

New treatment for social problems in autism? Oxytocin improves emotion recognition

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Autism spectrum disorders (ASD) are developmental disorders usually diagnosed in childhood. Children with ASDs have impairments in social interactions and communication, and a tendency towards repetitive behaviors. A hallmark of autism is a difficulty in understanding and reciprocating the emotion of others. Although behavioral therapies can improve some symptoms of autism, there is currently no effective treatment for these problems.

Oxytocin is a hormone that has effects on [brain function](#). Although it is best known for its role in facilitating labor, delivery, and breast-feeding, it is also important in promoting trust, love, and social recognition.

In a new study in [Biological Psychiatry](#), published by Elsevier, Australian autism experts recruited adolescents with ASDs. Using a rigorous study design, they administered a single dose each of oxytocin and placebo via a nasal spray, received one week apart. Both times, the subjects were asked to complete a facial expression task that measures emotion recognition.

Compared to administration of the placebo spray, the subjects' performance on the task was improved when they received the oxytocin spray.

These findings provide the first evidence that "a brief and simple intervention can improve emotion understanding in [autism](#), or in fact any clinical disorder associated with social dysfunction. It is also the first to

show the benefits of oxytocin nasal spray in young people, suggesting potential for earlier intervention where there may be greater opportunity to improve development," explained author Dr. Adam Guastella. "This study, therefore, makes an important advance with the longer-term hope that oxytocin could be used to improve social function in everyday settings for clinical disorders associated with social dysfunction."

Since this was a relatively small study, additional research is still needed to confirm these promising findings and further evaluate oxytocin as a potential treatment. Until then, the authors advise against the use of [oxytocin](#) outside of supervised clinical trial research.

More information: The article is "Intranasal Oxytocin Improves Emotion Recognition for Youth with Autism Spectrum Disorders" by Adam J. Guastella, Stewart L. Einfeld, Kylie M. Gray, Nicole J. Rinehart, Bruce J. Tonge, Timothy J. Lambert, and Ian B. Hickie. Guastella, Einfeld, Lambert, and Hickie are affiliated with the University of Sydney, Sydney, Australia. Gray, Rinehart, and Tonge are affiliated with Monash University, Melbourne, Australia. The article appears in *Biological Psychiatry*, Volume 67, Issue 7 (April 1, 2010)

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