

# Apathy common in dementia patients with brain changes

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Dementia patients with a certain type of changes in their brain's white matter are more likely to be apathetic than those who do not have these changes, reveals a patient study carried out by the Sahlgrenska Academy and Sahlgrenska University Hospital.

Changes in the brain's white matter are common among the elderly and dementia patients, and often appear as blurred patches on CT and MRI images.

"A likely explanation for the changes is that the small blood vessels that supply the white matter are not working as they should," says Michael Jonsson, PhD-student at the Sahlgrenska Academy and consultant psychiatrist at Sahlgrenska University Hospital's memory clinic. "This results in that the long [nerve fibres](#) and their fatty sheaths degenerate."

Apathy is one of the most common [psychological problems](#) associated with dementia. Just over half of all dementia patients are emotionally blunted and lack motivation and initiative. This new study shows that this apathy is far more common in patients who have the characteristic changes in the brain. This discovery suggests that there is a common biological reason behind this apathy, irrespective of which type of dementia a patient has. The changes are located deep in the brain and primarily affect the neural pathways that run from this part of the brain to the frontal lobes, which are important for taking the initiative and the ability to plan.

"Even though we think we know a bit about which pathways are affected in cases of apathy, we still need to find out more about the anatomy and chemistry behind the development of these symptoms," says Jonsson.

"This is vital if we are to develop medication to treat apathy."

The study involved 176 patients with Alzheimer's, [vascular dementia](#) or mixed dementia. 82 per cent of the patients with changes in their white matter were apathetic, while 58 per cent of all of the dementia patients were apathetic.

Given that apathy reduces quality of life for patients with dementia and increases the risk of institutionalisation, a great deal of research is under way to find a treatment. Treatments that do not involve medication, such as increased physical exercise, cognitive stimulation and massage, do not seem to work.

"Some studies have shown that the medicines currently used for Alzheimer's can have a positive impact on apathy in other types of dementia too," says Jonsson. "Other medicines may also be of interest, but we need to carry out more research in this area."

More information: *International Journal of Geriatric Psychiatry*, Apathy is a prominent neuropsychiatric feature of radiological [white-matter](#) changes in patients with [dementia](#), M Jonsson, L Edman, K Lind, S Rolstad, M Sjögren and A Wallin; *Int J Geriatr Psychiatry*, 22 Oct 2009 [Epub ahead of print]

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