

Is there a connection between gluten and diabetes, autism?

Source: Kristin Kirkpatrick, MS, RD, LD | March 2014 | 7 min read

As a dietitian, you most likely interact with patients who may have multiple health conditions, including celiac disease and other autoimmune diseases. While knowing how to connect one on one with your patients is important for behavior change, it's scientific evidence that should provide the backbone for your recommendations. Although research promoting a gluten-free diet for various health conditions is relatively new, we can expect to see more data in the next few years. As research emerges, we can then incorporate these findings into our practice to help patients reap all of the potential health benefits of a gluten-free diet.

"Potential" celiac disease patients:

A [2010 study](#) found that most patients classified as potentially having celiac disease based on immunological abnormalities that are similar to those found in celiac patients should also adhere to a gluten-free diet. Researchers concluded that these patients share the same "metabolic fingerprint" as diagnosed celiac patients and should follow the same avoidance of wheat, rye and barley.

Type 1 diabetes:

Researchers have established a connection between the gut and the body's response to certain autoimmune diseases, and scientific data is now shedding light on the role gluten may be playing. One 2006 [population-based study](#) followed pediatric patients with type 1 diabetes to determine the prevalence of celiac disease as well as the effects on clinical outcomes of following a gluten-free diet. Results showed a high prevalence of celiac disease in children with type 1 diabetes and that they had lower scores for height and weight. After following a gluten-free diet for two years, participants experienced increases in height, weight, hemoglobin and serum ferritin, although HbA1c remained unchanged. These results led researchers to recommend screening for celiac disease in all children with type 1 diabetes. Additionally, a [2009 study](#) found a potential association between wheat and the development of type 1 diabetes. Researchers tested 42 type 1 diabetic patients and found that almost half had an abnormal immune response to wheat proteins.

Rheumatoid arthritis:

As an inflammatory condition, rheumatoid arthritis is associated with a higher risk of heart diseases. A [2008 study](#) found that a gluten-free vegan diet could help rheumatoid arthritis patients by decreasing their risk factors for heart attack and stroke. Researchers found that the gluten-free vegan diet decreased "bad" LDL cholesterol and increased antibodies associated with rheumatoid arthritis symptoms.

Autism:

The origins of autism remain unclear and, to date, autism is not officially considered an autoimmune disorder. However, researchers are finding evidence that may link autism to an immune reactivity to gluten that is unrelated to celiac disease. A [2013](#)

[study](#) found that children with autism were more likely to have elevated antibodies to gluten protein when compared to children without autism. Researchers noted that this is an area that warrants additional research and attention to explore the use of biomarkers and disease pathophysiology.