


# Study shows risk for younger adults with isolated systolic hypertension

January 26 2015

**UNDERSTANDING BLOOD PRESSURE** 

## What is Blood Pressure?

Blood pressure is the force of your blood moving against the walls of your arteries. It's expressed as **TWO NUMBERS**:

**TOP NUMBER**  
The pressure or force in the arteries when the heart beats

**Bottom Number**  
The pressure measured between heart beats

**KNOW WHAT YOUR BP NUMBERS MEAN:**

NORMAL	ELEVATED	HIGH
Systolic (mm Hg) below 120	Systolic (mm Hg) 120 to 139	Systolic (mm Hg) 140 & above
Diastolic (mm Hg) below 80	Diastolic (mm Hg) 80 to 89 <i>also called Prehypertension</i>	Diastolic (mm Hg) 90 & above <i>also called Hypertension</i>

Over time, elevated and high blood pressure can weaken your heart, blood vessels and kidneys, and makes a stroke or heart attack much more likely.

## 8 Lifestyle Changes for Lower Blood Pressure

- 1 Get Moving**  
with regular physical activity.
- 2 Focus on Nutrition**  
by making healthy food choices and watching your portion sizes.
- 3 Cut the Salt**  
Read food labels and aim for 1,500 mg of sodium or less per day.
- 4 Take Your Meds**  
If you are prescribed medicine for high blood pressure, take it every day.
- 5 Check Your Blood Pressure**  
as often as your doctor recommends.
- 6 Lose Weight**  
Losing just 10 pounds can make a big difference.
- 7 Cut Back Alcohol/ Don't Smoke**  
For men, not more than two drinks a day; for women, one. If you smoke, stop.
- 8 De-stress and Sleep Well**  
Relaxation can lower blood pressure, and quality sleep can give energy.

Visit: [www.CardioSmart.org/WgBNP](http://www.CardioSmart.org/WgBNP) to learn more today.

Credit: Cardiosmart/The American College of Cardiology

Younger adults with elevated systolic blood pressure—the top number in

the blood pressure reading—have a higher risk for cardiovascular disease and coronary heart disease than those with normal blood pressure, according to a large long-term study of younger adults published online today in the *Journal of the American College of Cardiology*. The risk was higher for women.

High [systolic blood pressure](#) with normal or near normal diastolic blood pressure (the bottom number) is known as isolated systolic hypertension.

"Until now, physicians have not considered isolated systolic hypertension to be bad, but this study shows higher risk," said the study's lead author Yuichiro Yano, MD, of the Department of Preventive Medicine at Northwestern University Feinberg School of Medicine in Chicago. "By identifying risks in younger populations, they can be made aware of the need to maintain cardiovascular health as they age."

Researchers followed nearly 30,000 young and middle-aged adults for more than 30 years. Isolated systolic blood pressure is defined as a systolic blood pressure 140 mm Hg or greater and [diastolic blood pressure](#) of less than 90 mm Hg. Normal blood pressure is defined as 130 mm Hg or less over 85 mm Hg or less.

The study included 15,868 men and 11,213 women age 18 to 49, with a mean age of 34 years, from the Chicago Heart Association Detection Project in Industry Study. Given the large number of participants in the Chicago study, researchers from Northwestern, University of Illinois at Chicago and University of California in Irvine believed it was a unique opportunity to study this population.

The subjects were recruited between 1967 and 1973. Of these, 85 percent were non-Hispanic whites without signs of heart disease who were not taking antihypertensive medications. The study found that compared to men who have [normal blood pressure](#), men with high

systolic blood pressure had a 23 percent increase in cardiovascular death. Compared to women with normal blood pressure, women with high systolic [blood pressure](#) had a 55 percent increase in cardiovascular death.

"We were surprised to find that women with isolated systolic hypertension were not so rare (25 percent of younger and middle-aged adults with isolated systolic hypertension were women)," Dr. Yano said. "Their cardiovascular disease risk is higher than we thought it would be."

One of the reasons the prevalence of isolated systolic hypertension is increasing in the United States is the obesity epidemic. "This study found consistently higher body mass index and cholesterol levels in young and middle-aged adults with isolated systolic hypertension," Dr. Yano reports. "Obesity was not the main focus of this study, but our research resulted in very interesting data."

The study was an observational study, which means there were no randomized controls and conclusions that can be drawn are limited. "We cannot definitively infer whether the excess [cardiovascular disease risk](#) from isolated systolic hypertension in younger and middle-aged adults warrants antihypertensive drug therapy or whether only lifestyle modification treatment is necessary."

"The benefits of treatment for isolated systolic hypertension among the elderly has been proven, but such evidence does not exist for younger and middle-aged adults," the study said.

"Further research is warranted, including clinical trials and studies seeking better ways (e.g., central BP monitoring, biomarkers) to identify younger and middle-aged [adults](#) with isolated systolic hypertension who are at especially greater risk for developing cardiovascular events," the study said.

Provided by American College of Cardiology

Citation: Study shows risk for younger adults with isolated systolic hypertension (2015, January 26) retrieved 19 April 2024 from <https://medicalxpress.com/news/2015-01-younger-adults-isolated-systolic-hypertension.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.