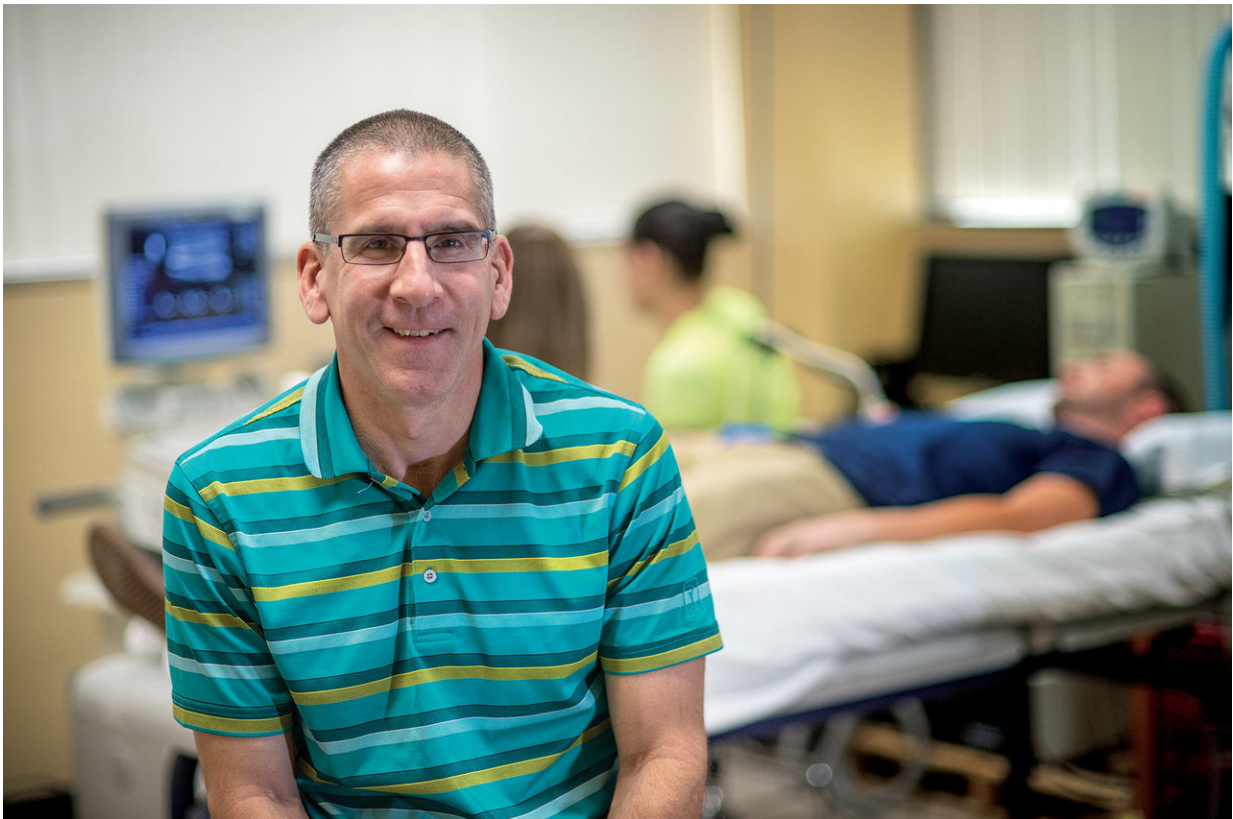


Young black men more susceptible to blood pressure spikes even at rest

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Paul Fadel, professor of kinesiology, associate dean for research and director of the Human Neural Cardiovascular Control Lab in UTA's College of Nursing and Health Innovation, was part of a study on blood pressure and its impact on black men. Credit: University of Texas at Arlington

Young, healthy black men exhibit greater increases in blood pressure

than white males following spontaneous changes in nervous system activity when at rest, according to a study by researchers at The University of Texas at Arlington's College of Nursing and Health Innovation.

The study investigated the part of the nervous system called the sympathetic nervous system, which helps regulate the body's unconscious actions and plays a key role in regulating resting [blood pressure](#).

The study, published last month in the journal *Hypertension*, provides potential insight into the higher prevalence of hypertension reported in [black men](#).

The study was conducted by a research team led by Jennifer Vranish, a postdoctoral research fellow in the college's Human Neural Cardiovascular Control Lab. Other researchers included Paul Fadel, a professor of kinesiology, the college's associate dean for research and director of the lab; David Keller, professor and chair of the Department of Kinesiology, and doctoral students Jordan Patik and Benjamin Young.

"It's common knowledge that black men are disproportionately at risk for [high blood pressure](#)," said Anne Bavier, dean of the College of Nursing and Health Innovation. "A study of this kind that utilizes healthy, young males significantly broadens our understanding of how this disease affects this population as well as the long-term implications."

Vranish said future studies may help researchers understand why blacks are more prone to high blood pressure and subsequent cardiovascular diseases.

"We know that blacks develop high blood pressure earlier in life and at greater severity than other races," Vranish said. "What we don't know is

why. We think this heightened [blood pressure](#) response to the sympathetic nervous system at rest might be one of several reasons they are more predisposed to cardiovascular risk later in life."

The researchers studied 35 young men of similar height, weight and [body mass index](#) who were non-smokers and had no history of neural, cardiovascular or respiratory disease. In all, 18 of the men were white and 17 were black.

The findings of the study highlight a potential source of future cardiovascular risk in blacks and provide some insight into how this population may develop hypertension later in life.

"We're not sure why these differences exist but some potential mechanisms include differences in vascular function and responsiveness," Vranish said.

Provided by University of Texas at Arlington

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