

# Two blood pressure drugs linked to lower risk of heart disease in diabetics

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Two drugs, telmisartan and valsartan, which are used to reduce blood pressure in people with diabetes, are associated with a lower risk of hospitalization for heart attack, stroke or heart failure, according to a study published in *CMAJ* (*Canadian Medical Association Journal*).

For people with [type 2 diabetes](#), disease-related vascular illnesses are the main causes of death. Angiotensin-receptor blockers including telmisartan, valsartan, [candesartan](#), irbesartan and losartan, are generally used interchangeably to control blood pressure. However, there is some evidence from small trials that telmisartan has slightly different properties than other angiotensin-receptor blockers and may improve cardiovascular health.

Researchers looked at data for 54 186 Ontario residents with diabetes who were over age 65 who took angiotensin-receptor blockers between Apr. 1, 2001 and Mar. 31, 2010. They sought to determine if there was a lower risk of [cardiovascular illnesses](#) in people taking telmisartan compared with other drugs in the same class. They found that telmisartan and valsartan were associated with a significantly lower risk of hospitalization for heart attack, stroke or [heart failure](#) compared with other angiotensin-receptor blockers.

"Our findings suggest that statistically important differences exist in the effectiveness of angiotensin-receptor blockers when used for the prevention of diabetes-related macrovascular disease, and that a class effect for these agents may not be assumed when used for this purpose in clinical practice," writes Dr. Tony Antoniou, Department of Family and Community Medicine, St. Michael's Hospital, Toronto, with coauthors.

"Although angiotensin-receptor blockers share common structural features, important pharmacologic differences exist between the drugs that may explain our results," the authors state.

"Specifically, at clinically attainable [serum concentrations](#), telmisartan is unique among these drugs in its ability to structurally interact with and activate the PPAR $\gamma$  receptor, a ligand-activated transcription factor that regulates lipid metabolism and insulin sensitivity."

The authors suggest that randomized controlled trials and large observational studies looking at cardiovascular health and deaths in patients taking different angiotensin-receptor blockers are needed.

**More information:** Paper:

[www.cmaj.ca/lookup/doi/10.1503/cmaj.121771](http://www.cmaj.ca/lookup/doi/10.1503/cmaj.121771)

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