

ADHD drug shows promise in treating some symptoms of Alzheimer's disease – new research

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The search for a way to [treat Alzheimer's disease](#) has puzzled scientists for decades. This may be why some researchers are shifting their focus slightly, investigating whether treating the systems affected by Alzheimer's (as opposed to the causes) may better help them find a treatment.

This is exactly what researchers of a new study have shown – finding that drugs normally [used to treat ADHD](#) may actually show promise in managing symptoms of Alzheimer's disease.

The researchers conducted a systematic review which looked at how noradrenergic drugs (commonly used for ADHD) work for managing Alzheimer's disease symptoms. The review found that taking these drugs improved certain brain functions and other symptoms, such as apathy, in patients with Alzheimer's disease.

Noradrenergic drugs target the [noradrenergic system](#), which comprises a small part of the brainstem called the locus coeruleus. This area is involved in a broad array of brain functions, such as [memory, attention and learning](#). This system is primarily controlled by a neurotransmitter (a special type of brain cell that sends and receives messages in the brain) called [noradrenaline](#) – which also plays an important role in our body's "fight or flight" response.

ADHD drugs could treat ALZHEIMER'S symptoms: Pills like Ritalin kickstart part of brain that influences memory, learning and attention, study finds

- **Significant improvements in 60-85-year-olds with dementia given ADHD drugs**
- **Drugs kickstart brain region which influences things like learning and memory**
- **Brit team looked at 19 studies dating back 40 years involving 2,000 patients**

Common drugs given to hyperactive children could also treat [Alzheimer's](#), research suggests. [Dementia](#) patients given [ADHD](#) medication like Ritalin saw significant improvements to their cognition and brain function, according to a review. The drugs are thought to be a good match because they kickstart a brain region that influences things like attention, learning and memory.

British researchers looked at 19 studies that dated back 40 years and involved nearly 2,000 patients, mostly aged between 65 and 80. Participants given noradrenergic drugs saw a 'small but significant' improvement in overall cognition, including memory, verbal fluency and language. The team also discovered the drugs influenced behaviour, and made patients feel less apathy and lack of motivation.

The researchers from Imperial College London, the University of Cambridge and University College London are now calling for more clinical trials of the drugs' effect on Alzheimer's. They say there is 'good evidence' the drugs could help.

Common drugs given to hyperactive children like Ritalin could treat Alzheimer's disease, research suggests. The medicines — which were given to patients for between two weeks and a year — work by targeting noradrenaline, a chemical substance that is released by a network of specialised neurons in the body. This network is critical for many cognitive processes including attention, learning, memory and the suppression of inappropriate behaviours. The drugs had no effect on attention, according to the study but there was small improvements to overall cognition and a 'large positive effect' on apathy symptoms.

Reacting to the findings, Dr Mark Dallas, associate professor in cellular neuroscience at the University of Reading, said repurposing drugs that already exist to treat dementia is an 'exciting prospect'.

He said the review, published online in the [Journal of Neurology Neurosurgery & Psychiatry](#), is an 'interesting teaser that drugs used to manage other conditions could join the fight against dementia'.

University of Nottingham's assistant professor of psychology Dr Andrew Reid said the study shows a 'promising new avenue of research' as it suggests 'a way to identify individuals at risk and treat them much earlier than is currently possible'.

Alzheimer's is the most common form of dementia, affecting over half a million people in the UK and around 6million in the US. The disease causes brain cells to die and areas of the brain to change - including the noradrenergic system.

Dr Rosa Sancho, Head of Research at Alzheimer's Research UK, said: 'There is currently a lack of drugs approved to treat apathy in Alzheimer's, a symptom that has been linked to lower quality of life, faster decline and increased stress for carers.'

'This well-conducted meta-analysis highlights the potential of noradrenergic drugs to treat some aspects of Alzheimer's, but the evidence in the trials reviewed here varies in quality and it's hard to directly compare results from each study because the methods used are not consistent.

'We can't be sure yet what effect these drugs could have on a person's day-to-day life, and we don't know whether any benefits they provide would outweigh the risks.'

Like any medication, ADHD medicines can have side effects. The most common are loss of appetite and trouble sleeping.

Less common side effects include jitteriness, irritability, moodiness, headaches, stomachaches, fast heart rate, and high blood pressure