

Understanding the link between autism and diabetes



Every day, doctors and scientists discover new things about autism. One area of research focuses specifically on the link between autism and chronic illnesses, and several studies have uncovered potential evidence.

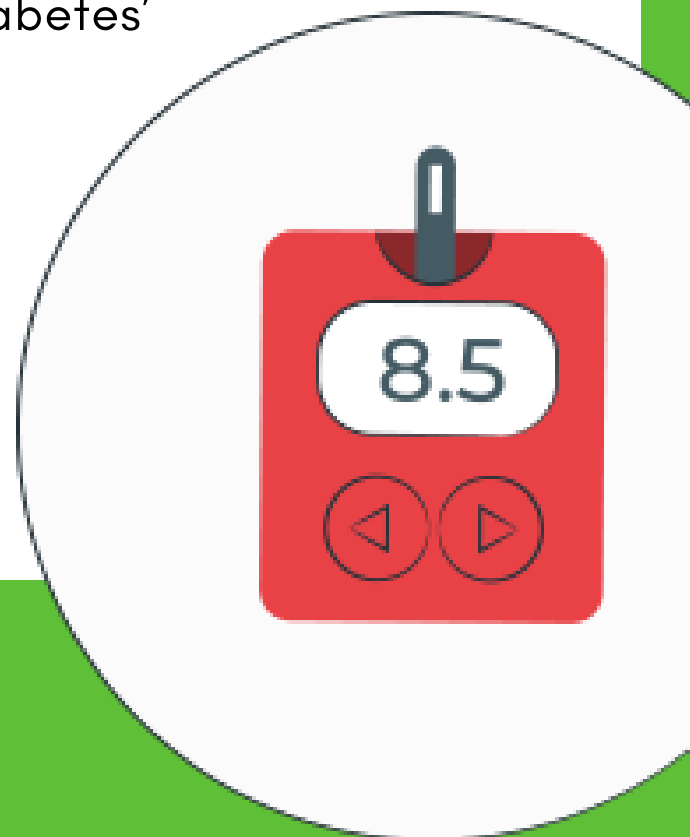
Recently, we looked at possible links between autism and Alzheimer's. For World Diabetes Day, let's investigate the possible connection between autism and diabetes.

What is diabetes?

Diabetes is a chronic condition that causes a person's blood sugar to be too high. There are two main types of diabetes:

- *Type 1 diabetes:*

Often referred to as 'juvenile diabetes' because it usually begins at a young age, type 1 diabetes is caused by various genetic factors. The body's immune system attacks and destroys the cells that produce insulin.



- *Type 2 diabetes:*

Type 2 diabetes typically develops later in life and is the most common type of diabetes. It occurs when the body does not produce enough insulin, or the body's cells do not react to insulin. In the UK, around 90% of all adults with diabetes have type 2.

No cure currently exists for either type of diabetes. If left unmanaged, diabetes can lead to a number of serious health problems including nerve damage, kidney damage, heart attacks and strokes.

The link between diabetes and autism

Studies have shown that unfortunately people with autism are three times more likely to develop type 2 diabetes during their lifetime.

One 2016 study in Taiwan compared 6,122 young adults with autism to 24,000 controls with no history of diabetes. Within nine years, 1.6% of the autistic group had developed diabetes, while only 0.4% of controls suffered the same. The people with autism were also more likely to be obese, and these obese individuals were 3.5 times more likely to develop type 2 diabetes than those who were a healthy weight.

Possible reasons for the link

There are a variety of factors that could contribute to the connection between autism and diabetes.

The most significant of these is the link between autism and obesity, which generally precedes the development of type 2 diabetes. Scientists have suggested several reasons why autistic people might be at greater risk of weight gain, such as:

- People with autism are more likely to be taking atypical antipsychotics
- Certain genetic risk factors for autism, such as deletions on chromosome 16



However, studies have been carried out that controlled for obesity, medication use, and others, but the threefold risk for autistic people remained. This points to genetic or environmental causes, which could include:

- Women with diabetes are more likely to have children with autism, who will be genetically predisposed to type 2 diabetes
- The gene *GL01* is linked to both autism and type 2 diabetes
- People with autism can be picky about what they eat, and are more likely to eat unhealthy foods as a result
- Many people with autism have poor access to healthcare services, social support, housing, and employment, all of which are associated with improved health

