We celebrate World Autism Day this month. What does that have to do with diabetes? Is there a relationship between autism and diabetes? Here are two facts:

1. The rate of diabetes is increasing dramatically \(^{(1)}\).
2. 1 in 68 children are diagnosed with autism each year\(^{(2)}\).

What is autism?

Autism is a poorly understood developmental disorder characterized by social impairment, communication deficits and compulsive behaviour. It appears to be a genetic disorder, more common in boys than in girls. It is also a ‘wide-spectrum disorder’, which means it can manifest in different ways, from high-functioning autism, like Asperger’s syndrome, to low functioning autism where the child cannot even speak. About 40 % have above average to high intelligence, yet about 25 % are completely nonverbal \(^{(3)}\). This 25 % are largely unable to function on their own and need permanent care-givers to attend to their basic needs.

Children with Asperger’s syndrome have great difficulty relating to and communicating with their parents and others. They struggle with basic emotions. The following quotes come from various Asperger’s support blogs: “I had to practice facial expressions that expressed emotions” said one boy. As they get older and more conscious of their behaviour, many high-functioning people with autism work hard at assimilating into society. They desire friendships and have sexual feelings, but they lack social competence. An inability to respond to the interests and emotions of others makes it difficult to develop friendships. “I decided to study the ‘normals’ in an effort to become less off-putting to the general population. Eventually, I was able to use my new skills to venture out into the world.”

People with autism often have sensory issues and do not like the stimulus of being touched or hugged. They may also have auditory sensitivity. “I had such a giant meltdown over the sound of dishes touching each other a few weeks ago that I wound up sobbing and rocking back and forth with a blanket over my head, trying to block out any and all stimulus.”

Is there any proven link between autism and diabetes?

The answer to this question is still heavily debated, and without a consensus. Studies in Italy and America suggest that there could be a link between type 1 diabetes and autism \(^{(4,5)}\). According to Daneman in Canada \(^{(6)}\), where there is an increased incidence of type 1 diabetes together with an increased incidence of
In type 2 diabetes, there appears to be a more substantial link with autism. A study showed that children of mothers with type 2 diabetes or gestational diabetes had an associated increased risk of autism \(^8\). Henci Goer of Science and Sensibility suggested that children in disadvantaged families appear to be at more risk, but the interrelationship is not clear \(^9\). Other potential factors such as chronic extreme stress could also contribute. A study published this year found pre-pregnancy obesity together with type 2 diabetes was associated with an increased risk of autism and intellectual disabilities \(^10\).

**Yet there are people out there dealing with both conditions. What is that like?**

Allison Blass sought to answer this by interviewing parents of children who have type 1 diabetes and autism \(^11\).

One mother said of her 14 year old son, “He has never communicated pain, or feeling ill. We are always so concerned about whether he will communicate with people when he needs sugar or when he's feeling bad... He will always require daily support with living skills because his difficulty communicating and deficits with daily living skills puts him in danger.” Repetitive body movements such as rocking or flapping their hands even make it difficult to work with the doctor.

One boy in high school explained, “One of the biggest issues is my inability to describe how my body feels, and in me wanting doctors to give me more space. I'm a little concerned that we can't really tell if I have neuropathy because I don't know what I'm feeling. I've had a few medical providers who were freaked out because I was jumping or flapping and they figured that meant something was wrong.”

Many people with autism resist change, and because diabetes management can be easier with a strict routine, the two can go hand-in-hand. The routine of diet and daily medical care can make it easier for the child once they have accepted the change. Yet, it can be a big issue to get the child to accept new food without a corresponding stress reaction and, in turn, the stress reaction can cause blood glucose spikes. It can be frustrating!

Type 1 diabetes is a huge challenge for parents, but when you add autism to the mix, it could become overwhelming. Hats off to those parents who are doing this! We wish you daily strength!
References: