

Understanding Blood Pressure in a Healthy Way

Analysis by [A Midwestern Doctor](#)

August 13, 2026

STORY AT-A-GLANCE

- › Blood pressure diagnoses have exploded as guidelines repeatedly lower thresholds, resulting in half of American adults now being “hypertensive” despite minimal evidence justifying this, and erroneous diagnoses frequently occurring
- › Despite aggressively treating it, medicine still does not know what causes high blood pressure. As a result, it overlooks that impaired circulation elevates blood pressure and attributes the ensuing damage to “high” blood pressure rather than to insufficient blood flow to the tissues
- › Excessively low BP from over-treatment is dangerous, increasing risks of fainting, falls (especially in the elderly), kidney injury, cognitive decline, ischemic strokes, and mortality
- › Different blood pressure medicines have very different risks and benefits. Because doctors are unaware of this, they frequently push patients to take inappropriate medications and then deny that life-impairing side effects are happening
- › This article will explore the core issues with the conventional framework of blood pressure and what we need to know to reclaim cardiovascular health

Ever since I first entered the medical field, something struck me as off about the relentless focus on blood pressure, and over time I noticed that the blood pressures people reported to me varied widely. While pondering this, a talented practitioner and mentor once told me that the current medical paradigm fixates on blood pressure because **it's easier to measure than blood perfusion** (healthy blood flow).

Then, as I became more acquainted with the medical field, I began to notice a consistent pattern — whenever a drug existed that could treat a number or statistic, as the years went by, the acceptable number kept on being narrowed, making more and more people eligible to take the drugs that treated the number.

Conventional Blood Pressure Perspectives

Since blood vessels are elastic fluid-filled structures, that fluid holds them under pressure. Blood pressure, in turn, is typically measured by determining how much external force is needed to exceed the artery's pressure and compress it so that blood no longer flows through it.

Low blood pressure (hypotension) is a problem because it prevents blood from reaching the areas where it's needed, but in most cases, medicine instead focuses on the consequences of high blood pressure. Within the conventional model, those consequences are:

- Weakened blood vessels become more likely to break open and leak as higher blood pressure pushes against them. This for instance, is why Emergency Rooms aggressively lower the blood pressure of patients who show up with symptoms of "hypertensive emergency," such as a severe headache and a significantly elevated blood pressure.

Likewise, whenever a critical blood vessel ruptures (e.g., the aorta or one in the brain), once the bleed has been confirmed, the first step in managing it is to lower the patient's blood pressure (so less blood leaks out) after which they are sent to surgery.

- Excessive pressure on the arteries strains and damages them, causing the lining of the vessels to become damaged and gradually develop atherosclerosis.

- Excessive blood pressure damages the internal organs (termed end-organ damage), leading to premature failure and early death (e.g., from a heart attack or kidney failure) – something which also results from chronic insufficient blood flow.

Because of this, high blood pressure is viewed as one of the leading preventable causes of cardiovascular disease; therefore, ensuring that a patient achieves sufficiently reduced blood pressure is a primary focus of all medical visits. Unfortunately, that chain of logic has quite a few holes in it.

Variable Blood Pressure

Blood pressure (BP) is highly variable, especially at the periphery, where it's typically measured. This variability – around 14 points – can lead to misdiagnoses of hypertension and unnecessary medication, which can lower BP too much, causing hypotension.¹ One common form of this misdiagnosis is known as White Coat Hypertension, where the stress of visiting a doctor temporarily raises BP.

This affects 15% to 30% of patients "diagnosed" with hypertension.² Guidelines recommend confirming hypertension with multiple measurements, including home monitoring, but this is often not done.

Measurement errors, such as using the wrong cuff size or failing to account for differences in BP between arms, contribute to the issue. It's estimated that 25% of hypertension diagnoses are incorrect.³ Moreover, there is often a poor correlation between peripheral BP (limbs) and central BP (inside the aorta). Central BP, which is more closely linked to cardiovascular disease, can differ significantly from arm readings. Different BP medications also affect central and peripheral BP differently, adding complexity to treatment.

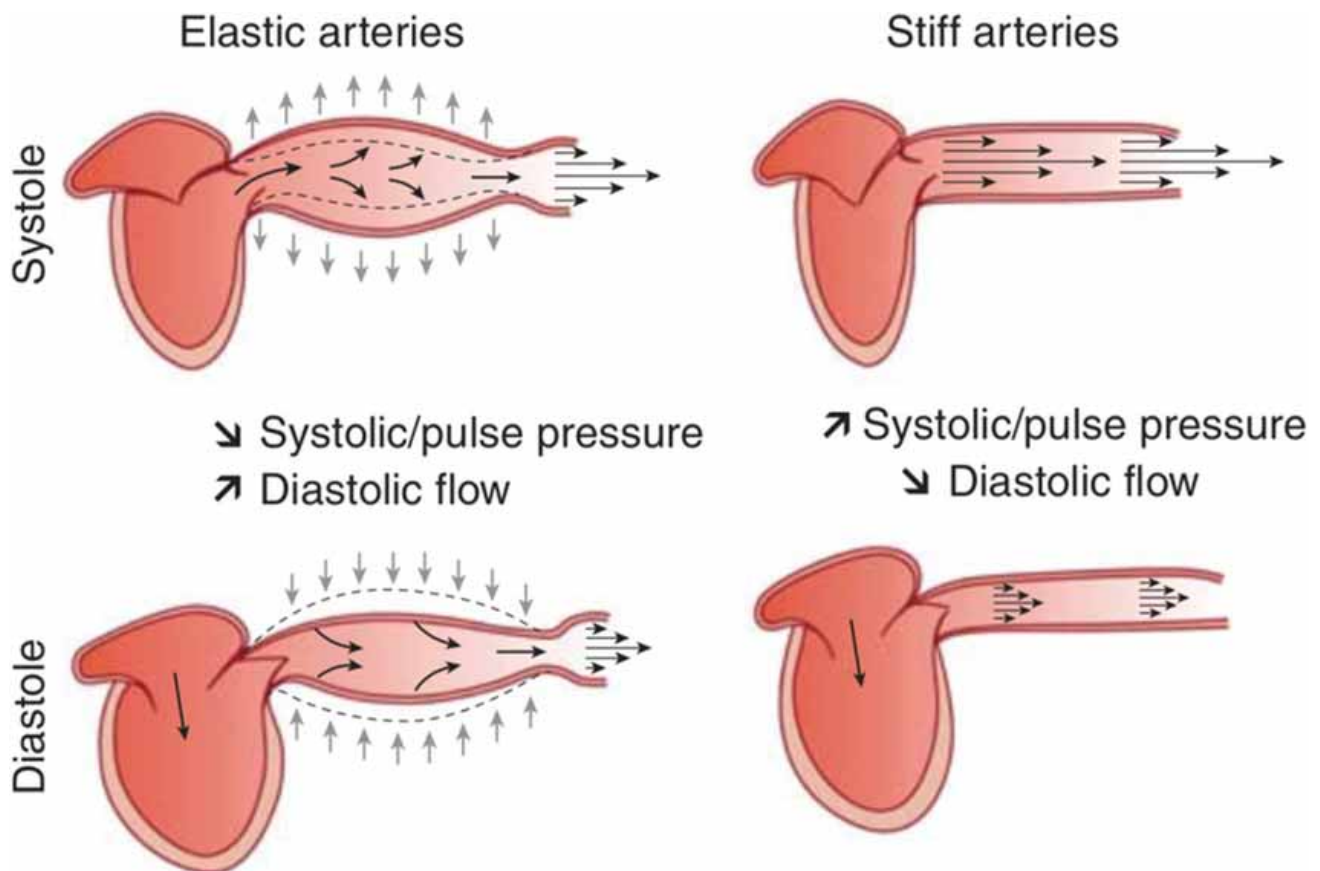
What Affects Blood Pressure?

If fluid at a set pressure tries to move through a tube, as the tube shrinks, the pressure it creates (e.g., on the walls of the tube) will increase, while if the tube enlarges, the pressure it exerts will decrease. The body continually controls where blood in the body goes by changing the heart rate and fully or partially constricting the arteries, allowing it to shunt blood to where it is most needed (e.g., by dilating arteries in that area).

Blood pressure is thus a product of two factors: the volume of blood in the arteries and the degree of arterial constriction or relaxation.

Note: Since arterial BP is greater than venous BP, it's what's measured externally (as veins compress long before arteries do, and only arterial blood has a signature pulsatile wave created by the heartbeat).

Since each heartbeat pushes blood into the arteries and thereby increases the pressure within them, two blood pressure values exist – the baseline pressure (diastolic pressure, DBP) and the pressure when the heart contracts (systolic pressure, SBP). The blood pressure values you see (e.g., 140/90) represent the maximum and minimum.



Note: One reason why this stretching is important is that when the vessels contract back to their normal size once the systolic pressure fades, that recoil pushes blood further along into the circulation.

Blood pressure lowering medications in turn work by some combination of:

- Loosening the arterial walls
- Reducing the total blood in circulation
- Weakening the contraction of the heart

What Causes High Blood Pressure?

Most cases of high blood pressure (90% to 95% of them⁴) are what is known as "essential hypertension" or "primary hypertension" which is a fancy (and rarely questioned) way of saying "elevated blood pressure without a known cause."

More importantly, the fact there is no known cause for most cases of elevated blood pressure has been a widespread belief in medicine for decades. Typically, the only cause we hear about is "not eating salt," despite the fact that the most detailed review of this subject found that drastic salt reduction typically results in less than a 1% reduction in blood pressure and more importantly,⁵ that eating salt is actually critically important for health (discussed further [here](#)).

For the remaining 5% to 10% (known as secondary hypertension), recognized causes include reduced blood flow to the kidneys (which sets off a signal to raise the blood pressure because the kidneys believe there isn't enough blood perfusion),⁶ sleep apnea,⁷ or having a rare tumor that releases a blood pressure increasing hormone.⁸

Since the cause of most hypertension is unclear, medicine simply focuses on risk factors like age, diabetes, salt intake, obesity, stress, and family history.

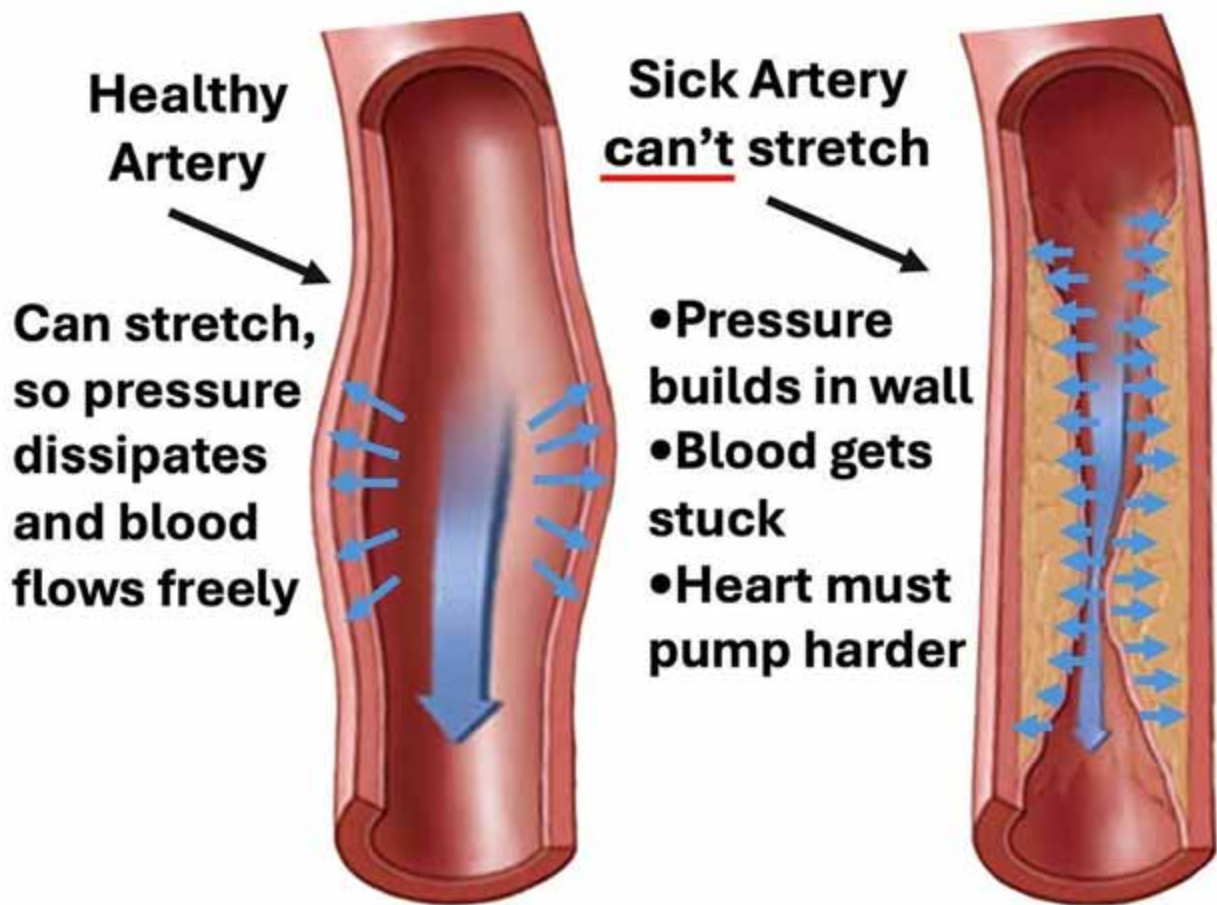
Note: Effectively addressing anxiety can often cure high blood pressure that would otherwise be perpetually medicated.

Atherosclerosis and Blood Pressure

Many of my colleagues became suspicious of the traditional blood pressure model after observing that circulatory impairments often co-occurred with rising blood pressure rather than resulting from long-term damage.

This led us to conclude that elevated blood pressure might be a compensatory response to inadequate blood flow, similar to how the kidneys raise blood pressure when they don't receive enough blood. Several factors support this idea:

- 1. Arterial stiffening** — Calcified arteries can't expand as effectively, raising blood pressure as they become less able to release pressure.
- 2. Measurement inaccuracy** — Blood pressure cuffs may overestimate pressure in stiffened arteries, particularly in those with severe atherosclerosis, resulting in higher readings than the true pressure (because hardened arteries require greater pressure to compress).
- 3. Endothelial dysfunction** — The blood vessel lining releases nitric oxide to dilate vessels and decrease pressure. When this function fails, it precedes atherosclerosis and increases blood pressure, suggesting the problem is with endothelial health, not high blood pressure itself.⁹
- 4. Sympathetic reflex** — When the body rapidly loses a significant amount of blood, a reflex triggers increased heart rate and vessel constriction to raise blood pressure, a common response in critical conditions.¹⁰



This all suggests that high blood pressure may be more of a symptom than the root cause of circulatory issues.

Note: As I show [here](#), a strong case can also be made that the **blood thickening and clumping together causes hypertension**.



Richard Amerling, MD 2 hrs ago ❤️ Liked by A Midwestern Doctor

As a nephrologist of many years I'm intimately acquainted with this topic and only yesterday delivered a lecture to a group of practitioners. I made many of the points you raised in your excellent review. Here are a few more:

In addition to blood volume and vascular tone, inotropy (contractile force of the heart) contributes to blood pressure. Beta blockers work mostly by reducing this, and the heart rate.

The body is designed to maintain blood pressure! Any perturbations will immediately trigger counter-regulatory mechanisms. Reducing salt intake, or administering a diuretic, decreases blood volume and pressure and leads to activation of the sympathetic nervous system. This increases heart rate, inotropy, and vasoconstriction, all of which restore blood pressure (and hence organ perfusion), and can actually overshoot and cause hypertension.

Decreasing sodium delivery to the kidney results in activation of the renin-angiotensin-aldosterone system, causing vasoconstriction and sodium retention.

Chronic salt depletion (which is rampant due to its demonization) causes quasi-permanent activation of these hormonal systems and is deleterious to health.

I recently consulted on two cases where healthy seniors were prescribed not one, not two, but three (!) antihypertensive medications for BP of 140/90. One developed acute kidney failure, the other had near-syncope and onset of atrial fibrillation. This is medical malpractice, but now considered standard of care!

Changing Guidelines

When the blood pressure craze took off, there was a rush to bring the blood pressure lowering drugs to market before their benefit was actually proven (outside of a few short term studies which showed a small benefit for people with very high blood pressures).

That mindset cemented itself, and as the years went by, regardless of the evidence arguing against it, the blood pressure thresholds kept on getting lowered so more and more people could put on blood pressure lowering medications. Because of this, roughly 60 million American adults (23%) now take these drugs.¹¹

However, excessively lowering blood pressure cuts blood flow to parts of the body that can't function without sufficient blood flow. For example, blood pressure medications increase the risk of kidney disease,^{12,13} and suddenly passing out (from insufficient blood flow to the brain) is one of the most common side effects of blood pressure medications.^{14,15}

My best guess is that this inexorable march to putting everyone on these drugs is due to some combination of the following:

- Research funding is available for these areas (e.g., from the drug manufacturers) hence being a safe area of research for academics to explore.
- It illustrates the "if you have a hammer, everything looks like a nail" phenomenon and the medical profession's desire to find more justifications for using its tools (especially since humans tend to double down on their existing approach when it fails rather than consider a new one).

Let's now look at how the blood pressure guidelines have changed over the years.

Note: As these guidelines show, originally the focus was on treating diastolic blood pressure under the belief that the heart had to "work harder" if there was too much blood in the circulation. I believe this is helpful to note since it was believed for decades (but now is not), and hence illustrates how arbitrary many medical dogmas are.

Guidelines	Drug Recommendations			
	SBP (mmHg)		DBP (mmHg)	
	Consider	Treat	Consider	Treat
JNC-I (1977)			≥ 90	≥ 105
JNC-II (1980)				
General non-elderly population			≥ 90	≥ 105
Renal disease				≥ 90
Elderly (60+ years)	≥ 160			≥ 90
JNC-III (1984)				
General non-elderly population			≥ 90	≥ 95
DM or renal disease				≥ 90
Elderly (60+ years)	≥ 160			≥ 90
JNC-IV (1988)				
General non-elderly population	≥ 160			≥ 90
LVH, DM or renal disease	≥ 160			≥ 90
Elderly (60+ years)	≥ 160		≥ 85	≥ 90
JNC-V (1993)				
General non-elderly population	≥ 140	≥ 150		≥ 90
DM or renal disease	≥ 130	≥ 140		≥ 90
Elderly (60+ years)	≥ 140	≥ 160		≥ 90
JNC-VI (1997)				
General non-elderly population		≥ 140		≥ 90
CHF, renal disease, diabetes		≥ 130		≥ 85
Renal disease w/ Proteinuria		≥ 125		≥ 75
Elderly (60+ years)		≥ 140		≥ 90
JNC-VII (2003)				
General non-elderly population		≥ 140		≥ 90
DM or CKD		≥ 130		≥ 80
Elderly (60+ years)		≥ 140		≥ 90
KDIGO (2012)				
CKD w/albuminuria		≥ 130		≥ 80
CKD w/o albuminuria		≥ 140		≥ 90
Kidney transplant recipients		≥ 130		≥ 80
Elderly (65+ years) w/CKD	≥ 130		≥ 80	
JNC-VIII (2014)				
General non-elderly population, CKD, DM		≥ 140		≥ 90
Elderly (60+ years)	≥ 140	≥ 150		≥ 90
ACC/AHA (2017) "Hypertension" is now anything about 130.				
Low CVD risk (ASCVD score <10%)		≥ 140		≥ 90
High CVD Risk (ASCVD score ≥10%, DM, CKD or CVD)		≥ 130		≥ 80
Kidney transplant recipients		≥ 130		≥ 80
Elderly (65+ years)		≥ 130		

That calculator overestimates the risk of a heart or stroke by 600%. Due to this, a lot of people meet the "10% risk" threshold (e.g., almost any set of values you put into it for an older adult with a SBP of 130).

To quote the 2017 guidelines:¹⁶

"Rather than 1 in 3 U.S. adults having high blood pressure (32%) with the previous definition, the new guidelines will result in nearly half of the U.S. adult population (46%) having high blood pressure, or hypertension."

Note: *This rate further increases with age (e.g., 79% of men and 85% of women over 75 now have hypertension, while 71% of men and 78% of women now meet the threshold to start blood pressure medications).*¹⁷

Unfortunately, "Experts" on guideline panels are paid to create recommendations that result in more and more people taking the drugs, a sadly common phenomenon in medicine.

For example, once statins entered the market (which unlike their predecessors, could effectively lower cholesterol), the acceptable blood cholesterol levels kept on being lowered, and before long almost everyone was told they would die from a heart attack unless they started a statin — despite statins having an almost non-existing mortality benefit (e.g., taking them for five years at best makes you live 3 to 4 days longer¹⁸) and causing (often severe) [side effects for roughly 20% of users](#).

In turn, since so many people have been severely harmed by [the great statin scam](#), more and more people, such as comedian Jimmy Dore, have begun to speak out against this:

[Video Link](#)

The Effects of Hypertensive Medications

In many cases, the actual mechanism of a drug greatly differs from the purported one (e.g., the tiny benefit statins provide is most likely due [to them reducing inflammation](#)).

In the case of blood pressure medications (each of which works in a different manner), very different degrees of benefit are observed with their use, despite producing the same drop in blood pressure. This in turn strongly argues that their benefits are not due to them lowering blood pressure, but rather how each one specifically affects the body. To illustrate:

- A 1997 paper in JAMA reviewed the literature and found significantly different benefits from the antihypertensive drugs depending on which type was used.¹⁹

- A 1998 review found that the (known) cardiovascular benefits of ACE inhibitors were not seen with calcium channel blockers, despite the latter having a more significant effect on blood pressure.²⁰
- A 2000 study of 3577 diabetics found that a specific ACE inhibitor, despite minimally reducing blood pressure (a 2.4 reduction in SBP and 1.0 reduction in DBP) had a massive effect (a 25% reduction) on the risk of a heart attack, stroke, or cardiovascular death.²¹
- A 2007, eight year long (and NIH funded) double-blind study of 42,418 subjects found that when two different types of blood pressure medications were used, there was no difference in their effect on blood pressure but simultaneously found their rate of preventing heart failure varied by 18% to 80% depending on the drug, leading the investigators to conclude: "blood pressure reduction is an inadequate surrogate marker for health benefits in hypertension."²²

Harms of Hypertensive Medications

Blood pressure management typically combines multiple drugs to achieve target levels while switching medications that cause intolerable side effects. This approach is problematic because each drug has markedly different pharmacological and physical effects and should be selected based on individual patient needs rather than simply achieving blood pressure targets.

The most common side effects stem from poor perfusion. Blood pressure medications increase the risk of fainting and frequently cause lightheadedness and falls in older patients with calcified arteries who require higher pressure to perfuse the brain²³ (e.g., a 2014 JAMA study of 4,961 adults over 70 with hypertension found that over three years, 9% experienced serious falls and 16.9% died).²⁴

Note: *An important Israeli study found that discontinuing an average of 2.8 drugs per elderly patient reduced their 1-year death rate from 45% to 21%.²⁵ This is massive, and I believe a key reason for those results was reduced falls (as anti-hypertensives were one*

of the most successfully discontinued drug classes in the study).

Likewise, emergency medicine recognizes that aggressively treating high blood pressure can impair brain blood flow and trigger ischemic strokes. Furthermore, hypertension drugs increase the risk of an acute renal injury by 18%,²⁶ and in patients who have end stage renal disease low blood pressure increases mortality by 39%.²⁷

Note: Low blood pressure is particularly harmful to organs sensitive to reduced blood flow like the brain (e.g., low blood pressure is strongly linked to cognitive decline²⁸).

Finally, each blood pressure medication works differently, offering unique therapeutic benefits but also distinct side effects. Four main antihypertensive drug classes exist:

1. **Diuretics** lower blood pressure by increasing urination through blocking sodium reabsorption in the kidneys. They cause electrolyte imbalances (low potassium affects 8.2% of users), gastrointestinal symptoms due to dehydration, and hypotension (low blood pressure).²⁹ Thiazides also increase uric acid, increasing the risk of diabetes and gout.³⁰

2. **Beta-blockers** slow the heart and reduce contraction force. While beneficial for patients with heart failure, they constrict peripheral arteries. Patients frequently report worsened quality of life from beta blockers, with the most common side effects including:

•Mood swings	•Low blood pressure (hypotension)	•Cold hands or feet.
•Depression	•Sexual dysfunction.	•Nausea
•Extreme tiredness and fatigue.	•An excessively slow heart rate	•Trouble sleeping.
•Dizziness or light-headedness.	•Weight gain.	•Shortness of breath.

3. **Calcium channel blockers** reduce heart contraction force, dilate arteries by relaxing smooth muscle, and slow heart rate. Major issues include edema (affecting 5.7% to 16.1% of users), dizziness, lightheadedness, and constipation.³¹

4. ACE inhibitors block the kidney's blood pressure cascade and are considered most beneficial (commonly prescribed for diabetes and heart failure). The most common side effect is chronic dry cough (ranging from 3.9% to 35% of users³² — this detailed review determined it was 8.0%³³). Other common side effects include headaches, lightheadedness, and loss of taste.

More severe effects include a 26% increased risk of acute kidney injuries (1.5% of users),³⁴ a 103% increased risk of hyperkalemia (4.8% of users),³⁵ and a 19% increase in the risk of lung cancer.³⁶

Under Recognition of Side Effects

While the numbers I just showed are quite concerning, I believe they actually underestimate the rate of side effects, as much of that data comes from industry clinical trials that deliberately find ways to downplay their drug's side effects. Accordingly, I believe patient surveys provide a substantially better perspective on the incidence of symptomatic side effects. Consider this 1995 Swedish survey, which found roughly 1 in 5 users experience side effects:³⁷

	Numbers	Proportion with side-effects (%)		Proportion with side-effects (%)
Monotherapy				(n = 394)
Antihypertensives (C02)	4	0	Miscellaneous symptoms	
Diuretics (C03)	28	21.4	Dry mouth, dizziness, visual disorders, headache and cough	10.4
Beta-blockers (C07)	92	17.4	Emotional distress	
Calcium-channel blockers (C08)	44	18.2	Insomnia, tiredness, and depression	5.6
ACE inhibitors (C09)	48	12.5	Peripheral circulatory symptoms	
Fixed-dose combination antihypertensives	4	0	Cold hands and feet and swollen ankles	5.3
Two antihypertensive drugs	134	23.1	Gastrointestinal symptoms	
Three or more antihypertensive drugs	40	27.5	Nausea and constipation	1.8
Total	394	19.8	Impotence ^a	6.0

^aAmong men (n = 167).

Likewise, a study of 370,000 patients under 65 between 2007-2014 found 23.5% stopped taking the drugs within 270 days of starting them, while 40.2% of those who continued often skipped the medications.³⁸

Given such a high discontinuation rate of these drugs, one of the most surprising things about blood pressure drugs is how little awareness exists regarding their side effects, especially amongst doctors (e.g., the article I just cited acknowledged side effects were a reason for discontinuation but insisted it was due to patient ignorance about the importance of the drugs).³⁹

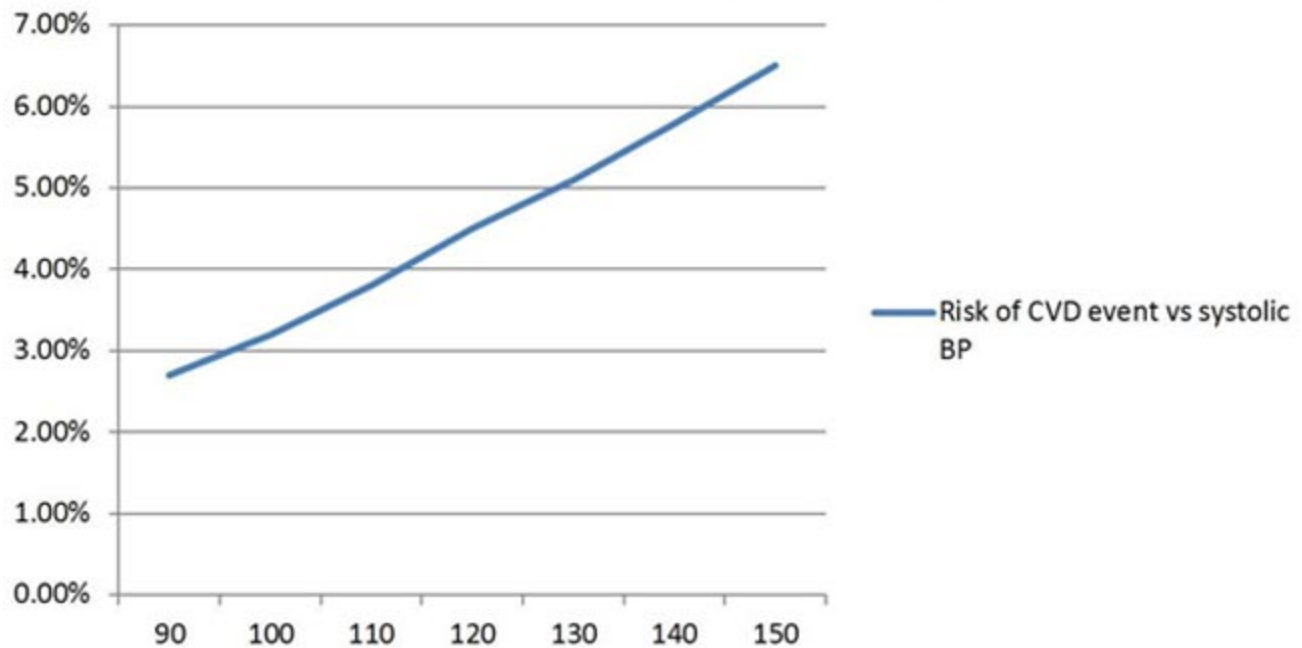
All of that was best shown by this 1982 study (which would not be repeated in today's political climate) that compared how patients, their families, and their doctors felt about the effects of these drugs on them.⁴⁰ It found:

IS QUALITY OF LIFE IMPROVED, DOES IT STAY THE SAME, OR DOES IT GET WORSE ON BLOOD-PRESSURE LOWERING DRUGS?								
IMPROVED			STAYS THE SAME			WORSE		
Doctors	Patients	Relatives	Doctors	Patients	Relatives	Doctors	Patients	Relatives
75	36	1	0	32	0	0	7	74

Conclusion

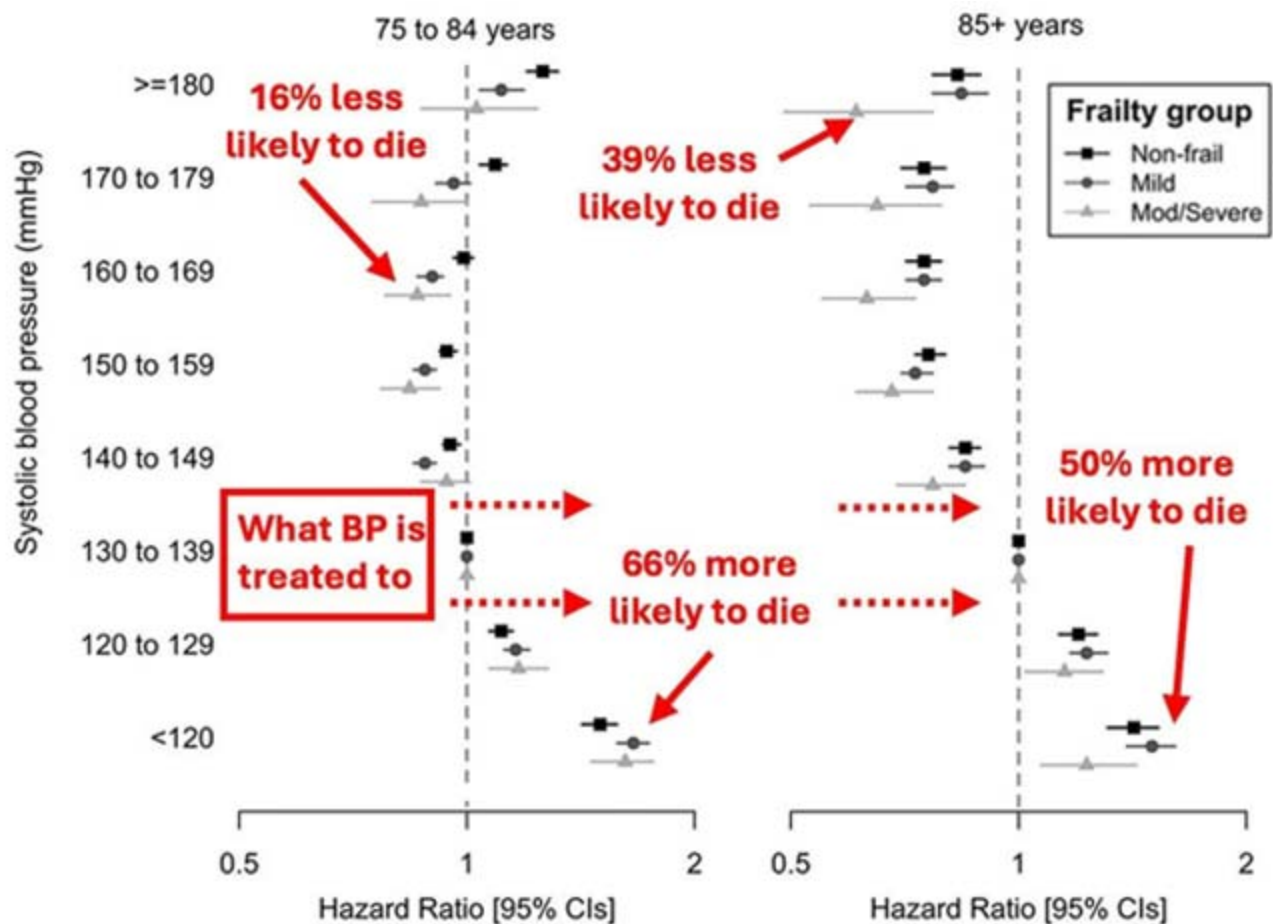
Many problems in medicine arise from illogical beliefs that become religious dogmas that can never be questioned (e.g., [this perfectly characterizes vaccinology](#)). Dr. Malcolm Kendrick, in turn, synopsisized the core issue here; medicine assumes lowering blood pressure always follows a linear benefit.⁴¹ So despite it being well recognized that a blood pressure below 90 is dangerous, and no one has ever proven that benefits result from dropping a blood pressure in the 90s,⁴² here's what the models say:

CV event risk in next 10 years vs systolic BP



So, medicine continues to hold to this belief, despite it being overtly disproven by things like this study of 415,980 patients' health records:⁴³

This is regrettable because the same results have been observed with more modern technologies. For example, consider the results of this study of 415,980 patients obtained through their electronic health records, which again shows that rather than being linear, an age dependent threshold exists which is not at all recognized by the guidelines:⁴⁴



When I initially published this article in July 2024, I genuinely wondered if they would drop the blood pressure thresholds again, as the existing trend suggested it, but the current (2017) thresholds were already on the border of causing complications for a significant portion of patients, making it unclear if they could get away with lowering it again.

Just a year later, they did, and now all blood pressures over 120 are "elevated," 130/80 is the universal threshold for treatment and certain "high risk" patients are encouraged to go below 120/80.⁴⁵

This abhorrent policy, in turn, touches upon a deeper truth. Every human being is different, and as long as medicine reduces them to fixed variables within a rigid algorithm, it will inevitably inflict many people with inappropriate care that harms them. To illustrate, in certain cases, treating blood pressure with the correct medication class that can mitigate the patient's underlying issue is necessary.

Yet, as I've shown in this article, rather than guiding physicians [towards identifying those situations](#), the guidelines simply focus on having everyone meet a numerical value and viewing all blood pressure medications as nothing more than a way to meet that target.

Fortunately, thanks to the MAHA moment, we have at last reached a point where not only is the corruption that continually births these disastrous policies being exposed to widespread scrutiny, but the real solution, empowering each person to take charge of their health (and adopt the approach that meets their unique health needs) is now being promoted by the Federal Health Agencies. It is my sincere hope that this article has provided you with the tools to do just that for your circulatory health.

Author's Note: *This is an abridged version of [a longer article](#) about the blood pressure scam which goes into much more detail on the points covered here and natural therapies for blood pressure which restore circulatory health (which can be read [here](#)). Additionally, [a companion article](#) on the dangers of statins and natural ways to treat heart disease can be read [here](#), along with an article on the critical importance of salt and how to find healthy salt that can be read [here](#).*

A Note from Dr. Mercola About the Author

A Midwestern Doctor (AMD) is a board-certified physician from the Midwest and a longtime reader of Mercola.com. I appreciate their exceptional insight on a wide range of topics and I'm grateful to share them. I also respect AMD's desire to remain anonymous since AMD is still on the front lines treating patients. To find more of AMD's work, be sure to check out [The Forgotten Side of Medicine](#) on Substack.

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