

Appendix IV. New and Old Studies showing Low Mg status (hypomagnesemia) is associated with stroke and sudden cardiac death

Low serum Mg is a risk factor for sudden cardiac death, and low Mg intake is a risk factor for stroke.

[For Highlighted Abstracts for the following references click here "Abstracts document" for Appendix IV.](#)

Earlier work of the 1990s:

- Gartside P S and Glueck C J 1995 The important role of modifiable dietary and behavioral characteristics in the causation and prevention of coronary heart disease hospitalization and mortality: the prospective NHANES I follow-up study. *J Am Coll Nutr* 14, 71-79. Hanes I study with 10 yr follow-up
- Ford E S 1999 Serum magnesium and ischaemic heart disease: findings from a national sample of US adults. *Int J Epidemiol* 28, 645-651. Hanes I with 19-yr follow-up
- Liao F, Folsom A R and Brancati F L 1998 Is low magnesium concentration a risk factor for coronary heart disease? The Atherosclerosis Risk in Communities (ARIC) Study. *Am Heart J* 136, 480-490.

Recent studies that confirm the earlier work:

- Leone N, Courbon D, Ducimetiere P and Zureik M 2006 Zinc, copper, and magnesium and risks for all-cause, cancer, and cardiovascular mortality. *Epidemiology* 17, 308-314.
- Peacock J M, Ohira T, Post W, Sotoodehnia N, Rosamond W and Folsom A R 2010 Serum magnesium and risk of sudden cardiac death in the Atherosclerosis Risk in Communities (ARIC) Study. *Am Heart J* 160, 464-470.
- Chiuvè S E, Korngold E C, Januzzi J L, Jr., Gantzer M L and Albert C M 2011 Plasma and dietary magnesium and risk of sudden cardiac death in women. *Am J Clin Nutr* 93, 253-260.
- Khan A M, Sullivan L, McCabe E, Levy D, Vasan R S and Wang T J 2010 Lack of association between serum magnesium and the risks of hypertension and cardiovascular disease. *Am Heart J* 160, 715-720. [See abstract for comment on these "negative" results that appear contrary to other studies' results.](#)
- Curiel-Garcia J A, Rodriguez-Moran M and Guerrero-Romero F 2008 Hypomagnesemia and mortality in patients with type 2 diabetes. *Magnes Res* 21, 163-166.
- May Khan A, Lubitz S A, Sullivan L M, Sun J X, Levy D, Vasan R S, Magnani J W, Ellinor P T, Benjamin E J and Wang T J 2012 Low Serum Magnesium and the Development of Atrial Fibrillation in the Community: The Framingham Heart Study. *Circulation*. [See abstract for comment on degree of association concluded in this paper.](#)

And for stroke:

- Nie Z L, Wang Z M, Zhou B, Tang Z P and Wang S K 2012 Magnesium intake and incidence of stroke: Meta-analysis of cohort studies. *Nutr Metab Cardiovasc Dis*.
- Larsson S C, Orsini N and Wolk A 2012 Dietary magnesium intake and risk of stroke: a meta-analysis of prospective studies. *Am J Clin Nutr* 95, 362-366.

Singh, H., et al. (2012). "Role of magnesium sulfate in neuroprotection in acute ischemic stroke." [Ann Indian Acad Neurol 15\(3\): 177-180.](#)
[See abstract for comment on these "negative" results that appear contrary to other studies' results.](#)