

# Higher pulse wave velocity seen in well-controlled diabetes

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Pulse wave velocity is higher among patients with well-controlled type 2 diabetes when compared to controls, and is associated with white matter lesions, according to a study published online Nov. 5 in *Diabetes Care*.

(HealthDay)—Pulse wave velocity is higher among patients with well-controlled type 2 diabetes when compared to controls, and is associated with white matter lesions, according to a study published online Nov. 5 in *Diabetes Care*.

Esben Laugesen, M.D., from Aarhus University Hospital in Noerrebrogade, Denmark, and colleagues measured arterial stiffness with carotid-femoral pulse wave velocity and cerebral white matter lesions by [magnetic resonance imaging](#) (qualitatively graded by the Breteler scale) in 89 patients diagnosed with type 2 diabetes in the past five years and 89 matched controls. The authors note that arterial stiffness is associated with cardiovascular events and white matter lesions are associated with stroke.

The researchers found that the diabetes group had excellent glycemic control and had [lower blood pressure](#) and lower total cholesterol than controls. However, even after adjusting for confounding variables, including age, sex, diabetes, [body mass index](#), 24-hour mean arterial blood pressure, and medications, they had significantly higher carotid-femoral pulse wave velocity, which was significantly associated with Breteler score and

cerebral white matter lesion volume.

"Pulse wave velocity was higher among patients with well-controlled type 2 diabetes compared with controls and was independently associated with white matter lesions," Laugesen and colleagues conclude. "Pulsed wave velocity may represent a clinically relevant parameter in the evaluation of cerebrovascular disease risk in type 2 diabetes."

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**More information:** [Abstract](#)  
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