**Lowering Systolic BP in Patients With T1D**

HealthDay News — Lowering of plasma uric acid (PUA) with febuxostat (FBX) is associated with a modest reduction in systolic blood pressure (BP) in patients with type 1 diabetes (T1D), according to a study published online in *Diabetes*.

Yuliya Lytvyn, PhD, from the University of Toronto, and colleagues examined the impact of PUA lowering on renal and vascular function in 49 patients with uncomplicated T1D. Participants were assessed under eu- and hyperglycemic conditions at baseline and after PUA lowering with FBX for 8 weeks. Twenty-four healthy controls were assessed under normoglycemic conditions.

The researchers found that FBX had a modest impact in terms of lowering [systolic BP](https://www.endocrinologyadvisor.com/home/topics/cardiovascular-and-metabolic-disorders/widespread-increase-in-systolic-blood-pressure-from-1990-to-2015/) in patients with T1D (112±10 mm Hg to 109±9 mm Hg; *P* =.049), with no impact on arterial stiffness, flow and nitroglycerin mediated dilation, or urinary nitric oxide (NO). In patients with T1D, FBX enhanced the filtration fraction response to hyperglycemia through larger increases in efferent arteriolar resistance (RE) and glomerular hydrostatic pressure, with no impact on the renin angiotensin aldosterone system (RAAS).

“FBX lowered systolic BP and modulated the renal RE responses to hyperglycemia, but without impacting the RAAS or NO, suggesting that PUA may augment other hemodynamic or inflammatory mechanisms that control the renal response to hyperglycemia at the efferent arteriole,” the authors write. “Ongoing outcome trials will determine cardiorenal outcomes of PUA lowering in patients with T1D.”

*Takeda provided the study medications free of charge.*

**Reference**

Lytvyn Y, Har R, Locke A, et al. [Renal and vascular effects of uric acid lowering in normouricemic patients with uncomplicated type 1 diabetes](http://diabetes.diabetesjournals.org/content/early/2017/04/13/db17-0168) [published online April 13, 2017]. *Diabetes*. doi: 10.2337/db17-0168