



## MEDICAL NEWS

### **Autism symptoms less severe after treatment, says U of L research team**

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LOUISVILLE, Ky. - People with autism experienced less severe symptoms after researchers pulsed a low frequency magnetic field around their brains, a University of Louisville research team announced today.

The treatment, transcranial magnetic stimulation, is still in early testing stages, but has potential to become an effective treatment for the major symptoms of autism, said neuroscientist Manuel Casanova.

Members of the UofL research team placed a coil on the scalps of 10 people with autism to create a low frequency magnetic field, which they then pulsed by reversing the field's polarity. After receiving a 20 minute treatment twice a week for five weeks, patients showed fewer symptoms of hyperactivity, sensory overload and repetitive behaviors, said psychologist Lonnie Sears, a project collaborator.

Symptoms were assessed before and after the treatment by measuring patients' brain activity and scores on standard neurological and psychological tests.

Casanova has demonstrated in previous studies that structural differences between autistic and normal brains contribute to the symptoms of autism, including sensory, social and communication problems that limit the patients' ability to function independently.

"Our results are preliminary, but they show a great deal of promise in reducing the severity of symptoms that people with autism find most distressing and, as a result, helping them communicate and relate better - something that most of us take for granted," Casanova said.

The team also found that the treatment did not seem to affect areas of "giftedness" in the test group.

"This is important because, despite communication and social problems, some people with autism are very gifted in specific areas of intelligence," he added.

One in 150 children is diagnosed with autism each year and rates of diagnosis have increased sharply over the last two decades, according to the U.S. Centers for Disease Control and Prevention.