



# Hypertension in America: Failure to See the Dancing Gorilla

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## **There is a Way to Fix the Hypertension Crisis. New Guidelines Won't Do It.**

In a famous psychology experiment, subjects watch a video of students, moving in circles, pass two basketballs around. The task is to count the number of passes that are made. At the end of the drill, the subjects are asked if they observed anything “unusual.” More than 50% failed to notice a man in a gorilla costume dancing through the middle of the basketball passers. The phenomenon of seeing what we want to see, rather than what is in front of us, is called “selective inattention.”

The American Heart Association recently announced new blood pressure guidelines. Using the “old” definition of hypertension – blood pressure over 140/90, there are 75 million hypertensive American adults of whom 37 million are undertreated. Doctors in offices have armies of hypertensives to treat. As Chobanian noted in “The Hypertension Paradox,” the prevalence of hypertension continues to rise even while treatment is more effective.

[Soon there will be 100 million hypertensive patients in the U.S. Click To Tweet](#)

The new definition of “normal” blood pressure will be >130/80, which will expand the pool of hypertensives to 100 million. As many as 50 million who will be undertreated. Hypertension treatment is amazingly effective. Missing the opportunity to treat 50 million people is shameful. The cost is spectacular. One might conclude the old system is not working. Let us examine why; let’s leave selective inattention behind and try to see the gorilla in the room.

## **Small Changes, Big Results**

Treatment of hypertension has significant returns for relatively small changes in blood pressure. A 5-mmHg reduction in blood pressure, either by lifestyle modification or medication, can reduce stroke risk by 34%, and heart disease risk by 21%. In a study of a group of 73,000 Finnish men and women with hypertension who were followed for 10 years, 2,144 died from stroke and 24,560 had non-fatal strokes. Hypertensive therapy reduced the risk of disability by 60% and risk of death by 90% for patients who were correctly diagnosed and who took their medication. In terms of cost, hypertension is a major contributor to stroke, the leading cause of disability, and heart attack, the leading cause of death. It also contributes to approximately ¼ of Alzheimer’s type dementia. Estimate for total cost of care and disability are problematic because each disease has multifactorial risk factors; estimate range as high as one out six health care dollars, or ½ of a trillion dollars.

[About 25% of patients with hypertension never get screened. Click To Tweet](#)

Our hypertension system is flawed from intake, to diagnosis, and finally management. About 25% of patients with hypertension never get screened. When patients do get to the office, office blood pressure measurements are frequently wrong. A study by Kaiser Permanente of 2.3 million patient visits concluded that simple activities, like talking during the blood pressure measurement, a distended bladder, or an unsupported arm, or back, all result in an inaccurate measurement by as much as 10 mmHg. Inaccurate starting points are the first steps to bad results.

## White Coat Effects



About 15% of patients have "white coat" hypertension.

The anxiety of being in a doctor's office is enough to trigger elevated blood pressure, which is not found at other times. These people reap no benefit but incur adverse medication reactions and the anxiety of being labeled as "sick." Their stories, internet amplified, contribute to distrust of organized medicine and hypertensive medications.

Conversely, there are some patients with a normal office blood pressure, but who are significantly hypertensive elsewhere in the day. This is called "masked" hypertension. Lastly, normal blood pressure "dips" during sleep; unfortunately, some patients have "reverse dipping" and this represents extremely high risk. Altogether, these conditions affect between 20% and 30% of office-based patients.

## Medication Evasion

Lastly, patients don't take their medications. About 33% of all prescriptions for all medical conditions go unfilled. However, hypertensive patients fail to fill prescriptions 45% of the time. The cause of stroke for a frightening 80% of patients in the Finland study was non-adherence to medication. The most frequently stated reason was difficulties with the health care system. Adverse medication reactions were the second most frequent reason. However, 50% of the patients in Finland were on only one medication - first tier medications have low adverse reaction profiles. One pill a day to cut the risk of stroke in half seems like a reasonable trade-off? What led to this behavior?

[About 33% of all prescriptions for all medical conditions go unfilled, and hypertensive patients fail to fill prescriptions 45% of the time. Click To Tweet](#)

## Education as Prevention



The authors of the Finnish paper concluded that the

amount of education about the risk of hypertension (hypertension was the most important factor in improving adherence).

Sample patient education: “Hypertension has no symptoms. You will feel fine until disaster strikes as a stroke or heart attack most frequently. Just considering stroke, not treating hypertension triples your risk of stroke. The risk of death from stroke within 30-days is 1/4, at one year it is 1/2, and 2/3 at five years. Of those who survive, 1/3 are permanently disabled. Most hypertensive medicines are taken once daily, and most side-effects you experience will be self-limited and will be gone in 30 days. The trade-off is one pill a day — no more inconvenient than a multivitamin, and you cut your risk of a nasty death or a lifetime of disability that would impact you and your family in substantial ways. Next visit we will talk about heart attack, which is a little more complicated.”

### **No Time to Teach**

That doesn't seem hard? Of course, it doesn't leave time to answer questions, offer reassurance, or discuss options. Here in the US, the most recent AMA survey on office practice showed that primary care doctors now spend 27% of their time speaking with patients. They spend the majority of their time on electronic medical records and administrative tasks. Immediate Past President Steven Stack of the American Medical Association said, “This study reveals what many physicians are feeling — data entry and administrative tasks are cutting into the doctor-patient time that is central to medicine and a primary reason many of us became physicians.”

### **Defusing the Time Bomb**

So, doctors have no time to educate patients about their hypertension, and lack of education is the key to preventing uncontrolled hypertension. The steady erosion of the doctor-patient relationship leads to patients, who, while they still answer surveys saying they like and trust their doctors, don't get enough education to understand the time bomb that is called hypertension and engage in prevention.

[Lack of education is the key to preventing uncontrolled hypertension Click To Tweet](#)

### **Fix the System**

Welcome to the dancing gorilla in the room. In the instance of hypertension, we have created bigger and bigger health care networks that serve patients and doctors less and less. In the U.S., we have the highest healthcare expenses among developed countries and the worst outcomes.

### **Where to Now?**

So, if guidelines haven't worked, why go make new guidelines? Doing the same thing and expecting a different result is a definition of insanity that is attributed to Albert Einstein.

[Doing the same thing and expecting a different result is a definition of insanity. Click To Tweet](#)

The doctors treating hypertension are very competent. They are in a system that fails them and the patients they treat, as well as the enormous numbers of patients who don't ever get screened. A system based around office blood pressure measurement, education, and treatment will fail.

[A system based around office blood pressure measurement, education, and treatment will fail. Click To Tweet](#)

Starting ten years ago, however, innovations in blood pressure screenings, diagnosis, and

management began in countries around the world. We will visit their approaches in a future newsletter, including accurate ways you can take your blood pressure at home.

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