## High red cell count also linked to dementia

There is a 22% increased risk of Alzheimer's for people in the haemoglobin category

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Anaemia has been linked with dementia previously but a new study shows that high, as well as low, levels of haemoglobin appear to increase risk.



The large, population-based Dutch study is one of the few to investigate dementia risk across the spectrum of haemoglobin levels, revealing a U-shaped pattern.

"High haemoglobin may be deleterious, or reflect deleterious circumstances," the researchers said.

They used data on more than 12,000 people without dementia aged 55 and over, and followed them for an average of 12 years.

More than 1500 developed dementia. Six per cent of the cohort was anaemic, and this was associated with a 34% increased risk of any dementia and a 41% increased risk of Alzheimer's disease.

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For people in the highest haemoglobin category (more than 9.4mmol/L), there was a 20% increase in all-cause dementia risk and a 22% increase in Alzheimer's risk.

This association held even when excluding people who might have had other illnesses that raised their levels.

Dr Rowena Mobbs, a clinical lecturer at the University of Sydney and cognitive neurologist, said while it could be easy to disregard near-normal readings, the findings suggested a prudent approach might be to investigate causes and monitor these patients.

"For high haemoglobin, there may be a viscosity syndrome contributing, or excess of free iron due to lysis of erythrocytes," Dr Mobbs said.

"A comprehensive cognitive screen for those with suspected memory impairment might incorporate more extensive consideration of haemoglobin and iron studies."

## More information: Neurology 2019