

# Have high blood pressure? You may want to check your meds

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Nearly 1 in 5 adults with high blood pressure, a leading risk factor for heart disease and stroke, also take a medicine that could be elevating their blood pressure, according to new research presented at the

American College of Cardiology's 70th Annual Scientific Session. The results underscore the need for patients to routinely review all of the medications they take with their care team, including those available over the counter, to make sure none could be interfering with blood pressure lowering efforts.

Which are the most likely culprits? Based on the study findings, the three most common classes of medications were antidepressants; nonsteroidal anti-inflammatory drugs (NSAIDs) that include ibuprofen and naproxen; and oral steroids used to treat conditions such as gout, lupus, rheumatoid arthritis or after an organ transplant. These medications were reported by 9%, 7% and 2% of participants, respectively. Other medications associated with blood pressure elevation were also reported, including antipsychotics, certain oral contraceptives and popular decongestants.

Researchers said these findings raise concerns, especially as nearly half of Americans diagnosed with high blood pressure do not have it sufficiently controlled. Dr. Vitarello explained the goal blood pressure for hypertension patients is a reading of less than 130 mmHg over 80 mmHg, based on the 2017 American College of Cardiology/American Heart Association (ACC/AHA) Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults.

"These are medications that we commonly take—both over-the-counter and prescribed medications—that may have the unintended side effect of raising blood pressure and could have adverse effects on our heart health," said John Vitarello, MD, an internal medicine resident at Beth Israel Deaconess Medical Center in Boston and the study's lead author. "We know that high blood pressure leads to cardiovascular disease, stroke and death and even small increases in blood pressure can have meaningful impacts on cardiovascular disease. Based on our findings, we need to be more aware of polypharmacy (the use of multiple medications

by a single patient) in older adults who also have the highest burden of high blood pressure."

The study examined data from 27,599 participants in the National Health and Nutrition Examination Survey (NHANES) between 2009 and 2018. Of these, about half (49%) had hypertension (average age 55 years, 48% female), which was defined in the study as having a blood pressure reading of >130 mmHg (systolic, the top number) or >80 mmHg (diastolic, the bottom number) or ever having been told they have high blood pressure. Researchers identified medications associated with blood pressure elevation based on those listed in the ACC/AHA guideline and examined use of these medications by adults with hypertension above and below recommended blood pressure goals.

Among participants with high blood pressure, 19% reported using one or more blood pressure raising medications and 4% reported using multiple. Nearly one-quarter (24%) of women with high blood pressure reported using a blood pressure raising [medication](#) compared with 14% of men. Older adults were more likely to be using blood pressure raising medications than younger adults (19% of participants over age 65 vs. 18% of participants under age 65).

Vitarello said the findings suggest that, in some cases, rather than treating high blood pressure with more medications, there may be opportunities to lower blood pressure by deprescribing or substituting safer medications. For example, there may be other classes of medications to treat the same condition that have less impact on blood pressure. Nevertheless, there are some patients who may not have another medication option, so it's advisable to keep a closer eye on their blood pressure and talk with their care team before stopping or starting medications.

Additionally, the study authors estimate that if half of U.S. adults with

hypertension who are taking blood pressure raising medications were to discontinue one of these medications, 560,000 to 2.2 million patients could be able to achieve their [blood](#) pressure goals without additional medications. But Vitarello said this analysis is only preliminary and individual responses to stopping [blood pressure](#) medications are likely to vary, thus the real-world benefit and tradeoffs of stopping these medications need to be further studied.

The study is limited in that it relies on participants' self-report of having [high blood pressure](#) and an accurate accounting of all the medications they take. The study was funded by the National Institute on Aging and an ACC Fellows Career Development Award.

**More information:** Vitarello will present the study, "Use and Estimated Impacts of Medications that Raise Blood Pressure Among U.S. Adults with Hypertension: National Cross-Sectional Study," on Sunday, May 16, at 12:30 p.m. ET / 16:30 UTC.

Provided by American College of Cardiology

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