adrenal axis (the HPA-axis) and the sympathetic nervous system (SNS) which increases the production of cortisol (cortisone) in the adrenal gland (small glands sitting above each kidney) and the production of the stress hormones, adrenalin and noradrenalin.
- 2** These increased cortisol levels and the overstimulation of the SNS promote insulin resistance, visceral obesity (a fancy name for excess belly fat) and can lead to metabolic syndromes including the development of type 2 diabetes.
- 3** On the other hand, chronic stress has behavioural consequences as these hormones that are now being produced in excess, activate the fear system, which controls anxiety, lack of appetite or conversely, an excessive appetite.
- 4** These same agents cause a desensitisation of the reward system, which produces depression and food cravings or cravings for other substances, thereby increasing the levels of stress and anxiety.
- 5** The excess amounts of cortisol (stress hormone) disturbs the formation of nerve pathways in the hippocampus, which is an area of the brain that is involved in both depression and the development of type 2 diabetes.

Additional challenges for those with Type 1 diabetes

People with type 1 diabetes need a different and more complicated management of their condition compared with type 2 diabetics.

They require:

-  More frequent monitoring of their blood glucose levels,
-  Constantly adjusting insulin doses with physical activity and diet.

The age of onset is also much earlier than in type 2 diabetes so other factors play a massive role such as:



Rebellion



Denial



Non-compliance

Nonetheless, it is still a condition that can be successfully treated.

While the association between diabetes and depression definitely exists, it **does NOT mean that because you have been diagnosed with diabetes, you will suffer from depression or vice versa**.

TAKE NOTE There are a number of factors that can predispose an individual to depression, so it is important to look at those and understand where you fit in, so if you do have a greater risk of developing depression, you will be empowered to seek help as soon as you can.