

Down syndrome trial may hold key to learning

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A world-first trial will use a common cough syrup ingredient to boost the quality of life of up to six million people with Down syndrome.

(Medical Xpress)—An ingredient used for decades in cough syrup, and to treat a variety of conditions, could hold the key to improving memory, language, and learning in people with Down syndrome.

In the first trial of its kind targeting cognitive impairment in people with [Down syndrome](#), researchers at Monash University are currently investigating the effectiveness of the ingredient, known as BTD-001, and its potential to significantly improve the quality of life of people with

Down syndrome - the most common genetic form of [intellectual disability](#) affecting six million people worldwide.

Principal Investigator, Director of the Centre for [Developmental Disability](#) Health Victoria, Associate Professor Bob Davis, said early scientific evidence into the drug's ability to improve the cognitive function of people with Down syndrome was promising.

"Although it's too soon to draw any conclusions, we're hopeful this trial and the continued development of the drug could lead to a product that can improve the [cognitive abilities](#), and ultimately the quality of life of people with Down syndrome," Associate Professor Davis said.

"With further development, we hope this could provide a path to improving some of the difficulties those living with Down syndrome may have, such as the ability to learn at school, to become self reliant, to get a job or to manage their own finances.

"To date management has tended to focus on treating the physical complications of Down syndrome, but we now have a better understanding of the science underlying how Down syndrome impacts [brain function](#) to cause [cognitive disability](#)."

The clinical study is based on recent research at Stanford University which first uncovered the strong potential of BTD-001 to improve reasoning, memory and learning capabilities of people with Down syndrome.

Associate Professor Davis and his team are currently trialling a new lower dose formulation of the drug, which was discovered in the 1920s, and later used in [cough syrup](#), as well as a respiratory stimulant to treat a wide variety of conditions including dementia until the 1980s. The drug is still used in cough syrup for children in parts of the world.

Associate Professor Davis and researchers are working with people with Down syndrome aged between 13 and 35. They hope to recruit participants from Adelaide, Brisbane, Launceston, Melbourne, Perth, Sydney, and Wollongong to take part in the trial.

Development of this product is supported by the USA Government through the National Institute of Health and US based company Balance Therapeutics and its subsidiary based in Melbourne, Australia.

Provided by Monash University

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