

Older women, younger men more likely to have uncontrolled blood pressure

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Women ages 70 and older and men ages 20-49 were more likely to have uncontrolled hypertension despite taking blood pressure-lowering medications, according to new research presented today at the American Heart Association's Hypertension Scientific Sessions 2021. The meeting is the premier scientific exchange focused on recent advances in basic and clinical research on high blood pressure and its relationship to cardiac and kidney disease, stroke, obesity and genetics, and is being held virtually Sept. 27-29, 2021.

According to the American Heart Association, nearly half of adults in the U.S. have high blood pressure, which increases their risk for heart attack, stroke, kidney disease and many other health conditions, including severe complications from COVID-19.

"Blood pressure control remains a major public health challenge that impacts even those being treated for the disease," according to study author Aayush Visaria, M.D., M.P.H., a postdoctoral research fellow at Rutgers Institute for Health, Health Care Policy and Aging Research at Rutgers University in New Brunswick, N.J.

"Although we know that women tend to have an accelerated increase in blood pressure and cardiovascular disease risk after menopause, we have little information on whether blood pressure control is different by gender and whether it changes with age," Visaria said.

Researchers used health information from the 1999 to 2018 National Health and Nutrition Examination Survey, a biannual, nationally representative survey conducted by the U.S. Centers for Disease Control and Prevention (CDC). This study included 13,253 adults, ages 20 years and older, who were taking prescription medications to treat hypertension. The average age was 57 years; 52% were women; and 71% were non-Hispanic white.

Researchers looked at rates of hypertension control using both an older and newer definition of high blood pressure: either greater than 140/90 mm Hg, as defined in the 2014 Joint National Commission guideline or greater than 130/80 mm Hg, as defined in the 2017 American Heart Association/American College of Cardiology guideline.

They compared rates of uncontrolled hypertension among men versus women across 10-year agegroups and found:

- Differences in odds of uncontrolled hypertension were similar regardless of the guideline criteria for high blood pressure.
- Overall, 34% of those in the study had uncontrolled hypertension.
- From ages 20 to 29, the odds of having uncontrolled hypertension was 59% higher for men compared to women, based on the American Heart Association guideline definition of <u>high blood pressure</u>. Among those ages 30-39, men were 70% more likely to be uncontrolled, and for those aged

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- 40-49 men were 47% more likely to be uncontrolled.
- From ages 50 to 69, women and men had similar odds of uncontrolled hypertension.
- For ages 70 and older, using the American Heart Association guideline definition of hypertension, women had 29% (age 70-79) to 63% (age 80+) higher odds of uncontrolled hypertension than men.

"These results indicate that women 70 years and older and men less than 50 years with hypertension may have increased risk of uncontrolled hypertension and may benefit from more frequent blood pressure monitoring," Visaria said. "In general, there is a need to increase awareness about uncontrolled hypertension among older women and younger men, and further studies need to be done to understand the reasons behind this phenomenon."

A limitation of the study is that researchers had access to only one blood pressure reading at one time point, which may not accurately depict a person's <u>blood</u> pressure because it usually fluctuates throughout the day.

"In order to really determine whether <u>uncontrolled</u> <u>hypertension</u> rates are changing in women versus men across age, a prospective study where <u>blood</u> <u>pressure</u> measurements are tracked over time in women and men with hypertension is ideal," Visaria said.

More information: Conference: professional.heart.org/en/meetings/hypertension

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