

# Diabetes patients see better outcomes when blood pressure is lowered

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A recent study in *JAMA* analyzed the associations between treatments lowering blood pressure and their effects on patients with type 2 diabetes. Using data from 40 randomized trials, the study examined the connection between lowering blood pressure and vascular disease in patients with type 2 diabetes.

The study looked at 100,354 participants from the combined trials. Each trial was published between January 1966 and October 2014, and focused on lowering blood pressure among people with diabetes.

Although baseline blood pressure measurements varied among participants, the study collected enough data to determine a clear relationship between lowering blood pressure in people with type 2 diabetes and reducing their risk for microvascular and macrovascular health outcomes.

Study participants who reduced their systolic blood pressure by 10 mm HG lowered their risk for:

- Death (by about 13 percent)
- Cardiovascular events (by about 11 percent)
- Coronary heart disease events (by about 12 percent)
- Stroke (by about 27 percent)
- Retinopathy (by about 13 percent)
- Albuminuria (by about 17 percent)

Participants reduced their risks for these health outcomes by lowering their blood pressure from 140 mm Hg or greater to a systolic blood pressure range of 130 to 140 mm Hg. Those who further lowered their blood pressure to less than 130 mm Hg from a lower baseline of less than 140 mm Hg received greater reductions in their risk for stroke and albuminuria.

A *JAMA* editorial on the study acknowledges that these findings differ from current guideline recommendations.

“These treatment thresholds and targets might be too conservative” for some patients and physicians should interpret this study “in the context of the individual patients being treated,” according to the editorial.

By 2030, at least 400 million people worldwide will have type 2 diabetes and increased blood pressure is a well-established risk factor for people with diabetes, according to *JAMA*.

Addressing these health risks is the focus of the AMA’s Improving Health Outcomes initiative, which partners with doctors and patients to create new approaches in the treatment of hypertension and type 2 diabetes.

Through collaboration between the AMA and the Johns Hopkins Armstrong Institute for Patient Safety and Quality and the Johns Hopkins Center to Eliminate Cardiovascular Health Disparities, the initiative is conducting pilot programs at nine clinical sites in Illinois and Maryland where physicians are testing evidence-based recommendations for blood pressure control.

The AMA also is working with the YMCA of the USA to explore a process for physicians to screen patients for prediabetes, refer eligible patients to participate in the local YMCA Diabetes Prevention Program and receive feedback from the program to use in patients’ care plans.

The YMCA’s program is part of the CDC’s National Diabetes Prevention Program, which offers an evidence-based lifestyle change program that has been proven to help patients prevent or delay the onset of diabetes. Find a CDC program in your community.

Want to help your patients control their diabetes and blood pressure too?

Send information about your practice or organization to the AMA’s Improving Health Outcomes Initiative. Read the top three questions to ask your patients about blood pressure.