

High blood pressure in the hospital: What doctors should know

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High blood pressure, also known as hypertension, is one of the biggest risk factors for severe health consequences such as kidney disease, heart attack, and stroke.

If high blood pressure is detected during a primary care visit, many effective therapies are available, including oral antihypertensive medicines. But when someone in the [emergency room](#) or the hospital has high blood pressure without signs of acute organ damage, the best course of action is much less clear.

Now, Adam Bress, PharmD, associate professor and vice chair of research for population health sciences in the Spencer Fox Eccles School of Medicine at the University of Utah, has chaired an American Heart Association Scientific Statement to [guide how doctors can best take care of people who have high blood pressure](#) while they're in the hospital. It has been published in the journal *Hypertension*.

Aggressive treatment of high blood pressure without evidence of target organ damage for hospitalized patients may do more harm than good, the statement says, and doctors should avoid starting an intensive anti-hypertensive treatment regime unless necessary.

Context matters

Part of the issue, Bress explains, is that people in an acute care setting experience a lot of factors that could make their blood pressure higher. "When you're in the hospital, you're usually there for an acute process, like pneumonia or a blood clot, and you're subject to abnormal living conditions—sleep and diet and stress—which can affect blood pressure."

What's more, health risks occur when blood pressure is consistently high over a long period of time, so elevated blood pressure during a short hospital stay might not indicate a chronic health concern.

It's important for doctors to be cautious, because overly aggressive antihypertensive treatment can lead to serious health consequences, Bress says.

According to a study published by another of the statement's authors, treatment with intravenous antihypertensive medication was associated with higher risks of dangerously low blood pressure, as well as kidney dysfunction and stroke. Bress explains that blood pressure is sensed and regulated by several organs in the body, and a sudden change in either direction can be dangerous.

Evidence-based recommendations

With that in mind, the new statement highlights that care providers use caution in their response to a high blood pressure reading in the hospital, and to start by ruling out and addressing common causes of a high blood pressure reading. "Check the measurement, check for reversible causes, and be judicious about starting or intensifying new medications," Bress says.

While treatment plans for high blood pressure in outpatient settings are well-established to help patients, much more research is needed to figure out how to best help people whose blood pressure is high during a [hospital](#) visit, Bress adds. That includes people who don't have a primary care provider, for whom acute care visits may be the only point of contact with the medical system.

In the meantime, clinicians should avoid "treating the number" when acute care patients have high blood pressure, especially if someone's [high blood pressure](#) isn't causing immediate symptoms.

For patients, Bress recommends getting a sense of one's own everyday blood pressure over time, which can be measured at home with validated devices. "It's simple, it's easy to do, and it provides clinicians with a lot of important information."

More information: Adam P. Bress et al, The Management of Elevated Blood Pressure in the Acute Care Setting: A Scientific Statement From the American Heart Association, *Hypertension* (2024). [DOI: 10.1161/HYP.0000000000000238](https://doi.org/10.1161/HYP.0000000000000238)

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