

# Autism breakthrough could lead to new treatments

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Researchers say they have identified two different types of autism, paving the way for more targeted treatment. Credit: Flickr/Pondspider

US researchers say they have identified at least two distinct types of autism, paving the way for new and more targeted treatments.

Autism, a neurobiological disorder that impairs social interaction skills and causes an unusual interest in repetitive behaviour, affects around 1 in 160 Australian children. Four out of five children with [autism](#) are boys.

[Treatment options](#) range from behavioral and therapy-based interventions to alternative medicines but so far researchers have been unable to differentiate between shades of autism.

Now the world's largest study of children with autism has led to the discovery that there are at least two biologically distinct subtypes of the disorder.

Researchers from the MIND Institute at the University of California used data on 350 children with autism from the five year [Autism Phenome Project](#), to identify the two types.

One group have unusually large brains by four to

five months of age, even where the symptoms of autism are not seen until 18 to 24 months.

Another subgroup was identified in which the [children](#) had some kind of immune system dysfunction.

Dr. David Amaral, Research Director of the UC Davis MIND Institute in the USA, said further research may reveal several more subgroups of autism, paving the way for more specialised treatments.

"I'd use the analogy of cancer. We know there's something in the order of 200 to 300 types of cancer and what causes them is different things. It hasn't made sense in cancer to try to solve all cancer at the same time, you go after them one at a time," he said.

"Autism is equally complex and we are fairly confident with the idea that what causes the autism in different individuals could be quite different."

"Trying to understand autism all at once is not productive," he said.

A better understanding of the different causes could lead to the development of new medicines targeting those abnormal processes, he said.

Dr. Amaral presented his findings at the [Asia Pacific Autism Conference](#) in Perth today.

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