

# Anemic adults may have a higher risk of death after stroke

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Anemia, a lack of red blood cells, may be linked to a higher risk of death in older adults who have had a stroke, according to new research in *Journal of the American Heart Association*, the Open Access Journal of the American Heart Association/American Stroke Association.

Anemia is common in patients with acute [stroke](#). Both anemia and low [hemoglobin levels](#), which are proteins in [red blood cells](#) that carry oxygen throughout the body, are also common in older people, said Phyo Myint, M.D., senior study author and Professor of Medicine of Old Age at the University of Aberdeen in Scotland.

Researchers examined data from 8,013 hospital patients, average age 77, admitted with [acute stroke](#) between 2003 and 2015. Researchers assessed the impact of anemia and hemoglobin levels on death at different time points up to one year following stroke.

Researchers found that anemia was present in about a quarter of patients with stroke upon admission and was associated with a higher risk of death for up to one year following either [ischemic stroke](#) (clotted blood vessel) or [hemorrhagic stroke](#) (ruptured blood vessel).

Additionally, elevated hemoglobin levels were associated with poorer outcomes and a higher risk of death, mainly within the first month following stroke, meaning both low and high levels of hemoglobin could be associated with a higher risk of death after stroke.

"We found that the likelihood of dying from ischemic stroke is about two times higher in people with anemia compared to those without it, and the risk of death from hemorrhagic stroke is about 1.5 times higher," Myint said. "So there's the potential for a much poorer outcome if somebody comes in with stroke and they're also anemic."

In addition to the U.K. Regional Stroke Registry, researchers systematically reviewed relevant literature published to date. They used 20 previous studies to conduct one larger study by compiling data from a wide range of countries, increasing the study population to 29,943 stroke patients. This better quantified the impact of anemia and increased the generalizability of the study findings, researchers said.

Researchers believe the study emphasizes the impact of anemia on stroke outcomes and the need for increased awareness and interventions for [stroke patients](#) with anemia.

"One example of an intervention might be treating the underlying causes of anemia, such as iron deficiency, which is common in this age group," said Raphael Barlas, co-author and medical student at the University of Aberdeen, who carried out the project as a summer research program scholarship recipient. "As the study has convincingly demonstrated, [anemia](#) does worsen the outcome of stroke, so it is very important that we identify at-risk patients and optimize the management."

Provided by American Heart Association

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