

The results of a large prospective study show that women with a higher intake of magnesium, potassium and calcium have a lower risk of stroke.

Higher intakes of potassium, magnesium and calcium are related to lower stroke risk

Calcium, potassium and magnesium are the 3 most abundant minerals in the body. Each play roles in the health of the cardiovascular system. Although studies have shown these minerals to have benefits related to cardiovascular health, information on the relation of magnesium, potassium and calcium with stroke risk have been inconsistent. These minerals are often found together in foods, and their intakes are strongly correlated.

In a new study published in the *American Journal of Clinical Nutrition*, researchers examined the associations between intakes of magnesium, potassium and calcium with stroke risk in a large population of women. The participants included 180,864 women that were participants in two studies, the Nurses Health Study and Nurses Health Study 2 (NHS and NHS 2). Follow-up in the NHS was 30 years, and 22 years for the NHS 2. Food frequency questionnaires were used to document intake of each mineral and a combination of the 3 from both dietary and supplemental sources.

During the follow-up period, a total of 3,780 stroke cases were documented. Compared to the women in the lowest 20% of magnesium intake the women with the highest 20% of intake had a 13% lower risk of stroke. Women with the highest potassium intake had an 11% lower risk of stroke. Women with the highest combined mineral score had a 28% reduced risk of stroke. Based on an updated meta-analysis of all prospective studies to date, the risk of stroke was reduced 13% for each 100 mg/day increase in magnesium intake. For each 1,000 mg/day increase in potassium intake there was a 9% reduction in stroke risk. Calcium intake was not independently associated with stroke risk.

The results of this study show that both magnesium and potassium intakes are inversely associated with stroke risk, and that women with a higher intake of the combination of magnesium, potassium and calcium have a significantly lower risk of total stroke.

Sally N Adebamowo, Donna Spiegelman, Walter C Willett, and Kathryn M Rexrode. Association between intakes of magnesium, potassium, and calcium and risk of stroke: 2 cohorts of US women and updated meta-analyses. *Am J Clin Nutr* June 2015 vol. 101 no. 6 1269-1277