

Neck scan reveals risk of dementia

Kat Lay, Health Correspondent

November 12 2018, 12:01am, The Times



The neck scan may become part of dementia screening YUI MOK/PA

A five-minute neck scan can predict which people are at greater risk of developing [dementia](#) a decade before symptoms appear, a study has shown.

The test, which measures the strength of the pulse reaching the brain, may become part of dementia screening.

A trial headed by University College London researchers found that those with the strongest pulses reaching the brain, and potentially damaging delicate blood vessels there, were most likely to show signs of cognitive decline ten years later.

Experts said that the findings bolstered calls for people to take action to reduce their dementia risk by staying active, eating healthily, stopping smoking and keeping cholesterol in check. All measures are thought “to boost the health of both the heart and the brain”.

In young, healthy adults elastic blood vessels near the heart act as cushions and reduce the intensity of the pulse reaching delicate blood vessels elsewhere in the body. If they become stiffer, which can happen because of ageing or high blood pressure, a progressively stronger pulse travels further into the brain. Over time

this can damage the fragile vessels there or change their structure and cause mini strokes. This is believed to contribute to dementia.

The results of the trial, involving 3,191 middle-aged volunteers, were presented at the AHA Scientific Sessions conference in Chicago. They underwent an ultrasound scan in 2002 to measure the intensity of the pulse travelling towards their brains and then had their memories and problem-solving abilities monitored for 15 years. The quarter of participants with the highest-intensity pulse measurements were about 50 per cent more likely to exhibit “accelerated cognitive decline” over the next decade compared with the rest of the group.

Researchers said that it was the first evidence of a direct link between pulse intensity and future impairments in cognitive function. Cognitive decline, a measurable reduction in abilities involving memory, language, thinking and judgment skills, is often one of the first signs of dementia. Not everyone with signs of cognitive decline, however, will go on to develop dementia.

The research team will now investigate whether adding information from the tests into [current dementia screening tools](#) makes them more accurate.

Alistair Burns, national director for dementia at NHS England, said that the results looked promising.

There are about 850,000 people with dementia in the UK and the number is predicted to top one million by 2025.

Carol Routledge, director of research at Alzheimer’s Research UK, said: “Disruption to the normal flow of blood to the brain is the direct cause of vascular dementia and changes to blood supply also play a role in the development of Alzheimer’s disease.”