60 WAYS TO LOWER YOUR BLOOD PRESSURE

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Welcome!

*If you live long enough, somethin’s gonna get ya.*

Small comfort, but nonetheless true.

We’re living longer now, years longer than our forefathers and mothers of just a few generations ago. That’s a real blessing. But with that blessing comes some difficult challenges. Even if “our days may come to seventy years, or eighty, if our strength endures” (Psalm 90:10), most of us will experience health problems that weren’t common a couple of centuries back. Various cancers, dementias, kidney diseases, arthritis, strokes, heart disease—it takes time to develop these things, and until fairly recently, we weren’t getting old enough to experience them very often. But now we are, and we need to pay attention to how we live and to the things we do and don’t do.

The way I look at it, each of us needs to give our self the best chance of enjoying good health for as long as we can. A lot of things remain out of our control: our genes, unforeseen accidents, and bad luck. But many factors affecting our health are within our control, and we need to pay attention to them.

You know the list. Proper diet, exercise, not smoking, getting a good night’s sleep, knowing your blood sugar, cholesterol, and lipid numbers and keeping them in line, alcohol only in moderation, if at all. And, of course, there’s the “silent killer”—high blood pressure. That’s what we’re going to tackle in this book. Before we go any further, do you know your blood pressure numbers? Do you know what’s normal and desirable, and
why it’s important? Are you aware of the bad stuff that happens when your BP is sky high? We’re going to explore those issues and many more. And we’re going to stress accepting responsibility for and taking control of your health, including your blood pressure.

There’s a lot of good news here. We can make sure that our pressure is normal and that we keep this silent killer at bay. It will require some effort, but you can get it done. Now’s the time to take the important steps in assuring you give yourself the best chance to live as long and as well as you can.

Of course, our health and well-being is not wrapped up in our blood pressure, or any other measure for that matter. We are physical creatures to be sure, but we are also emotional and spiritual beings. It’s all connected and tied together. We’ll look at how that works and why balance is so important.

To get things started, it’s time to meet Dave Jernigan. If you read 60 Ways to Lower Your Cholesterol, you’ve already met him and his wife, Lisa. He’s typical of many of my patients—maybe even you. He had to deal with his abnormal lipid levels, and he got that done. Now it seems his blood pressure is creeping up, something new to wrestle with.

Sound familiar? Let’s find out.
“Okay, Doc, give me the bad news.”

The forty-six-year-old sat on the edge of the exam table, his hands tucked under his dangling legs. He was alone this time.

“It’s not all bad news, Dave.” I tossed his chart on the countertop, pulled over the rolling stool, and sat down. “Your cholesterol is still in good shape, and you’ve lost a couple of pounds since you were last here. It’s your blood pressure now that we have to work on.”

“That’s what I figured,” he said. “Always something. As soon as you get one thing fixed, another pops up. Anyway, how bad is it?”

I appreciated his frustration with some of the challenges of getting older. Yet he hadn’t had anything really bad happen to him, and he was in good health. It was my job to help him stay that way.

“The silent killer, don’t you guys call it?” He managed a wry smile. “Slips up on you before you know it and then wham!”

“Yeah, this is serious business, Dave. Your blood pressure is 152 over 98. That puts you in the hypertensive category, but it’s not dangerous. Not yet.”

“What do you mean not yet? What’s the worst that can happen? And when do I need to start worrying?”

“You don’t want that kind of pressure hammering away at your brain and heart and kidneys, so we need to do something about it. But it’s not at the point where something catastrophic is going to happen.”

“Not today anyway. Right?” Dave leaned forward, his eyes unblinking. “Can we handle this with medication? A pill or something?”

“Okay, Doc, give me the bad news.”
When we had talked about his cholesterol and how to get it under control, he didn’t like the idea of being on prescription medication every day, maybe for the rest of his life. He had wanted to try changing his diet and increasing his exercise to see if that would work. When it hadn’t, he reluctantly started taking one of the statin drugs, and his lipids quickly improved. Now he wanted to jump straight to a pill.

“Dave, you’re upset about this. Tell me about it.”

He sighed and looked at the floor. “I have an uncle…had an uncle. Bradley was my father’s brother. He lived out in Seattle and we used to go visit when I was growing up. He had this fishing boat, and we would go out on Lake Washington and spend hours, just the two of us, fishing and talking. I remember Aunt Sue would always get on him and remind him to take his medicine. He had high blood pressure and was on a couple of different pills. Uncle Bradley had been a three-letter athlete in high school and was always active, always in good health. Or at least I thought so. He didn’t like having to take his medicine every day and most days he didn’t. Aunt Sue would remind him, and he’d just wink at me and shake his head.”

Another sigh. “Dad got a call from Aunt Sue one night, and we flew out the next morning to Seattle. Uncle Bradley had been working on his boat and collapsed on the dock. A stroke, the doctors said. Massive cerebral hemorrhage. His blood pressure was sky-high and…He was in the ICU for two weeks. Never opened his eyes, never said another word.”

A silent moment passed. “I loved the guy, Doc. I was only twelve years old, but I promised myself that would never happen to me. That left a big hole in my heart, and I don’t want to cause anybody that kind of pain. Not if I can help it. So, write me a prescription and let’s get started.”

“I understand what you’re saying, Dave, but let’s not rush into anything. Your blood pressure level has to be addressed, but it’s not an emergency. If we can get it under control with some further lifestyle changes, you might not need to be on any medication. There are some things we can do, things that should be effective before we write that prescription.”

“Okay, Doc, but let’s get started sooner rather than later. What do I need to do?”

Dave Jernigan was motivated. Not everyone who comes to the office brings that essential factor with them. And many don’t appreciate the risks and perils of the silent killer. Lucas Saunders didn’t.
Lucas Saunders and his wife, April, walked through the triage hallway, following their nurse to room 5. He nodded as they passed me at the nurses’ station. Fifty, maybe sixty years old, and he didn’t seem to be in any distress. The triage nurse handed his chart to the unit secretary. “Just some upper back pain from working out too much. Another New Year’s resolution gone bad. He wanted to lose some weight and get in shape, but thinks he’s overdone it.” She turned and walked to the medicine room.

A few minutes later, I pulled the curtain of room 5 closed behind me. “Mr. Saunders, I’m Dr. Lesslie. What can we do for you this afternoon?”

He sat on the stretcher, legs hanging over the edge, and hunched his shoulders. “I must have pulled something in my upper back—between my shoulder blades. Started using some free weights a couple of weeks ago—flies, presses, that kind of thing.”

“And he’s done too much,” his wife said from the corner of the room. “I told him to go slow, to take it easy. Rome wasn’t built in a day and all that. But he wouldn’t listen. He had a target and he was determined to reach it.”

Lucas hunched his shoulders again. “I’m paying the price now. Hurts every time I move or take a deep breath. And it’s getting worse.”

“When did this start?” I walked to the counter and leaned against it. “Not long after I started my new exercise routine. About three weeks ago. It was just achy at first, then started getting sharp.”
“That was about the time we went to see Dr. Daniels, his chiropractor,” April said. “He’s a friend of ours and we thought he might be able to help.”

I knew Bill Daniels and had sent him several patients through the years. He was good with musculoskeletal problems and knew when something needed to be passed on to an orthopedist or neurosurgeon.

“He helped at first,” Lucas said. “Seemed to be getting better after a couple of treatments.”

“But you didn’t listen to him,” April scolded. “He told you to back off the exercising until things were resolved, but you just kept at it.”

Lucas shook his head. “Like I said, it was getting better, but then it seemed to flare up again and got worse.”

“So that’s what brings you to the ER today.” I glanced at his record again. No fever, his pulse was normal at 76, but his blood pressure was elevated—160/100. He wasn’t taking any medication. “Tell me about your blood pressure. Does it usually run this high?”

“The nurse said it was 160 over 100.” April shook her head. “That’s good for Lucas. It usually runs higher, but he won’t do anything about it. His doctor wrote a prescription for some blood pressure medicine but he refused to have it filled. He said he could get it lower with exercise and losing some weight.”

“No other medical problems, Mr. Saunders? You don’t smoke or have diabetes or an elevated cholesterol level?”

“No, all that’s fine. Just the blood pressure, but it’s coming down. I think I can get it to normal if I can keep on losing some weight and continue exercising. That’s why I need to get my back feeling better.”

“Well, let’s take a look at you and see what we can do.”

I stood, took a step toward the stretcher, and for the first time noticed the large folder in his wife’s hands. It looked like an X-ray jacket.

“Tell me about that,” I pointed to the folder. “Are those your husband’s X-rays?”

April held the folder out to me. “Yes, Dr. Daniels made these yesterday. He was concerned about a possible fracture in his spine from all the weight lifting, or maybe something going on in his ribs or lungs.”

“Compression fracture was what he was worried about,” Lucas added. “But he didn’t see anything. Said the bones looked fine, but he wanted someone to take a look at me, since I wasn’t getting any better.”

“Getting worse,” April said.
I took the X-ray folder, set it on the countertop, and examined Lucas Saunders. His lungs were clear and his heart rate was regular, with no extra sounds that might suggest longstanding high blood pressure. I had him stand and turn around, allowing me to palpate his back.

“This is where it hurts?” I kneaded the area between his shoulder blades—the rhomboid muscles—where most upper back strains occur.

“That’s the spot, Doctor, but it doesn’t hurt when you press on it—only when I move around.”

“What about this morning when you were sitting still and you had the pain?” April reminded him. “You weren’t moving around then. And what about the numbness in your right leg the other night?”

“That was just from sitting in a funny position,” he said. “My leg must have gone to sleep. It was fine after I got up and moved around.”

“How often has that happened?” I motioned for him to get back on the stretcher. “Is it numb now?”

“Just a couple of times, but only over the past few days or so. And it’s fine now.”

He lay on his back on the bed and I checked the pulses in his wrists and over his carotids. They were equal and normal. Then I checked his femoral pulses and my heart rate quickened. Nothing on the right, and maybe something faint on the left. His abdomen was soft, and I didn’t feel any pulsing mass. But an aneurysm of his abdominal aorta wouldn’t be causing his upper back pain.

I turned and grabbed the X-ray folder on the counter. “Let me take a look at this and I’ll be right back.”

Two nurses standing by the nurses’ station looked up as I hurried past them to the X-ray viewing box and snapped the films into place.

My heart flew into my throat. It wasn’t a compression fracture or a rib problem or something going on with his lungs. An angry aneurysm bulged in his thoracic aorta, threatening instant death should it suddenly rupture. There was probably some dissection of the artery itself, causing the lack of blood flow into his legs, and the numbness.

“We need an IV stat in room 5, pre-op labs, and type and cross for eight units of blood. And get the thoracic surgeon on the phone.”

The nurses sprang into action, and I rushed back to room 5 and pulled the curtain open. Moments. That might be all we had.
A Little (Uncomfortable) History

Hard Pulse Disease.

That’s one of the earliest names for what we now know as hypertension—high blood pressure. Descriptive and accurate. Early physicians determined that if one of their patients had an abnormally strong and pounding pulse, they probably weren’t going to do very well. And they didn’t. The same is largely true today.

But when did we come to understand that this hard pulse was something bad? It seems the answer is thousands of years ago. Early Egyptian records indicate an awareness of this problem, and even had some common treatments for it. On the other side of the globe, Chinese practitioners observed the same findings and developed a whole field of medicine revolving around the study of the pulse—much of which exists to this day.

But it wasn’t until the 1600s and 1700s that real progress was made in this area and in medicine in general. Physicians in England and Western Europe studied the complexities of the human circulatory system and began to develop an understanding of basic anatomy, followed by physiology (how various organs and systems work), and then pathology—what can go wrong. William Harvey was one of these gentlemen, as was Stephen Hales and later, Richard Bright. Many of the names of these early pioneers have been attached to common diseases that we see today. Bright studied the inflammatory conditions affecting the kidneys, with “Bright’s disease” still used to describe a form of nephritis, the malady that ended the life of Wolfgang Amadeus Mozart.
In the mid-1700s it became possible to measure a person’s blood pressure, using some crude instruments—prototypes of the meters we use today. Once this was doable, the concept of “high blood pressure” gained traction, and by the late 1800s, we began to figure a few things out. Cardiac hypertrophy (an “enlarged heart”) was found to be associated with hypertension, as was “hardening of the arteries.” It came to be generally appreciated that hard pulse disease—and by extension high blood pressure—was something bad that needed to be corrected. But how?

This is where things get interesting but a little uncomfortable. Today, we physicians are able to call on a wide array of blood tests, imaging (X-rays, CTs, and MRIs), and an ever-widening selection of medications when we treat our patients. Should we run out of options, we can always fall back to “I think it’s time to send you to a specialist.”

Such was not the case in the not-too-distant past. For hundreds of years—maybe a couple of thousand—the number one treatment physicians turned to was... bloodletting. Cupping was another frequently used term, probably because it was less intimidating. Belly pain? Let’s take off a little blood. Gout? No problem. A liter or so should do it. Asthma? You get the picture. It seems the accepted philosophy in the medical profession was to do something. And since there weren’t many somethings to choose from, bloodletting was the state-of-the-art treatment for a host of infirmities.

All of this raises the question of how much blood was appropriate to be drawn. I doubt that a person suffering with the ague or chilblains would present to the person doing the bloodletting a prescription for “half a cup please” or “remove one quart.” Not an exact science. And apparently, if enough blood was removed to induce lightheadedness or even shock (which happened all too frequently), so much the better. It must be working.

In fact, that’s why bloodletting was used in the treatment of “hard pulse disease,” and even later, when we knew it as hypertension. If enough blood was removed from the circulatory system, cardiac output would fall and the pulse would become weaker. Something good must be happening. The problem was that our bodies make more blood under stress, intent on restoring the original volume in our blood vessels, and thus causing the return of the hard pulse.

And then we have our friend the leech. While slower in the removal of
blood than simply cutting a vein, if enough of these critters were attached to a person’s body, it was possible to remove enough blood to “balance the humors.” They really didn’t cause any complications (such as infection), and we have learned much from their many complex chemical substances—some of which include anticoagulant enzymes that researchers have utilized in a widening range of diseases.

Regarding the correct number of leeches to employ, it might have been a little like the recommended amount of daily prunes. Three enough? Five too many? But I’m sure there were guidelines to follow for certain diseases and complaints. And just so we know how common these were used, it seems that in the 1830s, the French imported more than forty million leeches each year for medical purposes. And you thought getting blood drawn for your annual exam was tough.

So when did we give up on cupping and leeches and reach for the prescription pad? That would be sometime in the middle of the last century. Some of the early drugs were quite effective in lowering blood pressure, at times to the point of shock and death. Several were abandoned until the development of hydralazine and reserpine, both still in use today.

Finally, and quite by accident, chlorothiazide was discovered. This was the first thiazide drug (what we now know as “water pills”)—safe and effective and quickly becoming readily available. Not long after, the pharmaceutical landscape exploded, providing us with a wide range of choices for the treatment of hypertension.

But we need to be eternally grateful for the important legacy of our leeches.