

# Lifelong marriage lowers risk of dementia, suggest large study

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If you are married continuously for many years in midlife, you have a lower risk of developing dementia in old age, according to a recently published study based on data from HUNT Study health surveys in Nord-

Trøndelag.

"Being married can have an influence on [risk factors](#) for dementia," says Vegard Skirbekk at the Norwegian Institute of Public Health (NIPH/FHI).

The researchers looked at different types of marital status in people over a period of 24 years—from the age of 44 until 68—and investigated whether this status was related to a clinical diagnosis of dementia or [mild cognitive impairment](#) (MCI) after the age of 70.

The results show that the group that was continuously married throughout the period had the lowest incidence of dementia.

The highest incidence was found in divorced and single people.

## **Children reduce risk**

Asta Håberg is a doctor at St. Olav's Hospital and a professor at NTNU, as well as a researcher at NIPH/FHI. She says the results of the survey contained surprises.

"Exactly what causes dementia is a mystery. This survey indicates that being married and a lower risk of dementia are linked, but we don't know why," says Håberg.

"One theory has been that people who are married live healthier lives, and that this explains differences in the risk of various diseases. In this survey, we found no support for health differences between married and unmarried people explaining the difference in dementia risk."

In the HUNT survey, approximately 150,000 people living in Nord-Trøndelag have given consent for health information to be made

available for research. The researchers used this data to check the incidence of dementia against health factors such as smoking, [high blood pressure](#), obesity, physical inactivity, diabetes, psychological problems and having close friends.

"We thought that these factors would mean something, but they didn't explain anything," says Håberg.

However, the researchers found that having children had significance and reduced the risk of dementia by 60% among the unmarried people in the study.

"Some people have theorized that if you have children, you stay more cognitively engaged. For example, you have to deal with people and participate in activities that you wouldn't otherwise have to. This stimulates your brain so that it possibly works better. That way you build up a kind of cognitive reserve," says Håberg.

## **Still a lot of unused data**

This "reserve" in the brain is not structural. It doesn't show up on an MRI scan or by opening the brain and looking inside. It is part of the "mystery of dementia." But Håberg hopes to be able to uncover some of the mystery through this study.

"We don't know whether it's being married or having children that protects against dementia, or if it's a case of pre-selection, for example. This would mean that people who have a lower probability of developing dementia also have a higher probability of finding a partner and having children. But the fact that we have the HUNT Study means that we have a lot of data available that we haven't yet used to investigate this further," Håberg says.

As a doctor, she is not convinced that dementia is an inevitable consequence of aging.

"It's common to think that 'if you live long enough, sooner or later you'll develop dementia.' I'm not so sure I agree with that, given this theory that we may have cognitive reserves."

It could be that certain conditions might help to build up such reserves, which means that you start with more connections in the brain. For example, we've observed that education is a factor, and that the more education you have, the better the "reserves" that you build up.

And yet, when a highly educated person gets Alzheimer's, the disease progresses just as quickly as for anyone else. The reserves thus have a delaying effect—but only until the disease strikes.

## **Make it easier to have children**

The study results are part of the research project REFAWOR (Cognitive reserve work and family) funded by the NIH in the U.S., which is part of the program "Changing lives, changing brains" under the auspices of the Norwegian Institute of Public Health.

REFAWOR has a budget of almost three million euros and aims to study how changes in living and working conditions affect the risk of Alzheimer's, dementia and cognitive impairment in older people. These diseases are expected to triple by 2050.

The researchers are now taking a closer look at the significance of having children for dementia risk, the types of work people have and how retirement age can affect the risk.

Dementia is a collective term for various diseases and injuries in the

brain. Memory weakens, and the ability to think logically is affected. Eventually it becomes difficult to manage on your own and carry out everyday activities. No medical treatment for dementia is currently available.

"We've dreamt of finding a medicine for dementia for a long time, but we haven't yet succeeded. So we're looking at social determinants. What can society do to reduce the risk? The state could facilitate having children, for example," says Håberg.

## **Genes can make us more susceptible**

One of the next steps is to look at genetic connections, says Skirbekk.

"We know that certain genes increase the risk of dementia, but people with these genes can still live to be 90 years old without experiencing cognitive problems," he says.

"You could say that the increased risk inherent in the genes can be regarded as a vulnerability, where having a stable family life might possibly reduce this vulnerability.

He emphasizes that this study says nothing about the biological mechanisms behind [dementia](#).

"But it shows that being married can have an influence on risk factors. You become more cognitively active, you cope better with adversity and are less subject to stress. The partner represents a security that provides a buffer."

The work is published in the *Journal of Aging and Health*.

The study does not consider whether any difference exists between being

an unmarried versus a [married couple](#). Less than one percent of unmarried people in the survey were cohabiting with a partner.

"There are very few cohabitants in this age group in HUNT," says Håberg.

**More information:** Vegard Skirbekk et al, Marital Histories and Associations With Later-Life Dementia and Mild Cognitive Impairment Risk in the HUNT4 70+ Study in Norway, *Journal of Aging and Health* (2022). [DOI: 10.1177/08982643221131926](https://doi.org/10.1177/08982643221131926)

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