



## The Harvard Heart Letter

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# Is High-Normal Blood Pressure Really Normal?

Even for the most rugged individualist or nonconformist, it's a relief to hear your doctor say that you — or your test results — are normal.

When it comes to blood pressure, though, normal may not always mean best.

National guidelines have long defined high blood pressure (hypertension) as a systolic blood pressure of 140 or higher (as the heart contracts) or a diastolic pressure of 90 or higher (as the heart relaxes between beats). Those particular numbers were picked as cutoff points because a large body of evidence shows clear increases in the risk for heart attack, stroke, and other cardiovascular diseases at higher pressures.

By default, people with systolic pressures of 139 or less and diastolic pressures of 89 or less have "normal" blood pressure (see table). But new information from the long-running Framingham studies and others is laying the groundwork for a new view: that blood pressure in the high end of the normal range can also be harmful to your health.

### BLOOD PRESSURE CATEGORIES FROM THE LATEST GUIDELINE

Category	Systolic (mm Hg)	Diastolic (mm Hg)
Optimal	less than 120	<i>and</i> less than 80
Normal	less than 130	<i>and</i> less than 85
High-normal	130–139	<i>or</i> 85–89
Hypertension	140 or higher	<i>or</i> 90 or higher

### Problems With High-Normal Blood Pressure

Since the late 1940s, researchers have been giving regular checkups to more than 10,000 residents of Framingham, Massachusetts, and carefully following their health. In one of the latest reports from this extraordinary and fruitful study, investigators showed that many people with high-normal blood pressure are on the road to developing clear-cut hypertension. For those younger than age 65, almost 40% went on to develop hypertension within four years. That was much higher than the rates for people with normal (18%) or lower (5%) blood pressure.

Among people age 65 and over, the march toward hypertension was even stronger. (*Lancet*, 2001, Vol. 358, No. 9294, pp. 1682–86.) Being very overweight at the start of the study, or gaining weight during it, further increased the chances of developing hypertension.

A second study from the same team quantified the connection between high-normal blood pressure and cardiovascular disease over a 10-year period. For participants under age 65 who had high-

normal blood pressure, 4% of women and 8% of men had a heart attack or stroke, developed congestive heart failure, or died from cardiovascular disease. Among those age 65 and older, the numbers were much higher — 18% for women and 25% for men.

## What We Know and Don't Know — About High-Normal Blood Pressure

These studies favor the idea that if you are in the high-normal range you should have your blood pressure checked at least once a year. If you have normal blood pressure, you're probably safe having it measured every other year.

The other message is tougher to take. People with high-normal blood pressure — and there are a lot of you out there — shouldn't necessarily feel that this is a safe pressure.

**The latest national blood pressure guidelines include a category we should all use as a goal. This is optimal blood pressure, a systolic pressure less than 120 and a diastolic pressure less than 80 (see table).**

Normal is still okay, but as the latest studies suggest, the more your blood pressure rises above optimal, the greater your chances of developing hypertension or cardiovascular disease.

What these studies don't tell us is whether taking a pressure-lowering medication helps people with high-normal blood pressure live longer or feel better. Because all medications have side effects, there's a reasonable chance that drug therapy might actually make them feel worse.

## Taking High-Normal Seriously

The new data from the Framingham studies seem to describe a risk factor for a risk factor — high-normal blood pressure predisposes people to hypertension, which puts them at risk for cardiovascular disease. The idea is almost enough to give you a headache. But it's good science and good medicine.

Most people visit a doctor seeking relief from symptoms or advice for staying healthy. Because it's impossible to anticipate an individual's future health with certainty, the second task is usually less straightforward than the first. In addition, people who feel fine right now don't have much motivation to make important and possibly difficult changes. People with high-normal blood pressure clearly fall into this category.

Information showing the possible dangers of high-normal blood pressure may give you (and your doctor) added motivation to pay attention to blood pressure. Going easy on salt; eating more fruit, vegetables, and fiber; drinking less alcohol; controlling weight; and exercising more can help pull high-normal blood pressure down into the normal or even the optimal range.

It's possible that this ounce of prevention might just help you avoid the pound of cure needed to treat full-blown hypertension or cardiovascular disease.

**WARNING:** The Information in these articles is not intended to replace medical advice or treatment. Questions about symptoms, specific dietary needs and medications, general or specific, should be discussed with your physician. The information in this article is for informational purposes only, and is not medical advice or a substitute for a physician's consultation and/or examination.

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