

Largest ever brain surgery trial yields positive results for people with Parkinson's

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New evidence that deep brain stimulation (DBS), a type of brain surgery to treat Parkinson's, can significantly improve quality of life for some people with the condition more than medication alone, is published in The Lancet Neurology today.

The findings come from a 10 year trial, co-ordinated by the University of Birmingham, which was funded by Parkinson's UK, the Medical Research Council and the Department of Health. It is the largest trial of its kind in the world and involved some of the UK's top neurosurgeons and consultant neurologists.

The trial compared the effects of DBS with the best drug therapy in 366 people with advanced Parkinson's who were considered suitable for surgery. They were divided into two groups of those who received immediate surgery and medical therapy, and those who received just medication for a year.

After 12 months follow-up the researchers found:

The surgery improves quality of life and motor function in patients with advanced Parkinson's.

On average, the people who had DBS found that their symptoms improved, while those who received medication alone stayed the same.

The people who had DBS needed about a third (34 per cent) less medication, to control their symptoms than those who didn't have the surgery.

In deep brain stimulation signals from an electrical implant in the brain help reduce Parkinson's symptoms, such as tremor and stiffness. This type of brain surgery can be an effective treatment option for up to 5 per cent of people with Parkinson's, in particular those whose symptoms are no longer adequately controlled by medication, and who have particular unwanted side effects. As with any major surgery, there is a risk of serious adverse events, so it is not suitable for everyone.

Professor Keith Wheatley from the University of Birmingham explains: "This trial demonstrates a clear treatment benefit from surgery over the best available drug therapies after one year.

"The progress of the people in the trial will be followed for another five years. We will be looking at the long term effects of DBS, neuropsychological effects of surgery and the economics of using DBS therapy in the NHS. We will further examine the findings to identify who is most likely to benefit from DBS in the future."

Dr Kieran Breen, Director of Research and Development at Parkinson's UK, said: "It's clear from these results that deep brain stimulation works and for the majority of people with Parkinson's who are suitable, it's certainly more effective than medication alone. So for these people, it should be available when they need it.

"However, access to DBS for people with Parkinson's is patchy – there's still a postcode lottery in the UK when it comes to accessing Parkinson's services. We want to make sure that everyone with Parkinson's has equal access to the care and support they need, wherever they live."

Carol Pearl, 64, from London, has had Parkinson's for nine years. She was devastated when she was diagnosed at 55, as Carol had nursed her mother through Parkinson's and knew first hand how it could affect her quality of life.

Carol had DBS in January last year, because she experienced awful side effects from the Parkinson's medication, like dyskinesia (involuntary movements), faintness and sickness. The operation took five hours under local anaesthetic.

She says that DBS has transformed her life. Her symptoms are well under control, which means she can enjoy her hobbies again - dancing, aerobics, travelling, and her seven grandchildren.

Ends

1Total sample size was 2,067 adults. Fieldwork was undertaken between 23 - 25 March 2010 by YouGov. The survey was carried out online. The figures are representative of all UK adults (aged 18+).

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Notes to editors

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Parkinson's UK is the new name for the Parkinson's Disease Society.

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