

Old lows. New highs

Paula Span on the revised guidelines for blood pressure and what they mean for patients and treating physicians

The patient initially came to see Dr Mark Supiano in 2017 because her family was concerned about her short-term memory loss. Dr Supiano, a geriatrician at the University of Utah, US, saw one disturbing signal — her blood pressure was 148/86, above normal despite her taking two medications to lower it.

Several factors could have contributed to the high reading, including the anti-inflammatory drug the 78-year-old woman took for arthritis pain, a high-sodium diet and a lack of regular exercise. She also typically drank a couple of glasses of wine each evening.

After Dr Supiano discussed ways to lower her risk, the woman and her husband joined a gym. She stopped taking the anti-inflammatory and cut back on salt and alcohol.

This brought down her systolic blood pressure readings into the 130 to 140 range. It was still hypertension, according to the guidelines issued by the American Heart Association and the American College of Cardiology later that year, but more acceptable. Systolic is the top number in the blood pressure ratio and the clinically more important number.

By 2019, though, the patient had a diagnosis of mild cognitive impairment, and medical evidence was emerging about a connection between hypertension (the medical term for high blood pressure) and dementia.

For more than 25 years, a reading of 140/90 or below was considered normal. But the 2017 update introduced major changes, backed by results from the landmark Sprint trial, which enrolled adults over 50 who were at high cardiovascular risk.

The trial found that intensive treatment aimed at bringing the systolic number below 120 reduced the risk of heart attacks, strokes, other cardiovascular illnesses and overall mortality so substantially that the investigators stopped the study early.



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It was unethical, they decided, to deny half the trial participants the benefits of intensive treatment. The 2017 guidelines, therefore, recommended medication for those with a systolic blood pressure over 130.

The most recent revisions, issued late last year, encourage still tighter control. They call for patients at cardiovascular risk to strive for systolic readings below 120, and they also call that target “reasonable”, even for those who are not at high risk.

Readings considered normal not so long ago are now defined as hypertension.

Blood pressure normally rises with age because “with stiffening of the arteries, the heart has to pump harder”, said Dr Erica Spatz, director of the preventive cardiovascular health programme at the Yale School of Medicine, US.

From 2021 to 2023, about two-thirds of

adults over 65 had hypertension, according to the operative definition at the time. But recent revisions could “define a lot more people as having high blood pressure”, said Dr Rita Redberg, a cardiologist at the University of California, San Francisco, US.

Recent studies in the US and China that show cognitive benefit for the lower readings “have tipped the scales” for older adults. “What’s good for the heart is good for the brain,” Dr Supiano said. “People may not want to live longer, but they want to hold on to their cognition longer,” he added.

Nearly all major medical associations, including the American Geriatrics Society (Dr Supiano is the chair of the organisation’s board), have endorsed the latest guidelines.

“I used to be lenient in many of my older patients,” said Dr John Dodson, a cardiologist and researcher at New York

University Langone Health, US. “If I over-treated high blood pressure, bad things were going to happen.”

Blood pressure that drops too low — hypotension — can cause dizziness and fainting or injuries from falls.

Now, Dr Dodson said, “I’m treating my older patients more aggressively.” Studies have shown that treating hypertension benefits even frail older adults. And while older adults in the Sprint trial had more fall injuries, the rate wasn’t higher in those receiving intensive treatment than in those undergoing standard treatment. Among those over 75, it was about 5 per cent for both groups.

Another significant change — the new guidelines recommend at-home monitoring.

“Blood pressure is tricky,” Dr Spatz pointed out. “It varies throughout the day, depending on whether a person is just waking up or just ate or it’s hot outside.” Systolic readings can bounce around by 30 points or more in a single day.

And they’re almost always higher in a doctor’s office. “Maybe the patient has white-coat syndrome,” she added, referring to anxiety about doctors and testing, “or they had a fight with the parking attendant” on the way in. Dr Spatz asks patients to record their blood pressure twice a day for a week or two before their appointments. Some doctors prescribe a 24-hour home monitor.

Yet the guidelines have sceptics too. Dr Redberg, for example, counsels older patients about diet, exercise and weight loss but does not urge them to start medication to reduce a 135 systolic reading to below 120.

They already seem overanxious about their blood pressure, she said, adding, “I encourage them to go out and enjoy themselves without fretting.”

“Take a class! Go to a museum!” she said. “You can’t do that if you’re at home taking your blood pressure five times a day.”