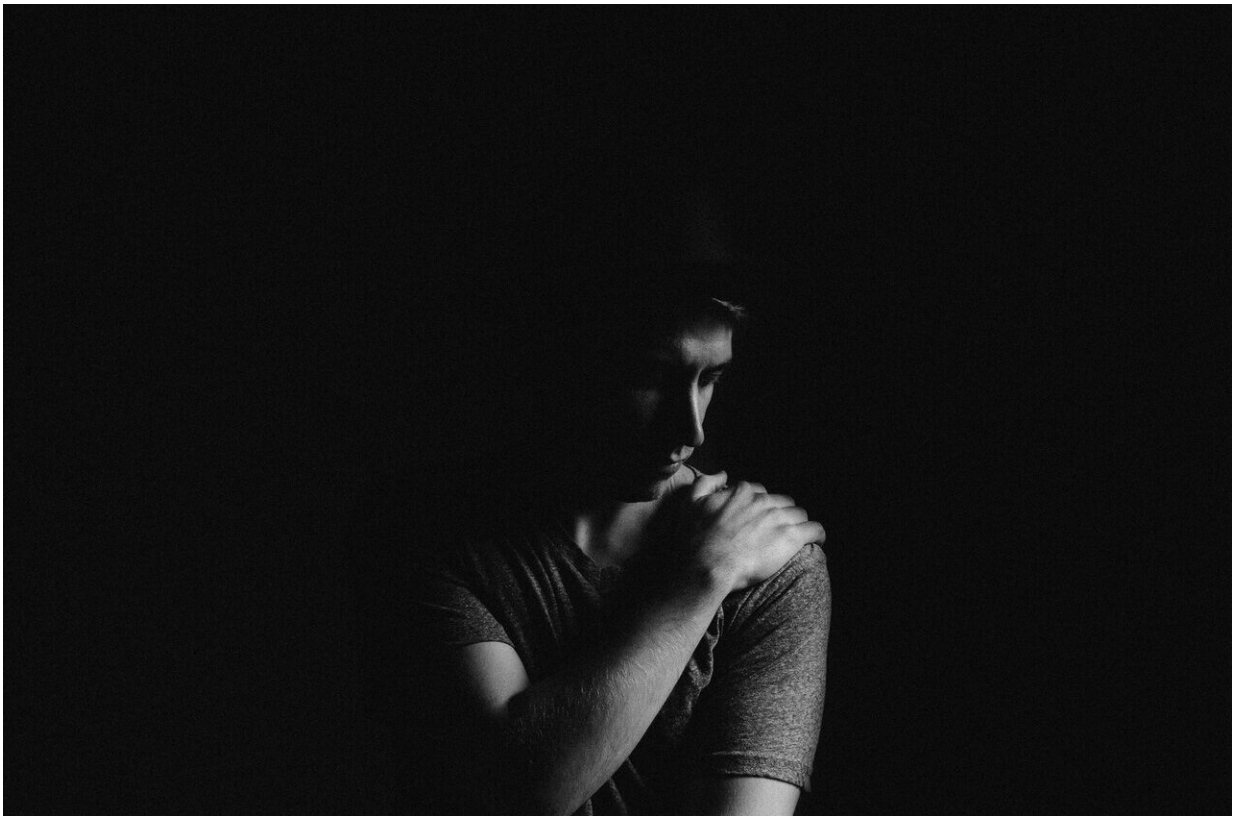


Widespread pain linked to heightened dementia and stroke risk

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Widespread pain is linked to a heightened risk of all types of dementia, including Alzheimer's disease, and stroke, finds research published online in the journal *Regional Anesthesia & Pain Medicine*.

And this association is independent of potentially influential factors, such as age, [general health](#), and lifestyle, the findings indicate.

Widespread pain is a common subtype of chronic pain that may reflect musculoskeletal disorders. Several studies suggest that it can reliably predict cancer, peripheral arterial disease, and [cardiovascular disease](#), and it has been linked to a heightened risk of death.

While [chronic pain](#) may be an early indicator of cognitive decline, it's not clear if widespread pain might also be linked to a heightened risk of [dementia](#) and stroke.

To try and find out, the researchers drew on data from 2464 second generation participants of the US long term, multigenerational, community-based Framingham Heart Study, known as the Offspring Study.

Participants were given a comprehensive check-up, which included a [physical exam](#), lab tests, and detailed pain assessments between 1990 and 1994.

They were divided into three pain groups: widespread pain—defined according to American College of Rheumatology criteria as pain above and below the waist, on both sides of the body, the skull, backbone and ribs (347 people; 14%); other pain—classified as pain in one or more joint(s) only or no pain in any joints (2117 people in total).

Information on potentially influential factors was also collected. This included evidence of high blood pressure and diabetes; weight (BMI); lifestyle (smoking, drinking, diet, physical activity levels); employment status; depression scores; history of pain medication; income, marital status and educational attainment.

Participants were then continuously monitored for the beginnings of cognitive decline and clinical dementia (average of 10 years) or a first stroke (average of 15 years).

During the monitoring period, 188 people were diagnosed with some form of dementia, 50 (27%) of whom had widespread pain and 138 (73%) of whom didn't. And 139 people had a stroke, 31 (22%) of whom had widespread pain and 108 (78%) of whom didn't.

After taking account of potentially influential factors, people with widespread pain were 43% more likely to have any type of dementia, 47% more likely to have Alzheimer's disease, and 29% more likely to have a stroke than those without widespread pain.

When only the over 65s were included, these risks were comparable: 39% heightened risk of all types of dementia; 48% heightened risk of Alzheimer's disease; and 54% heightened risk of stroke.

This is an observational study, and as such, can't establish cause. The actual numbers of dementia and stroke cases were small, while the relationship between pain and cognitive decline is likely to be multifactorial, the researchers caution.

Nevertheless they conclude: "These findings provide convincing evidence that [widespread pain] may be a risk factor for all-cause dementia, [Alzheimer's disease], and [stroke](#). This increased risk is independent of age, sex, multiple sociodemographic factors, and [health status](#) and behaviors."

Widespread [pain](#) might directly affect cognitive function or it might be part of a prodromal phase of dementia and Alzheimer's disease, they suggest by way of an explanation for their findings, adding that further larger studies are needed to explore these possibilities.

More information: Association between widespread pain and dementia, Alzheimer's disease and stroke: a cohort study from the Framingham Heart Study, *Regional Anesthesia & Pain Medicine*, [DOI: 10.1136/6/rapm-2021-102733](https://doi.org/10.1136/6/rapm-2021-102733)

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