

Common heart drug might dampen some autism symptoms

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Study found benefit most pronounced in those with milder forms of developmental disorder.

(HealthDay)—A medication typically prescribed to control high blood pressure that's commonly referred to as a water pill may ease some of the symptoms of autism, researchers say.

That's especially true for people who have milder forms of the disorder, the new research indicates.

"Bumetanide is a promising novel [therapeutic agent](#) to treat autism," wrote the study's authors, who were quick to point out that this treatment is not a cure for autism and that larger trials need to be done to determine who would benefit most from this treatment.

Results of the study appear online Dec. 11 in the journal *Translational Psychiatry*.

Autism is a [developmental disorder](#) that results in [communication problems](#), [social difficulties](#), [repetitive behaviors](#) and restricted interests, according to background information in the study. The exact cause of the disorder isn't yet known, though genetic and environmental factors are believed to play a role.

Scientists have also studied neurotransmitters, suspecting that these [chemical messengers](#) in the brain might not be working as they should in people with autism. Gamma-aminobutyric acid ([GABA](#)) is one such neurotransmitter, and the medication bumetanide appears to be able to alter the function of GABA, at least in animals, according to the researchers.

In this latest study, the researchers gave 60 children who had been diagnosed with autism or Asperger's syndrome either 1 milligram of bumetanide or an inactive [placebo pill](#) daily. All of the children were between 3 and 11, and the study period lasted three months.

The severity of autism was determined by videotaped evaluations done on the first day of the study and the 90th day, by researchers who didn't know which children had received active treatment and which had been given a placebo pill.

Using several standardized autism assessment tools, the researchers found that bumetanide improved autism symptoms. The effects of the medication were more pronounced in children with milder autism. In case reports included in the study, some of the improvements seen included more eye contact, improved non-verbal communication and better social communication.

Side effects were very mild, though the use of the drug does require periodic monitoring for potassium levels; one child in the study had low potassium levels.

Senior study author Yehezkel Ben-Ari, founder of the Institute of Neurobiology of the Mediterranean Sea in Bohars, France, said the authors believe that the improvement in symptoms is due to an effect on GABA caused by the drug.

One expert said the findings look promising.

"This is a very interesting study. The authors have taken a medication that's been on the back shelf for decades and, surprisingly, found a clinically significant benefit when used in children with autism, especially those on the milder end of the spectrum," noted Dr. Andrew Adesman, chief of developmental and behavioral pediatrics at the Steven and Alexandra Cohen Children's Medical Center of New York in New Hyde Park, N.Y.

"Children would need to be on this medication indefinitely, because their improvements deteriorate when the medication is stopped. And, we don't yet know if there are any long-term concerns," he said. "Hopefully, this study will be a catalyst to new research. We need to see additional studies before we can recommend this treatment widely, but since it's already FDA-approved, we should know more in just a few years."

More information: To learn more about [autism](#), visit the U.S. Department of Health and Human Services.

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