

Faults in the blood-brain barrier implicated in dementia

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California based researchers have found that damage to cells known as pericytes, which surround small blood vessels in the brain, may trigger a chain of events that results in brain degeneration. The findings are published today in the scientific publication *Nature Medicine*.

Dr. Carol Routledge, Director of Research at Alzheimer's Research UK, said:

"It is vital that the brain maintains a good blood supply to support its myriad of important functions. Changes to blood vessels in the brain is a feature of the diseases that cause dementia, but we don't fully understand the detail of these processes and how they impact [brain health](#).

"This research in mice found that the collapse of cells guarding the smallest [blood vessels](#) in the brain may cause the important barrier between the blood and the brain to breakdown and give rise to [brain](#) changes similar to those seen in people who are developing dementia. This process appears to be triggered by a protein in the [blood](#) called fibrinogen.

"These gatekeeper cells may represent an important target for future treatments but as with any research in mice, we will need to see how well this work translates to humans. Continued investment into research is the only way to follow up on interesting new findings like these and investigate how we can best combat diseases that cause dementia."

Provided by Alzheimer's Research UK

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