

## **ABC NEWS: Dementia patients could have their memory restored thanks to a landmark Queensland study**

By Brittney Kleyn

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Dementia patients could soon have their memory restored and symptoms of the disease reversed thanks to a landmark study in Queensland.

### **Key points**

- Researchers found a way to fully restore function in mice brains
- Researchers found they can blast away "toxic plaque" using "micro-bubbles and ultrasound
- \$10 million in federal funding will allow the method to be tested on patients

Researchers have found they can blast away the "toxic plaque" from the brain using non-invasive, non-toxic treatments and an ultrasound.

So far, scientists at the Queensland Brain Institute have been able to inject "micro bubbles" in the brains of mice which, when used with an ultrasound, fully restored their brain function.

Professor Jugen Gotz said the breakthrough was completely unexpected.

"Cognition was restored. So the mice were perfectly fine afterwards, which was a surprise to us, but obviously was extremely encouraging," he said.

\$10 million in federal funding, announced today, will allow the method to be tested on up to 10 patients in Brisbane who have early-onset dementia.

Professor Gotz said he believed the method would be most effective if the treatment started as early as possible.

"Ideally we would treat a patient at the pre-symptomatic stage and that's obviously where more funding is required to be able to achieve that," Professor Gotz said.

"Inevitably there is a point of no return. So we want to treat as early as possible before all the damage has occurred.

"There is currently no cure for Alzheimer's disease, or any of the dementias."

Without a medical breakthrough, the number of Australians living with dementia is expected to increase to 1.1 million by 2056.

Professor Peter Hoj from the University of Queensland said urgent action, like the clinical trial, was critical.

"This funding will ensure we keep some of the world's brightest minds focused on finding a cure for dementia," he said.

Professor Gotz said researchers had shown the approach worked in sheep and mice, and the next step was to go into human participants and start with the "safety trial".

"The goal, long-term, is to come up with an affordable, portable device, which would help the millions of Alzheimer's patients in our country and worldwide," Professor Gotz said.

One of Australia's much-loved entertainers, Jeannie Little, was diagnosed with dementia 10 years ago.

Her daughter Katie Little wrote a book about her mother's decline with dementia and said Jeannie's condition had declined rapidly.

"It really went undiagnosed I think for quite a while," Ms Little said.

"I started getting phone calls from people who were concerned about Mum because they'd seen her in her stage play and they were sort of saying, 'Is your mum OK because she's forgetting lines on stage?'

"I was there when Mum got diagnosed and I didn't know the implications ... she was hiding that she was very, very sick."

Dementia currently affects 400,000 patients in Australia and 40 million patients worldwide.