

Natural Treatments for High Blood Pressure

According to the Centers for Disease Control and Prevention (CDC), about one in three adults in the United States suffer high blood pressure.ⁱ Two of every three people over age 60 have it.ⁱⁱ That means it is likely that most people over age 60 are on at least one high blood pressure medication. In this first article in a series on natural treatments for hypertension, you'll learn the mechanics of your vascular system and the problems created by hypertension. Then you can better understand how to reverse the causes of hypertension.

Your Vascular System

Your heart beats more than 100,000 times each day, pushing blood against your arterial walls with each beat. The pressure inside your arteries and arterioles derives from two components:

1. The amount of blood being pumped with each heartbeat (heart stroke volume) and, therefore, being pushed throughout the vascular system (blood volume).
2. The rigidity or elasticity of the blood vessels. If the vessels are healthy and elastic, then the stretching of the vessels lessens the pressure of each pulsation (systolic pressure) as well as the base pressure between pulsations (diastolic pressure). Fixed or rigid vessels, usually from atherosclerosis or constant muscle contraction from other causes, increase the pressure.

The Problem of Hypertension

High blood pressure is not only common, it also leads to serious health conditions if it isn't reversed or controlled. It greatly increases the risk of many diseases, such as brain stroke, vascular dementia, heart disease, eye problems and kidney failure. That's because, over time, high pressure in the vascular system contributes to the inflammatory process of atherosclerotic plaque deposition, which then narrows, thickens and hardens the artery walls. This, in turn, pushes back against the heart, leading to congestive heart failure. People with uncontrolled high blood pressure develop heart failure six times more frequently than controls. Just about every organ is susceptible to damage from high blood pressure, since blood vessels supply all body organs.

Moreover, the average cost for of medications and doctor appointments for just the simple problem of hypertension is about \$1,100 per year per person. There is even a bigger cost than just the money: It leads to the long-term accumulation of unnatural metabolites in your body, medication side effects and possible adverse events.

It seem anyone taking prescription medication to lower blood pressure would want to safely eliminate the need for them, not only as a cost-effective measure, but also to reap the benefits of a holistic treatment approach.

Causes of 'Essential Hypertension'

Only 10 percent or less of cases of hypertension are either from disease states such as kidney disease, lupus, Cushing's disease or from certain medication side effects or drug use. The other 90 percent of cases originate in what is termed essential hypertension. This takes place when there is no readily identified cause for it. However, there really are several causes you deserve to know about, but that are not addressed in conventional medicine teachings. These are more than just genetic contributors. I am referring to circumstances you can do something about. The more obvious ones include:

- **Smoking:** The nicotine in tobacco smoke directly stimulates atherosclerosis formation; decreases oxygen to the heart, causing a reflex increased pressure; and triggers vasospasm (smooth muscle contraction).
- **High salt in your diet:** If you are salt-sensitive, consuming too much salt increases your blood pressure. You know you are sensitive if you swell up or if your blood pressure increases when you eat salty food. Common table salt is made up of 97.5 percent sodium chloride and about 2.5 percent chemicals from processing. It is not your healthiest salt choice. Sea salts can be only 84 percent sodium chloride and 16 percent mineral electrolytes, including potassium, magnesium, calcium and other nutrients. Therefore, it can be used differently by your body. Reportedly, natural sea salts don't cause swelling like sodium chloride does.
- **Sedentary lifestyle:** Not exercising regularly contributes to obesity and inflammatory mediators that trigger high blood pressure. The heart weakens, and the blood vessels become less flexible and resilient.
- **Alcohol consumption:** Not only heavy consumption, but also moderate consumption over time increases blood pressure, according to studies.^{iii, iv, v}

Now let's look at more of the causes behind essential hypertension that don't get talked much about in the textbooks or online.

The first category is inflammation.

Inflammation

When there is chronic low-grade inflammation affecting the blood vessel walls to any degree, the processes of atherosclerosis (hardening of the arteries) is

initiated or accelerated. Additionally, chronic low-grade inflammation releases inflammatory chemicals that tighten (constrict) your vessel wall's smooth muscle.

Let's consider all these as examples of potential contributors:

- Sleep deprivation or poor-quality sleep.^{vi}
- Obesity, which raises blood volume, increases insulin production (which is inflammatory), and increases inflammatory cytokines.^{vii}
- Autoimmune inflammation, which can be triggered by poor intestinal health from a leaky gut, certain food allergies and even America's hybridized wheat products.^{viii} The process behind autoimmune inflammation is described in more detail in my article about allergies and chronic diseases.
- Antibiotics, which promote overgrowth of resistant bacteria, yeast and parasites.
- Anti-inflammatory medications.
- Chemical food dyes and preservatives.
- Digestive enzyme deficiency and low stomach acid.
- Foods that are high in refined sugars can be inflammatory.
- Cow milk protein (dairy), which can be antigenic.
- Chronic low-grade infections.

The lifestyle contributors of inflammation are real, but often overlooked, causes of essential hypertension. Hypertension can be viewed as a probable sign that something in your body is out of balance and that inflammation is brewing somewhere.

Hormone Imbalance And Hypertension

There is an important hormone that contributes to high blood pressure, albeit indirectly: insulin. Insulin is a hormone made by your pancreas to control blood sugar. However, through various factors (mostly diet, stress and genetics), insulin resistance can develop into a significant problem.

Insulin resistance and the immune system changes associated with metabolic syndrome contribute to chemical mediators of inflammation. In my previous article, I discussed many other inflammatory contributors to essential hypertension.

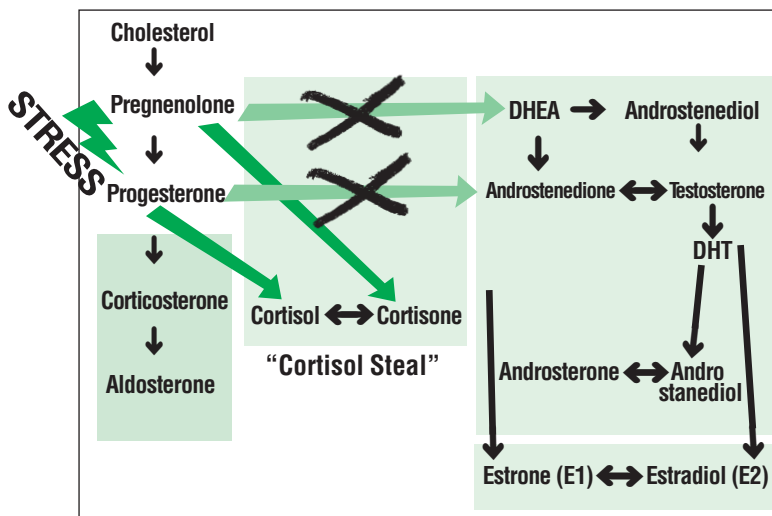
More significantly, there are some key hormones that are directly involved with your blood pressure.

These are thyroid, aldosterone and cortisol. The neurotransmitters epinephrine (adrenaline) and norepinephrine (noradrenaline) also contribute directly.

Three Influential Hormones

Low thyroid hormone affects every body tissue because it largely controls your metabolic rate, which transforms the function of these tissues and organs. When low, your metabolic rate not only makes you tired, sensitive to cold, constipated, subject to weight gain or depressed, it also affects your cardiovascular system. An easy way to correct hypertension and hypercholesterolemia when you have low thyroid hormone is with natural thyroid hormone supplementation.^{ix}

Aldosterone is the hormone that directly controls blood volume through its effects on salt and water retention or elimination via your kidneys. This hormone is made from progesterone in your adrenal gland. The reason this matters is that aldosterone secretion is closely tied to the other hormones produced in your adrenal glands: progesterone, cortisol, DHEA, testosterone and the estrogens. Under chronic or frequently stressful conditions, the production of aldosterone is affected by a “cortisol steal” effect as shown here:



Cortisol Complications

The hormone cortisol is directly involved with blood pressure control. When cortisol is chronically elevated (due to stress), it:

- Triggers hyperglycemia and leads to high insulin levels and insulin resistance.
- Promotes central obesity (belly fat).

- Lowers thyroid hormone by blocking the conversion of T4→T3 in your liver.
- Leads to memory impairment, hyperlipidemia and immune system suppression (a prednisone effect).
- Causes hypertension largely by stimulating adrenaline (epinephrine) release that leads to the “fight or flight” sympathetic nervous system response. This response increases the rate/force of contraction of your heart muscle and constriction of your blood vessels. Adrenaline also causes dilation of your small lung airways, lipolysis (use) of fat cells to produce glucose, increased metabolic rate, breakdown of muscle glycogen to make glucose for energy and dilation (widening) of your pupils.

Emotional Issues

Believe it or not, your emotional stress (which you allow into your mind and body) really does contribute significantly to hypertension. Your stress levels trigger the secretion of cortisol. If your stress levels are high enough (or if you cannot produce enough cortisol), it triggers the secretion of adrenaline. Moreover, if high cortisol becomes a consistent need (because you allow stress into your mind so often or for so long), the “cortisol steal” effect cause your body to down-regulate the production of your sex hormones (including DHEA, testosterone and the estrogens).

Consequently, physical and emotional stresses quite dramatically contribute to hypertension.

Mind Over Pressure

The smooth muscle tone or tightness of arterial blood vessels increases when you get angry, scared or stressed. Conversely, the nerves to your arterial wall muscles relax when you lower your stress.

That is why stress-reducing techniques are a vital part of treating high blood pressure—for anyone. They can be as simple as just slow, deep-breathing exercises or other relaxation techniques. Let me provide you more ideas to started thinking about possibilities that would work best for you:

- Daily moderate exercise that you enjoy such as walking.
- Deep, slow breathing for 10 minutes while visualizing something you enjoy, with no stressful distractions. Do this whenever stress builds up and you are feeling anxiety or any other negative emotion.

- Take more time for yourself: Sleep in, get a massage or spoil yourself regularly.
- Spend an evening out with a loved one or favorite friend; open up and share your thoughts and feelings.
- Sexual intimacy with your committed companion.
- Meditation.
- Journaling to soft music about a topic in your life of most concern.
- Listen to your favorite music often to lift your mood and inspire your personal power.
- Find inspiring audio instructions from authors such as Wayne Dyer, Eckhart Tolle, Esther Hicks (*Teachings of Abraham*) and Michael Beckwith. You can find many on *YouTube.com* such as one entitled “A New Resolve with Esther Hicks.”
- Yoga, tai chi or other meditative exercises.
- Seek out therapists who do energy healing such as reiki, body talk, quantum touch, emotional clearing, cranial sacral therapy or massage therapy.
- Drink calming herbal teas such as chamomile, peppermint, lemon balm, kava kava, passionflower and valerian.
- Use essential oils such as a proven effective blend^x of lavender, Roman chamomile and neroli (in a 6:2:0.5 ratio) or others such as sweet marjoram, ylang ylang, bergamot or frankincense. (Do not make direct contact with undiluted essential oils.)

Thoughtful Reflections

Remember that if you continue to think about the unhappy or worrisome circumstances in your life, these translate to stress to your physical body. The negative emotions (frustrations, fear, anger, guilt, etc.) you carry in your body are not only a major cause for high blood pressure, but can also lead to the chronic diseases that spring out of stress. (I’ll cover these in an upcoming article on adrenal fatigue.) It can also cause great unhappiness. The happy, optimistic and creative thoughts you carry will become your beliefs. What you think about and feel about you bring about!

I’ve witnessed this phenomenon with my own blood pressure. During the stressful years of a prior business of mine, my blood pressure was constantly at 140/90 or higher. My systolic blood pressure dropped 20 mm by getting out of stressful circumstance and

using meditation techniques with peaceful music. It took about two years of a much more peaceful lifestyle before my blood pressure normalized to 120/70 mm Hg.

Preventive Care

Let me now outline 10 ways you can help normalize high blood pressure even before turning to supplements or prescription medications:

1. Maintain optimal body weight. Remember that refined sugars, wheat products, hormone-mimickers in foods, environmental chemicals, laziness, hormone imbalance/deficiency and stress contribute to becoming overweight.
2. Reduce salt intake to less than 2,400 mg (1 teaspoon) total in a day. Use a sea salt high in electrolyte minerals if you can find one in a health food store. You can also offset the hypertensive effect of your sodium intake by eating foods high in potassium (potatoes, sweet potatoes, tomatoes, spinach, apricots, bananas, beans and plain yogurt) and fresh juices (prune, carrot, tomato and orange).
3. Do not consume excessive alcohol (no more than one drink per day for women and two drinks per day for men).
4. Get sufficient good quality sleep and practice one or more of the stress-reduction techniques discussed earlier on a regular and frequent basis.
5. Maintain optimal intestinal health and bacterial flora. Consider taking probiotics and/or digestive enzymes for a few months if your diet is not optimal or you detect intestinal symptoms that could be contributing to the autoimmune inflammation of your illness.
6. Limit prescription medications; they may have xenobiotic effects and lead to a leaky gut. Eliminate chemical food dyes and preservatives. Avoid foods you suspect could antigenic (cow’s milk, refined sugar, etc.).
7. Eat nutrient-rich foods with at least 50 percent or more of your diet as raw food (fruits, vegetables, seeds, nuts and sprouted grains). High-fiber food consumption is directly associated with lower blood pressure.^{xi} Eat mostly sprouted grains, fish, legumes (beans), tofu (fermented soy) and pastured

hormone/antibiotic-free animal meats for protein. Consume healthy oils, such as olive oil and fish/fish oils.

8. Seldom eat (or eliminate): trans-fats and hydrogenated oils found in cookies, crackers, cakes, donuts, processed foods, French fries, onion rings and margarine. Avoid white sugar, high fructose corn syrup, white bread, white rice, pasta and all other refined simple carbohydrates.
9. Try acupuncture^{xii, xiii} and other traditional Chinese medicine interventions^{xiv} such as moxibustion (learn about this here). Also available are qigong and tai chi, which have been shown in studies to be safe. These are not usually discussed by conventional healthcare practitioners because they are not part of our doctors' medical training. There are also few practitioners of TCM in the U.S. But in the hands of an experienced practitioner, you can expect it to be safe and effective.
10. Alternative (non-dietary, non-drug) interventions that are safe and modestly effective (mixed results in some studies) as recommended by the American Heart Association's June, 2013 scientific statement^{xv} include: behavioral therapies (Transcendental Meditation®, biofeedback and other relaxation therapies); procedures/devices (device-guided breathing, acupuncture); and exercise regimens (aerobics, dynamic resistance and isometric handgrip).

Learning Process

I have learned from the American Academy of Anti-Aging Medicine fellowship training that the proper nutrition along with nutrient supplements and stress-reduction can help those with high blood pressure travel 80 percent of the way to completely normalizing blood pressure.

Here are the key supplements:

- **Fish oil (fish or omega-3 polyunsaturated fatty acids):** At a daily 3-4 gram dose of oil that contains DHA (docosahexaenoic acid) with EPA (eicosapentaenoic acid) on average, you can reduce blood pressure 8/5 mmHg, lower heart rate 6 beats/minute and lower endothelial inflammation.^{xvi, xvii, xviii, xix, xx, xxi}
- **CoEnzymeQ10:** Has been shown to lower blood pressure by 17/10 mm Hg at modest doses of 60

mg twice daily in a meta-analysis^{xxii} of 12 studies (n=362). And in another study^{xxiii} this dose reduced blood pressure by 26 mm Hg systolic on average of the 55 percent in those who responded to treatment.

- **Green coffee extract:** Contains chlorogenic acids, shown in a number of studies to significantly lower blood pressure.^{xxiv, xxv, xxvi, xxvii, xxviii} An average dose of 140 mg daily lowered blood pressure 5.6 mm Hg systolic and 3.9 mm Hg diastolic.
- **Polyphenols:** Resveratrol,^{xxix} quercetin, flavonoids, red wine (6 ounces twice weekly), dealcoholized red wine,^{xxx} purple grape juice^{xxxi} (independent of alcohol content), red grape polyphenolic extract,^{xxxii} dark chocolate^{xxxiii, xxxiv} and other plant-derived polyphenols^{xxxv} have been shown to safely reduce endothelial inflammation,^{xxxvi} increase nitric oxide (a vasodilator) and, thereby, lower both blood pressure and cardiovascular disease. For example, concentrated pomegranate juice (contains polyphenols) 50 ml daily lowered systolic blood pressure 5 percent in a two-week study^{xxxvii} largely due to its ACE-inhibition (like the prescription ACE-inhibitors such as Lisinopril®) and by 12 percent in a year-long study^{xxxviii} in which it also significantly reduced atherosclerosis (intima-media thickness reduction by up to 30 percent).
- **Soy isoflavones:**^{xxxix, xl} Contain diadzein and genistein, which are known to lower blood pressure.
- **Lycopene extract:** Lowered blood pressure by 9/7 mm Hg in a small study^{xli} (n=30) for eight weeks. When added to ACE-inhibitor, calcium channel blocker or a diuretic medication, it lowered blood pressure by 10/5 mm Hg.^{xlii}
- **L-arginine:** At 6 grams daily, significantly increases nitric oxide secretion, which is a powerful vasodilator with endothelial anti-inflammatory effects,^{xliii, xliv, xlv} especially in salt-sensitive person.^{xlvi} A meta-analysis of 11 randomized, double-blind, placebo-controlled trials (n=387) using 4 to 24 grams daily lowered pressure 5.39 mm Hg systolic and 2.66 mm Hg diastolic on average.^{xlvii}
- **L-carnitine:** At 1 gram twice daily lowers blood pressure and lowers insulin resistance.^{xlviii, xlix} It has maximal effect at 3 grams twice daily for the hypertensive diabetic person.

- **Taurine:** Has pronounced beneficial heart health effects, including its blood pressure-lowering effect^{l, li} (best at 3 grams twice daily).
- **R (alpha) lipoic acid:** Lowers blood pressure and improves endothelial dysfunction through beneficial effects on nitric oxide (a vasodilator) and other mechanisms at the optimal dose of 100-200 mg daily.^{lii}
- **Hawthorne berry:** Has ACE-inhibition effects (like the prescription ACE inhibitors such as Lisinopril®) and mildly reduces systemic vascular resistance.^{liii, liv, lv}
- **Green tea extract:** Contains epigallocatechin gallate (EGCG), which has been shown to be anti-hypertensive.^{lvi}
- **Other teas:** Dandelion leaf tea is a mild diuretic and, therefore, can lower blood pressure. Fresh ginger tea lowers blood pressure.^{lvii} Hibiscus tea helps lower blood pressure, according to a few studies.^{lviii, lix}
- **Ginkgo biloba:** Has ACE inhibition effects, improves endothelial dysfunction^{lx} and has been found to lower blood pressure and slow heart rate, although not all studies agree.
- **Garlic and onion extracts:** Have been found to lower blood pressure and slow heart rate,^{lxi} although not all studies agree.
- **B vitamins:** Take vitamin B complex and at least 200 mg of vitamin B1 (thiamin) daily.^{lxii} That's because niacin (vitamin B3 or nicotinic acid) 500 to 1,000 mg is a vasodilator and, taken as an extended release form, will lower blood pressure and raise good cholesterol levels.^{lxiii, lxiv} Also, pyridoxine (vitamin B-6) stabilizes nitric oxide^{lxv} (a potent vasodilator), as do the other micronutrients vitamin C, vitamin D3 and vitamin E (gamma & delta tocopherols and tocotrienols). Pyridoxine also has calcium channel-blocking effects^{lxvi} (like the prescription calcium channel blockers such as Amlodipine® and Nifedipine®).
- **Vitamin D3:** Make sure your blood levels are at 60 ng/mL or higher, which usually requires supplementation with 2,000 to 5,000 IU daily if your levels are low.
- **Magnesium:** Low serum magnesium is linked to

hypertension.^{lxvii} Magnesium intake (diet/supplementation) is associated with lower incidence of hypertension.^{lxviii}

- **Potassium:** A high potassium diet of 5,000 mg daily^{lxix} is recommended (unless you have kidney failure) for optimal heart health and blood pressure. Learn how to get this amount in your diet by reading more here.

Safely Eliminate Your Blood Pressure Medication

Now that you understand the basic physiology, long-term effects and contributing causes of high blood pressure, you also know the natural options that are supported by the scientific literature to lower blood pressure. What if someone (let's call him George) is already on prescription medications and wants to safely eliminate them? It's quite simple to do, really.

It is most important that George has a way to reliably check his own blood pressure at least weekly during this process. Also, he must be able to recognize any signs or symptoms of worsening blood pressure such as: fluid retention (weigh yourself daily and remember that 8 pounds = 1 gallon of liquid); headache, blurred vision or dizziness; fatigue or shortness of breath; heart rate increase (> 90 beats/min); or an irregular heart rhythm.

Cutting back on only one medication at a time, George would cut the daily dose in half for a week, and then in half again for another one to two weeks. He may need to remove some powder from the capsule or split the tablet in order to do this.

Finally, George would use that reduced dose every other day and make sure his pressure remains in the desired range before completely eliminating the medication. He must remember to continue to keep track of his blood pressure for several weeks afterward to monitor his new drug-free regimen. George could always go back on his prescription medication at the dose needed to maintain pressure in the desired range while he works on other underlying causes of essential hypertension.

I believe you now know enough to be able to complete your own (or your loved one's) natural treatment plan for hypertension.

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Dr. Cutler is uniquely qualified as a noted authority on preventative solutions to aging issues, general family ailments and nutrition, with an understanding and respect for the natural harmony of the human body. He has devoted his career to learning how to optimize health through simple changes in diet and lifestyle. His goal is to educate others so they can heal and teach others such principles of sustainable health, thereby shifting the paradigm of healthcare to one of personal empowerment and inspiration from God.

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EZ-PR199-15