

[About the versions](#) | [Low graphics](#) | [Help](#) | [Contact us](#)

Last Updated: Tuesday, 18 January, 2005, 05:47 GMT

[E-mail this to a friend](#)

[Printable version](#)

[News Front Page](#)

[World](#)

[UK](#)

[England](#)

[Northern Ireland](#)

[Scotland](#)

[Wales](#)

[Business](#)

[Politics](#)

[Health](#)

[Medical notes](#)

[Education](#)

[Science/Nature](#)

[Technology](#)

[Entertainment](#)

[Have Your Say](#)

[Magazine](#)

[In Pictures](#)

[Week at a Glance](#)

[Country Profiles](#)

[In Depth](#)

[Programmes](#)

[BBC SPORT](#)

[BBC WEATHER](#)

[BBC NEWS](#)

[On This Day](#)

[NEWSWATCH](#)

Target found for Parkinson's test

A gene mutation which could be behind one in 25 cases of Parkinson's disease has been discovered by scientists.

It is hoped the findings could lead to the earlier detection of the disease and the development of treatments.



Three separate studies by US, UK and Dutch research teams are published in The Lancet medical journal.

Parkinson's, for which there is no cure, is a degenerative disease in the part of the brain controlling movement and affects 3% of people over 75.

'Dardarin' protein

Each of the three studies looked at genetic faults in the LRRK2 gene.

It controls the action of a protein named dardarin by researchers, after the Basque word dardara, which means tremor. Scientists do not yet fully understand what the protein's intended function is.

The mutation of the gene, found on a region of chromosome 12, is called PARK8.

It was identified in a study of five families with a history of Parkinson's disease who lived in the Basque region of northern Spain, and in England

The US study, by scientists from Indiana University and Cincinnati Children's Hospital, involved 767 Parkinson's disease patients from 358 families across America.

It was found that 34, or just under 5%, of patients carried the same gene mutation.

SEE ALSO:

- [Parkinson's Disease gene is found](#)
15 Apr 04 | Health
- [Gene therapy for Parkinson's](#)
10 Oct 02 | Health
- [Hope of Parkinson's 'cure'](#)
27 Oct 00 | Health

RELATED INTERNET LINKS:

- [The Lancet](#)
- [Parkinson's Disease Society](#)
- [National Institute of Aging](#)
- [Indiana University](#)
- [Cincinnati Children's Hospital](#)

The BBC is not responsible for the content of external internet sites

TOP HEALTH STORIES NOW

- [Face of woman braves media glare](#)
- [Drug refusal 'a death sentence'](#)
- ['Hit squads' to help tackle MRSA](#)
- [UK pledges £3m for safe abortions](#)

[RSS](#)

| [What is RSS?](#)

“ This could lead to new improved treatments and potentially a cure for some people with the condition ”

Linda Kelly, Parkinson's Disease Society

In an Institute of Neurology study, 482 people from families without a known history of Parkinson's were studied and eight were found to have the same mutation.

In the third study, by researchers from Erasmus MC in the Netherlands, the mutation was present in four out of 61 families with a history of Parkinson's disease.

From the results of all three studies the researchers concluded that the mutation appears to be responsible for up to 5% of Parkinson's in people with a family history of the disorder and up to 2% of cases in people who do not have a family history of the disease.

'New treatments'

Andrew Singleton, of the National Institute of Aging's said: "Knowing that this mutation is not only important in familial forms of disease, but in typical sporadic disease, where there is no strong family history, could lead to earlier detection of Parkinson's disease.

"Further study of how this gene works also might help scientists identify new treatments."

Dr William Nichols, of the Cincinnati Children's Hospital suggested screening for the mutation would soon become a key part of genetic testing for Parkinson's.

And Linda Kelly, the chief executive of the UK's Parkinson's Disease Society, said: "If further research could uncover why this leads to neurodegeneration and the symptoms of Parkinson's then this could lead to new improved treatments and potentially a cure for some people with the condition."

 [E-mail this to a friend](#)

 [Printable version](#)

LINKS TO MORE HEALTH STORIES

[News Alerts](#) [E-mail services](#) [Mobiles/PDAs](#) [Headlines for your site](#)

[Help](#) [Privacy and Cookies Policy](#) [News sources](#) [About the BBC](#) [Contact us](#)

[News Front Page](#) | [World](#) | [UK](#) | [England](#) | [Northern Ireland](#) | [Scotland](#) | [Wales](#) | [Politics](#)
[Business](#) | [Entertainment](#) | [Science/Nature](#) | [Technology](#) | [Health](#) | [Education](#)

[Have Your Say](#) | [Magazine](#) | [In Pictures](#) | [Week at a Glance](#) | [Country Profiles](#) | [In Depth](#) | [Programmes](#)