

Coffee 'May Reverse Alzheimer's'

Drinking five cups of coffee a day could reverse memory problems seen in Alzheimer's disease.

The Florida research, carried out on mice, also suggested caffeine hampered the production of the protein plaques which are the hallmark of the disease.

Previous research has also suggested a protective effect from caffeine.

But British experts said the Journal of Alzheimer's disease study did not mean that dementia patients should start using caffeine supplements.

The 55 mice used in the University of Florida study had been bred to develop symptoms of Alzheimer's disease.

First the researchers used behavioural tests to confirm the mice were exhibiting signs of memory impairment when they were aged 18 to 19 months, the equivalent to humans being about 70.

Then they gave half the mice caffeine in their drinking water. The rest were given plain water.

The mice were given the equivalent of five 8 oz (227 grams) cups of coffee a day - about 500 milligrams of caffeine.

The researchers say this is the same as is found in two cups of "specialty" coffees such as lattes or cappuccinos from coffee shops, 14 cups of tea, or 20 soft drinks.

When the mice were tested again after two months, those who were given the caffeine performed much better on tests measuring their memory and thinking skills and performed as well as mice of the same age without dementia.

Those drinking plain water continued to do poorly on the tests.

In addition, the brains of the mice given caffeine showed nearly a 50% reduction in levels of the beta amyloid protein, which forms destructive clumps in the brains of dementia patients.

Further tests suggested caffeine affects the production of both the enzymes needed to produce beta amyloid.

The researchers also suggest that caffeine suppresses inflammatory changes in the brain that lead to an overabundance of the protein.

Earlier research by the same team had shown younger mice, who had also been bred to develop Alzheimer's but who were given caffeine in their early adulthood, were protected against the onset of memory problems.

'Safe drug'

Dr Gary Arendash, who led the latest study, told the BBC: "The results are particularly exciting in that a reversal of pre-existing memory impairment is more difficult to achieve.

"They provide evidence that caffeine could be a viable 'treatment' for established Alzheimer's disease and not simply a protective strategy.

"That's important because caffeine is a safe drug for most people, it easily enters the brain, and it appears to directly affect the disease process."

The team now hope to begin human trials of caffeine to see if the mouse findings are replicated in people.

They do not know if a lower amount of caffeine would be as effective, but said most people could safely consume the 500 milligrams per day.

However they said people with high blood pressure, and pregnant women, should limit their daily caffeine intake.

Rebecca Wood, chief executive of the Alzheimer's Research Trust, said: "In this study on mice with symptoms of Alzheimer's, researchers found that caffeine boosted their memory. We need to do more research to find out whether this effect will be seen in people.

"It is too early to say whether drinking coffee or taking caffeine supplements will help people with Alzheimer's. BBC