

# Tests show no specific gastrointestinal abnormalities in children with autism

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Children with autism have no unique pattern of abnormal results on endoscopy or other tests for gastrointestinal (GI) disorders, compared to non-autistic children with GI symptoms, reports a study in the *Journal of Pediatric Gastroenterology and Nutrition* (JPGN), official journal of the European Society for Paediatric Gastroenterology, Hepatology and Nutrition and the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition.

The study finds no evidence of cellular [intestinal inflammation](#), lactase deficiency, or "leaky gut" specific to autistic children with GI symptoms, according to the new research, led by Timothy Buie, MD, Rafail Kushak, PhD, and Harland Winter, MD, of MassGeneral Hospital for Children, Boston. The results raise questions about previous scientific and non-scientific reports linking GI abnormalities to [autism](#) and autistic behaviors.

## Similar Findings in Autistic versus 'Neurotypical' Children with GI Symptoms

The researchers analyzed the results of diagnostic tests in 61 children with autism being evaluated for GI symptoms, such as abdominal pain or constipation. The findings were compared with those in 50 non-autistic, or "neurotypical," children undergoing similar tests. All tests were performed as part of routine clinical care—not solely for the purposes of the study.

The study focused on certain abnormalities with previously suggested links to autism. These include intestinal inflammation; deficiency of the digestive enzyme lactase, associated with lactose intolerance; and increased intestinal permeability, sometimes called "leaky gut."

Intestinal biopsy samples showed mild levels of microscopic inflammation in some of the children with autism, as well as in some of the non-autistic children. Markers of intestinal inflammation, lactase deficiency, and intestinal permeability were all similar between the children with and without autism.

Children with autism have behaviors that affect social interaction and both verbal and nonverbal communication. Common problems such as acid reflux or constipation may lead to atypical symptoms in children with autism—for example, aggressive or self-injuring behavior.

"Consequently, gastrointestinal problems that might easily be recognized in a neurotypical child may go undiagnosed in a child with autism," the researchers write.

These unusual symptoms have led to the suggestion that autism behaviors might be linked to underlying GI disorders—or even that GI abnormalities contribute to the development of autism. Some parents and clinicians have observed improvements in autism-related behaviors and GI symptoms with special diets and other "non-evidence based interventions."

But the new study questions the reported links between autism and GI abnormalities, showing no significant differences in intestinal inflammation, lactase deficiency, or [intestinal permeability](#) in autistic versus non-autistic children with GI symptoms. "The results of this study suggest that common gastrointestinal problems occur in children with autism and should be evaluated," according to the authors. They add, "There is no evidence to support that gastrointestinal disorders cause

autism."

The researchers emphasize that the findings of endoscopy and other diagnostic tests in autistic children with GI symptoms are similar to those in nonautistic children with similar GI symptoms. However, they note, "Identifying [children](#) with ASD who have concomitant medical conditions such as inflammatory bowel disease, malabsorption, or lactose intolerance may be challenging because their [symptoms](#) are atypical."

**More information:** Rafail I. Kushak et al. Evaluation of Intestinal Function in Children with Autism and Gastrointestinal Symptoms, *Journal of Pediatric Gastroenterology and Nutrition* (2016). [DOI: 10.1097/MPG.0000000000001174](#)

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