

## Loneliness link with Alzheimer's

**People who are lonely are twice as likely to develop Alzheimer's disease, a large US study has suggested.**

The findings come from a study of more than 800 elderly patients, who were followed over a four-year period.



Social isolation has already been shown to be linked to dementia but this is the first time researchers have looked at how alone people actually felt.

Writing in Archives of General Psychiatry, the researchers said the reason for the link was not yet clear.

Study leader Professor Robert Wilson and colleagues assessed participants loneliness by asking people to rate from one to five whether they agreed with certain statements related to loneliness on an annual basis.

Questions posed to those being studied included "I experience a general sense of emptiness" and "I often feel abandoned". People in the study were also assessed for signs of dementia and Alzheimer's disease.

**“ We need to be aware that loneliness doesn't just have an emotional impact but a physical impact ”**

Professor Robert Wilson

And autopsies were carried out on 90 patients who died during the study to look for certain physical signs associated with Alzheimer's disease such as deposits of protein outside and around nerve cells.

The team found that the risk of developing Alzheimer's disease increased by 51% for each point of the loneliness score.

Those with the highest loneliness score of 3.2 had about 2.1 times the risk of developing Alzheimer's disease compared to those with a low score of 1.4.

When the researchers factored in social isolation, such as if people had a small social network, the results did not change significantly.

However there was no association between loneliness and the brain pathology associated with Alzheimer's disease.

### Physical impact

Professor Wilson, professor of neuropsychology at Rush University Medical Centre said: "There are two ideas that we should take away, number one is it suggests that loneliness really is a risk factor and secondly in trying to understand that association we need to look outside the typical neuropathology."

He said the results ruled out the possibility that loneliness is a reaction to dementia.

It may be that loneliness may affect systems in the brain dealing with cognition and memory, making lonely people more vulnerable to effects of age-related decline in neural pathways, he suggested.

"We need to be aware that loneliness doesn't just have an emotional impact but a physical impact," he said.

Rebecca Wood chief executive of the Alzheimer's Research Trust said: "This is an impressive study. It follows a large group of people for a significant period of time and comes up with startling findings that back up earlier studies examining social interaction and Alzheimer's risk.

"What I find particularly interesting about this study is the fact that it is an individual's perception of being lonely rather than their actual degree of social isolation that seems to correlate most closely with their Alzheimer's risk."

Dr Susan Sorensen, head of research at the Alzheimer's Society agreed: "The study demonstrates a clear link between less social activity and a higher risk of dementia symptoms.

"However, it is interesting that the people who died during the study and had demonstrated symptoms of dementia did not have relatively more physical signs of Alzheimer's disease in the brain.

"More research is needed to understand the exact link between loneliness and dementia symptoms."