New Hypertension Guidelines

BY WILLIAM FALOON

Life Extension® has waged a long battle over what defines ***optimal*** blood pressure.

Back in the early **1980**s, doctors delayed treatment until systolic **blood pressure** exceeded **150 mmHg**.

We argued ***against*** allowing patients to have blood pressure this high. Our readers were urged to target their blood pressure below **120/80 mmHg**.

Against us was a medical establishment that viewed ***systolic*** blood pressure of **140-150 mmHg** as "normal." They viewed it as "normal" because most elderly people were in these high ranges.

Our rebuttal was that it is also "normal" for older people to succumb to **heart attack**, **stroke** and **kidney failure** related to ***higher***-than-***optimal*** blood pressure.

On **November 13, 2017,** at the **American Heart Association's** annual conference, revised hypertension guidelines were issued. The new guideline specifies that normal **systolic** pressure is under **120 mmHg**.

We applaud this turnabout, but regret it took over **30 years** for this common-sense approach to be recognized. The cost in shortened lifetimes caused by the establishment's delay in recognizing **optimal** blood pressure is enormous.

This editorial clarifies these new hypertension guidelines and suggests how to better lower your blood pressure.

As you can see by the chart at the bottom of this page, the majority of Americans aged 65 and older have **high blood pressure** that is medically defined as **hypertension**.

With the new hypertension guidelines from the **American Heart Association** and the **American College of Cardiology**, an even greater number of Americans are now clinically hypertensive. This will enable more people to take assertive actions to achieve lower blood pressure and reduce their risks of losing their eyesight, suffering kidney failure, and developing coronary-cerebral artery occlusion.

It's important to note that the study the **American Heart Association** and the **American College of Cardiology** most relied on to revise blood pressure guidelines downward involved people **at risk** for cardiovascular disease.[1] Some argue these findings may not apply to individuals at low risk.

I continue to urge that healthy individuals of all ages strive for low-normal blood pressure readings. I say this based on a volume of observational studies, including data showing that people who have **mid-life** hypertension are at higher risk of vascular events even when they lower their blood pressure in later life.[2-5]

Arterial damage is most severe when blood pressure peaks. You don't get credit for the hours when blood pressure is in low normal ranges. This is why ***at-home*** monitoring of blood pressure at different times of the day is so important.

The charts you see on these pages are from the many Power Point presentations I have given suggesting most people target their **blood pressure** around **Life Extension**'s ***optimal*** range of **115/75 mmHg**.

Another purpose of this editorial is to provide guidance to help ensure that elderly readers do not lower their blood pressure too quickly, as this can create adverse consequences.

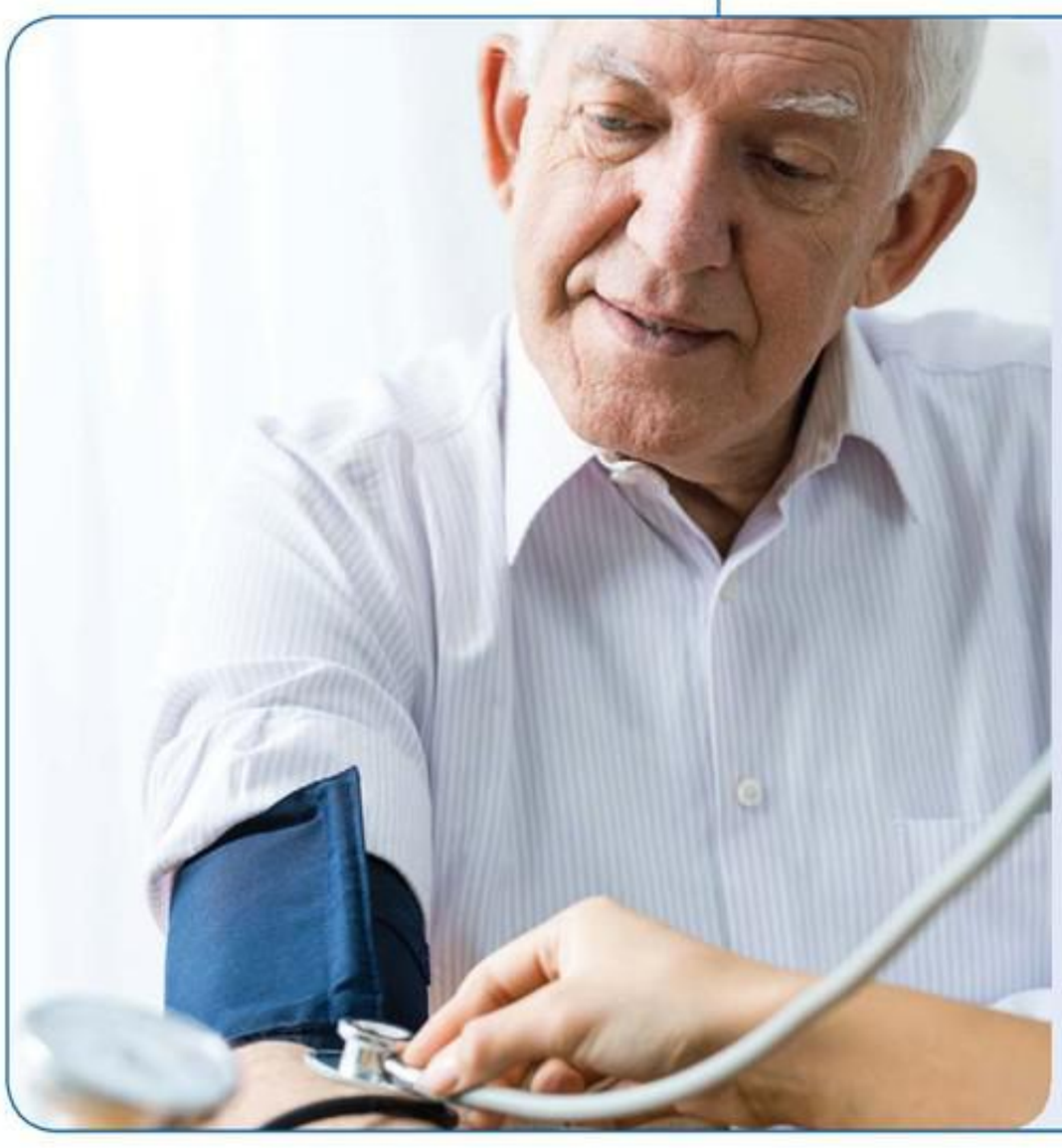
Early Data Showed Benefits of Lower Blood Pressure

In year **2013**, a published analysis of **18** prior studies showed that people whose systolic blood pressure was in the range of **120-139 mmHg** were at a **50%** increased risk of **coronary heart disease** and **71%** increased risk of **stroke**.[7]

The studies analyzed in this **2013** report are among those that **Life Extension** used long ago to recommend that ***optimal*** systolic blood pressure for most individuals is around **115 mmHg**.

Mainstream medicine during this pre-2017 era did not classify people with systolic readings of **120-139 mmHg** as **hypertensive**. The tragic results, based on observational studies, are many preventable heart attacks, strokes, and other degenerative conditions that can occur when systolic pressure exceeds **119 mmHg**.[8-10]

The **systolic** number is most important as this reflects the



Severity of the Epidemic

Persons defined as hypertensive by CDC:[6]

Men	65-74 years	**63.4%**
	75 years and over	**72.3%**
Women	65-74 years	**64.3%**
	75 years and over	**79.9%**

These data published by the **Centers for Disease Control and Prevention** in **2016** reflect the percent of **hypertensive** Americans based on antiquated reference ranges that diagnosed hypertension when blood pressure reached **140/90 mmHg**.

The new guidelines stating ***optimal*** systolic pressure is under **120 mmHg** will cause the percent of Americans classified as hypertensive to skyrocket, which should enable a marked reduction of vascular disease risk.

Deadly Impact of Systolic Blood Pressure 120-139 mmHg[7]

A year 2013 analysis of 18 studies showed correlation in those with systolic blood pressure between 120-139 mmHg and an associated:

- **50%** increased risk of coronary heart disease
- **71%** increased risk of stroke

Decades of published data reveal that low-normal blood pressure slashes heart attack and stroke risk. This **2013** analysis shows the lethal impact of systolic blood pressure ranges of **120-139 mmHg**, a level previously termed "prehypertension."

On November 13, 2017, the **American Heart Association** and the **American College of Cardiology** abolished the term "prehypertension." Anyone with systolic pressure above **119 mmHg** is classified as having "elevated" blood pressure.

pressure applied to the **arterial system** with each heartbeat. Higher **arterial pressure** causes greater **damage** to the endothelium, renal tubules, and delicate structures in the eye.

The Study That Woke Up the Medical Establishment!

The studies compiled for publication in **2013** were not enough for establishment cardiology to pay attention. They wanted to see hard data from a carefully controlled clinical trial.

The sought-after trial was initiated in **2010** with a large group of people. The purpose was to assess whether targeting a reduction of **systolic** blood pressure below **120 mmHg** was superior to the then-current standard of reducing it to below **140 mmHg**.

The doctors focused on the systolic (top) number because it is a better predictor of **heart attack** and **stroke**.

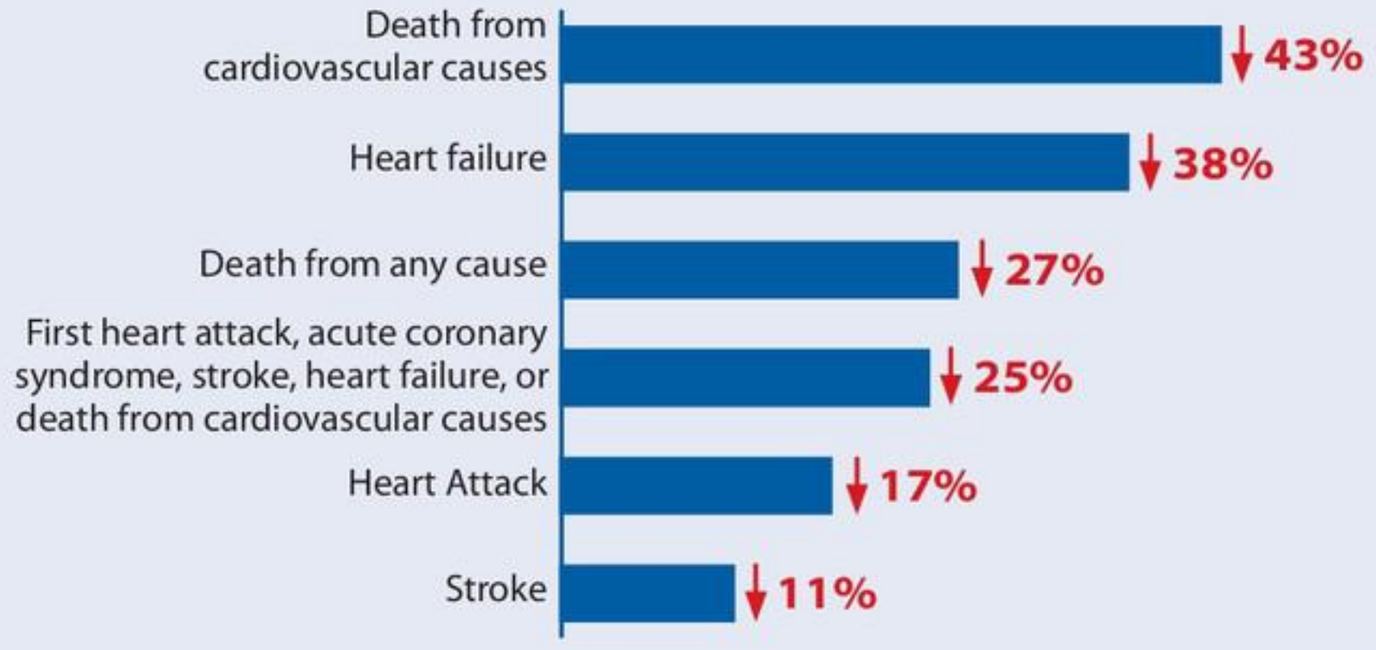
The name of this study is **Systolic Blood Pressure Intervention Trial**, also known as **SPRINT**.[11] It was published in the ***New England Journal of Medicine*** in **2015** and garnered huge media coverage.

The **SPRINT** study was supposed to last **five years**, but was stopped after **3.26 years** because it was abundantly clear that the group whose blood pressure was reduced to a target systolic range under **120 mmHg** were dying **27%** less frequently.

What impressed the study's researchers the most was a striking **43%** lower relative risk of **cardiovascular death** in those whose blood pressure was aggressively reduced.[11]

Risk Reduction of Intensive Treatment (Below 120 mmHg) Compared to Standard Treatment (Below 140 mmHg)

This chart shows reductions in death and disease when systolic blood pressure target is below **120 mmHg** compared to below **140 mmHg**.



Benefits of Lower Blood Pressure Confirmed in 2015[11]

Compared to people with a target systolic blood pressure below 140 mmHg, subjects with target blood pressure below 120 mmHg had:

- **38%** lower risk of heart failure
- **43%** lower risk of cardiovascular death
- **27%** lower overall mortality

The SPRINT study published in **2015** confirmed that targeting systolic blood pressure below **120 mmHg** results in substantial reductions in heart disease and lower overall death rates.

The SPRINT study also found that **heart failure** rates plummeted by **38%** in patients whose target blood pressure aimed below **120 mmHg**. Heart failure occurs when the heart cannot pump enough blood and oxygen to support other organs in one's body. It is a leading cause of hospitalizations and costs this nation an estimated **$32 billion** each year.[12]

Heart disease remains the number-one cause of death in the United States, killing about **610,000** Americans each year.[13]

The dramatic (**43%**) drop in **cardiovascular deaths** shown in the SPRINT study motivated mainstream cardiologists to question their long-standing practice of largely ignoring their patient's blood pressure until readings exceeded **139/89 mmHg**.

Based on widespread media coverage and physician concurrence, it appears the medical establishment has finally woken up to what readers of this publication were told to do in the **1980s**.

Safety Concerns When Blood Pressure is Lowered too Much

Older individuals face a dilemma when it comes to rapid blood-pressure reduction.

Decades of systolic blood pressure above **115 mmHg**, along with risk factors in the blood such as **C-reactive protein**, **homocysteine** and **triglycerides** can damage the delicate endothelium that lines the inner arterial wall.

As a result of prior arterial injury, some older people need to maintain ***higher***-than-optimal blood pressure to ensure their **kidneys** are sufficiently removing waste products, and that their **brain** is receiving sufficient oxygen flow.

In the **SPRINT** study that convinced the **American Heart Association** and the **American College of Cardiology** to adopt lower systolic guidelines (below **120 mmHg**), there was an increase in the risk of kidney problems.

Practical Steps to Blood-Pressure Control

I continue to be shocked by antiquated recommendations made by organizations like the **American Heart Association**.

In revising their definition of optimal systolic pressure to below **120 mmHg**, the American Heart Association suggests people have their blood pressure tested once every two years at their doctor's office.[18]

This suggestion makes no sense considering that low-cost **at-home** monitors are widely available and are **proven** to enable superior **24-hour** blood-pressure control.

There is extensive individual variability in patient responses to blood-pressure lowering therapies. Some people need twice-a-day drug dosing, or only need to take their medications in situations when their blood pressure elevates (such as when drinking caffeine or under stressful events or during particular times of the day/night).

I have vociferously argued for decades that systolic blood pressure should be below **120 mmHg**. I am equally confident that most readers of this magazine can better control their blood pressure using an **at-home monitor**. This enables precise control of drug dosing and offers the ability to measure the effects of lifestyle changes like losing weight, healthier diets and getting more physical activity.

Blood Tests Measure Kidney Function

For those who now seek to aggressively drop their **systolic** reading to below **120 mmHg**, we urge this be done slowly, using an **at-home** monitor to carefully control the rate of blood-pressure reduction.

As blood-pressure readings drop, check your blood markers of **kidney function** using low-cost **blood tests** that measure **creatinine**, **blood urea nitrogen** (BUN), **glomerular filtration rate** and lots more. Blood test panels that include these measures of renal function cost very little.

If blood-test results indicate a kidney problem, cut back on your blood pressure reduction program, consult your physician and retest within two weeks.

An Important Overlooked Fact

An underappreciated problem that has been ignored by **SPRINT** study advocates has been the manner in which blood pressure was measured in SPRINT.

Specifically, the study used an **automated** measurement device, the Omron 907XL.

"In SPRINT, study staffs were trained to program an Omron 907XL, to wait five minutes and then record three readings at one-minute intervals. After the device was activated, research staff left the examining room, with the patient then being alone during the five-minute rest period while the three readings were recorded automatically."[14]

This protocol is very different from the method used in the vast majority of physician's offices where a single measure of blood pressure is taken with medical staff present in the room.

Automated blood-pressure measurements generally deliver readings significantly LOWER than readings in a physician's office.

This suggests that the SPRINT systolic values obtained were on average **7** to **10 mmHg** lower than blood pressure measured in routine clinical practice.

Taken as a whole, this also suggests that systolic blood pressure as measured in recent randomized trials, including SPRINT, is up to 10 systolic points LOWER than that measured with traditional office measurement methodology.

The consequence is that targeting systolic blood pressure below **120 mmHg** without using similar measurement automated methods (as in SPRINT) may increase the risk of adverse events. This might occur by overshooting the SPRINT trial-based systolic blood-pressure targets and potentially leading to hypotensive complications.

Stated another way, a systolic blood pressure of **120 mmHg** in conventional practice would be roughly the equivalent of a systolic blood pressure of **110 mmHg** in SPRINT. Conversely, a blood pressure of **130 mmHg** systolic in conventional practice is roughly the equivalent systolic blood pressure of **120 mmHg** in SPRINT.

This suggests that blood-pressure readings over **120 mmHg** using conventional testing are not as dangerous as what the SPRINT findings showed.

These data suggest that more precise blood pressure monitoring may enable aging individuals to benefit from superior hypertension control.[15-17] We believe many people can better achieve this using an at-home blood pressure monitor.

The most accurate measure of renal health is the **cystatin-c** blood test. This costs more than standard **CBC/Chemistry** blood tests, but for those at risk for renal complications, we have long advocated its use.

These blood tests can be ordered 24 hours/day by calling **1-800-208-3444** or logging on to LifeExtension.com/labtesting

Protecting the Brain against Reduced Oxygen Flow

Aggressive blood pressure reduction can create problems for certain elderly, frail people.

Older patients with significant pre-existing vascular disease and other medical problems often require ***higher*** blood pressure to perfuse critical organs like the **brain**.

These patients require a higher ***perfusion pressure*** to allow blood to reach critical organs and tissues throughout the body.[19]

We described the phenomenon in previous issues of ***Life Extension Magazine®***,[20] whereby some older patients do not tolerate aggressive blood pressure reduction to a predefined value (such as under **120 mmHg**).

These individuals require careful monitoring using blood tests as well as assessments of cognitive function.

These tests are necessary to facilitate appropriate dosing of antihypertensive medications to a blood pressure that can be tolerated by these patients.

When lowering one's blood pressure, one should be cognizant of dizzy spells, memory lapses, and perceived loss of motor coordination (frailty).

Ideally, one would have clinical measures performed using a standardized **frailty index** score, but this is not available from most physicians.

Nutrients most readers of this magazine take, along with healthy diets containing plant-based **polyphenols,** can protect and help restore cerebral circulation.[21-23]

Those embarking on an aggressive blood-pressure reduction program may also consider a periwinkle-derived alkaloid called **vinpocetine** that has been used for decades in **Europe** by those with chronic cerebral hypoperfusion.[24-26]

Blood-Flow-Restoring Effects of Vinpocetine

Cerebral ischemia (loss of blood flow) can lead to irreversible brain damage. It is therefore important to rescue **hypoperfused** areas of the brain whenever possible.

A review was conducted on the effects of **vinpocetine** on chronic cerebrovascular patients.[25] Studies included **cerebral perfusion imaging** and **clinical assessments** of cognitive function after single dose and long-term vinpocetine use.

The results from these clinical trials showed that vinpocetine increased **cerebral perfusion**,[26] elevated brain-cell consumption of glucose-oxygen,[26,27] and improved other measures of neurological function.[28]

This analysis showed that **vinpocetine** improves blood flow to hypoperfused areas of the brain and enhanced quality-of-life scores.[25]

Those seeking to avoid depriving their brain of blood flow when lowering their blood pressure may consider supplementing with **20-30 mg** daily of low-cost **vinpocetine**.

Nutrients Versus Drugs

There are a wide variety of **nutrients** that produce modest blood pressure-lowering effects.

If your systolic pressure is around **125 mmHg** and you seek to bring it down to the **115 mmHg** range, you might be able to accomplish this by losing a little weight, improving your diet, exercising more, and supplementing with quercetin and melatonin.

View Our Updated Hypertension Protocol Online

An enormous volume of data has been published in recent years that relate to what groups of aging people most benefit from with blood-pressure reductions, along with better ways of achieving optimal control.

We've analyzed and compiled this data, which you can view at no charge by logging on to **LifeExtension.com/hypertension-protocol**

An example of what you'll read relates to what diabetics should do when their blood pressure is too high. Current evidence suggests that there may be adverse effects when diabetics are overly aggressive in reducing only moderately elevated blood pressure.

My personal rebuttal to these studies is that diabetics should do more to reverse their **glucose/insulin** imbalances, along with other known vascular risks.

For many people, however, they will need the appropriate prescription **medication** to achieve optimal blood-pressure goals. The long history of use with these drugs and their low cost causes us to recommend certain drugs that not only safely lower blood pressure, but confer other benefits such as improving *endothelial function*.

In the **March 2015** issue of ***Life Extension Magazine***, we published a report on a generic drug called **telmisartan** that we felt was the best antihypertensive drug for most individuals to consider.[29]

With the availability of low-cost **at-home** blood-pressure monitors, there is no longer a need to speculate as to what approach one should take.

If lifestyle changes and/or nutrients enable one to achieve optimal readings (**115/75 mmHg**), then prescription drugs are obviously not needed for blood-pressure control.

If **systolic** pressure remains persistently above **119 mmHg**, then **40 mg** a day of **telmisartan** (and/or other medications your physician prescribes) should be attempted. Telmisartan doses can be increased to **80 mg**/day if needed.

Unlike many drugs the **FDA** approves that are side-effect prone and don't work particularly well, certain **antihypertensive medications** have lifesaving properties that cannot be overlooked if one's blood-pressure readings remain higher than optimal.

Importance of At-Home Blood-Pressure Monitoring

Monitoring blood pressure outside of the doctor's office is emerging as a standard of care for high blood pressure, as it helps to more accurately diagnose and track treatment efficacy.[32]

Everyone who has been diagnosed with high blood pressure should have an **at-home monitor** in order to ensure that any intervention they are undertaking is working to help keep their blood-pressure readings around **115/75 mmHg** throughout the day.

The importance of regular **at-home blood-pressure monitoring** cannot be overstated.

In fact, monitoring your blood pressure at home may help you better control it, possibly obviating the need to increase medication dosage.

In a randomized controlled trial, 136 participants with uncontrolled high blood pressure were assigned to **at-home** blood-pressure monitoring or usual care; their medication regimen was not modified.[33]

Those who regularly monitored their blood pressure **at home** saw significant reductions in systolic and diastolic blood pressure compared with those who did not self-monitor.

At the end of the two-month trial, **32.4%** of the self-monitoring (at-home) group had blood pressure of less than **130/80 mmHg**, while only ***half*** as many participants—**16.2%**—who did not self-monitor saw their blood pressure fall below this level.[33]

Several other studies have found similar benefits associated with at-home blood-pressure monitoring.[34-37]

The Turning Tide of Medical Opinion

Fascinating reviews about the history of hypertension can easily by obtained via **Google** searches.

As recently as **1949**, an esteemed physician published that systolic blood pressure over **200 mmHg** need not be treated.[30]

In the **1980s**, many doctors accepted **systolic** readings of **160 mmHg** as normal and did not treat it.[31]

The revised **2017** guidelines that normal **systolic** pressure is under **120 mmHg** will spare many humans from disability and death.

An abundance of published findings confirms that keeping one's blood pressure on the low end of the reference range confers significant protection against a host of degenerative conditions.

The easiest way to accomplish this is with an **at-home** blood-pressure monitor. This enables you to assess your blood pressure at several different times of the day to ensure there are no significant elevations above **119 mmHg**.

The box on this page is a description of a recent study showing vastly superior results when people check their blood pressure **at home**, rather than waiting for their next doctor's visit.

For longer life,

William Faloon, Co-Founder
Life Extension Buyers Club

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