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# 15 Ways to Fight Hypertension Naturally

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Abstract: In our daily life we come across many problems but taking tension increasing blood pressure does not give the solutions to our problems in this article we are going to discuss 15 ways to fight hypertension without any medication. Why naturally? Because natural medication of herbs and spices can reduce effectively than taking pills. Natural process does not affect and no side effects are produced while with homeopathic medicines you can have chances of affecting the body with side effects. Thus this article tells to improve the health and body fitness without any medication.

**Keywords:** hypertension, blood pressure, diabetes, health, alcohol.

#### 1. Introduction

Hypertension is a cardiovascular pathological condition characterized by relatively sustained elevated arterial blood pressure above normal tolerable limit. It refers to the condition wherein arterial blood pressure level is greater than the limit of the normal range of 90 millimeters mercury. In fact hypertension occurs when the diastolic blood pressure (period of relaxation of the heart) is sustainably greater than 90 millimeter mercury and systolic blood pressure (period of contraction of the heart) is greater than 135mmHg [1].

15 ways to fight Hypertension:

- Garlic
- Onions
- Cardamoms
- Limit the amount of alcohol you drink
- Go for a power walk
- Breath deeply
- Be salt smart
- Indulge in dark chocolate

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- Switch to decaf coffee
- Supplements can lower blood pressure
- Relax with music
- Hawthorn herb
- Milk
- · Celery seed
- Water melon

Garlic: Garlic supplements have shown promise in the treatment of uncontrolled hypertension, lowering blood pressure (BP) by about 10mmHg systolic and 8mmHg diastolic. Garlic (Allium sativum) has been used as a spice, food, and medicine and is one of the earliest documented herbs utilized for the maintenance of health and treatment of diseases [2].several mechanism of action for the BP-lowering properties of organ sulfur compounds in garlic have been postulated, including medication of intracellular nitric oxide(NO) and hydrogen sulfide (H2S) production as well as blockage of angiotensin-II production, which in turn promotes vasodilation and thus reduces the BP [3, 4]. The strongest evidence of and insights into the mechanisms of the BP-lowering effect of garlic supplementation involve endothelium-dependent vasodilation, the relaxation of vascular smooth muscle cells is an element of the physiological mechanism for lowering BP [5]. The major two components

are NO and H2S. NO is synthesized from L-arginine by at least three isoforms of NO synthase in the endothelium by endothelial NOS (eNOS) in the nerve cells mainly by neuronal NOS thus this eNOS derived NO induces relaxation of smooth muscle cells and thus increased dilation of all blood vessels [6] and second vascular gaseous signal transmitter is hydrogen sulfide. The H2S- dependent BP reducing effect is thought to be primarily mediated through sulfhydration of ATP- sensitive potassium channels thus these helps in relaxation of vascular smooth muscle cells which promotes vasodilation and BP reduction.

**Onion:** For one, it's a great source of quercitin, found mostly in the outer layers and skin of shallots, yellow and red onions, but not in white. This powerful antioxidant flavonal is linked to a reduced risk of heart diseases and stroke and has been shown to reduce high blood pressure. When people with hypertension took 730mg of quercitin a day for 28 days, their blood pressure dropped between 2 and 7 points systolic and 2 to 5 point diastolic compared with no change with a placebo. Quercitin is a plant pigment (flavonoids). It is found in many plants and foods, such as red wine, onions, green tea, apples, berries, ginkgo biloba. People use quercitin as a medicine. Quercitin has antioxidant property and anti-inflammatory effect which might help to reduce prostate inflammation thus onion is the major source through which we can obtain this pigment which is helpful in reducing the blood pressure

**Cardamoms**: Cardamom appears to behave in the body in the similar way to a type of blood pressure medication called calcium channel blockers. Calcium channel blockers are drugs that block the entry of calcium into muscle cells of the heart and arteries. The entry of calcium is critical for the conduction of the electrical signal that passes from muscle cell to muscle cell of the heart, signals the cells to contract. CCB's effectiveness in the treatment of hypertension is related to a decrease in the peripheral resistance accompanied by the increase in cardiac index [7]. Elevated free calcium concentrations have been found in platelets from hypertensive patients, and platelet free calcium concentration, possibly an index of vascular smooth muscle cell free calcium concentration, correlated with blood pressure in normotensive and hypertensive subjects. Increased systemic vascular resistance in essential hypertension depends on increased calcium influx. Thus cardamom helps in reducing hypertension.

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Limit the Amount of Alcohol You Drink: According to a review of 15 studies, the less you drink, the lower your blood pressure will drop. A study of women at Boston's Brigham and women's hospital, for example, found that light drinking may actually reduce blood pressure more than no drinks per day. Most medical data on the effect of alcohol come from large observational studies and thus inherently less definitive than interventional studies. However, a Meta analysis of 15 randomized controlled trials in which alcohol reduction was the only intervention between active and control groups found that alcoholic beverages reduction lowered systolic and diastolic blood pressure, with a dose response relationship [8]. Additionally an older, randomized controlled crossover trial found that after an alcohol reduction induced drop in the blood pressure the resumption of baseline alcohol intake increased blood pressure back to normal level or pre study level [9].

Go For Power Walk: Researchers observed that a walk can reduce hypertension than going for a jog. Walking is the best way to reduce high blood pressure this happens because when we go for a walk the arterial blood vessels become dilated or widening and hence least pressure is produced, thus hypertensive patients who went for fitness walks at a brisk pace lowered pressure by almost 8 mmHg over 6mmHg. Exercise helps the heart use oxygen more effectively, so it does not work as hard to pump blood. Get a vigorous cardio workout at least for 30 minutes on most days of the week. Try increasing the speed or distance which will definitely reduce high blood pressure. You can also measure the blood pressure before and after going for a walk.

Breathe Deeply: Taking deep breaths lowers blood pressure while increasing heart rate variability. Heart rate variability is the difference between the rise in heart rate with breathing in and the drop with breathing out. The larger the difference, the more variability, which is good. A person with high variability may be less likely to die from the condition involving irregular heartbeats and from coronary artery disease, where fatty deposits narrow the blood vessels. Thus deep breathing from abdomen affects the nervous system, causing the body to relax. Slow breathing and meditative practices such as qigong, yoga and tai chi decrease stress hormones, which elevates rennin, a kidney enzyme that raise blood pressure. Try 5 minutes in the morning and at night. Inhale deeply and expand your belly. Exhale and release all of your tension.

Be Salt Smart: If you eat much salt the extra water stored in the body raises the blood pressure, so the more salt you eat higher will be the blood pressure. The higher your blood pressure greater strain on heart, kidney, arteries and brain. Follow a DASH-style diet clinical trials show that the DASH (dietary approaches to stop hypertension) eating plans have a beneficial effect on blood pressure. In one study, individuals with hypertension followed a DASH diet for eight weeks lowered their systolic blood pressure by 11 mmHg, compared with the typical American diet [10]. In another trail, the combination of a low sodium intake (1500 mg a day) and the DASH diet was more effective than either approach alone [11]

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**Another DASH**: Style diet that replaced some of the carbohydrates with protein (mostly from plants) and with fat (mostly monounsaturated fat from olive oil) lowered the blood pressure even further.

Indulge In Dark Chocolate: Consumption of dark chocolate can also reduce the blood pressure in the body. Scientist researched that dark chocolate contain flavanols chemical that are found in cocoa stimulate nitric oxide, which causes dilation (widening) of blood vessels, and so may be linked to lowering the blood pressure. In general the darker the chocolate is the more flavanols it contain. The basic results mainly included was a pooled results but statistically significant, greater reduction in blood pressure with flavanol-rich cocoa products compared with control:

- A 2.77mmHg greater reduction in systolic BP in the intervention group compared with control
- A 2.20mmHg greater reduction in diastolic BP in the intervention group compared with control

Switch To Decaf Coffee: drinking more amount of coffee can increase hypertension in the body. Caffeine can cause a short, but dramatic increase in your blood pressure, even if you don't have blood pressure. It's unclear what causes this spike in blood pressure. Some researchers believe that caffeine could block hormone that helps keep your arteries widened. Others think that caffeine causes your adrenal glands to release more adrenaline, which causes your blood pressure to increase. To see if caffeine might be raising your blood pressure, check your blood pressure within 30 to 120 minutes of drinking a cup of coffee or other caffeinated beverages. If your blood pressure increases by five to 10 points, you may be sensitive to the blood pressure raising effects of caffeine. Caffeine is the most widely used pharmacologically active substance in the world. Researchers have reported that caffeine acutely elevates systolic and diastolic blood pressure at rest and during mental and exercise stress [12, 13, 14]. The ability of the caffeine to increase vascular resistance raises the question of its effect in hypertension development.

#### **Supplements**

- Coenzyme Q10: co-Q10 [15] is found in every cell in the human body and is used to make energy. In eight small studies of co-Q10, on the average people reduced their systolic BP by 16mmHg and diastolic BP by 10mmHg
- Fish oil: it can help reduce the risk of heart disease. It does this more through decreasing inflammation and blood clots than its effect on blood pressure
- Vitamin D: if you live north 40 degrees latitude or spend time in the sun, you might be increased risk for vitamin D deficiency along with high blood pressure. People with high blood pressure when treated with calcium and vitamin D [16], there was an average drop in systolic BP of 13.1 mmHg compared to 5.7mmHg drop with calcium alone.
- Basic minerals like magnesium, potassium, and calcium also helps in the reduction of hypertension

**Relax With Music:** Listening to the soft music can actually lower the hypertension in the present study sought to explore the effects of classical music, largetto on the arterial blood vessels. Need to bring down your blood pressure a bit more

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than medication or lifestyle changes can do alone? The right tunes can help, according to researchers at the University of Florence in Italy. They asked 28 adults who are already taking hypertension pills to listen to soothing classical, Celtic or Indian music for 30 minutes daily while breathing slowly. After a week, the listeners had lowered their average systolic reading by 3.2 points.

Hawthron: A thorny shrub or tree of rose family has been used to treat congestive heart failure. It also can lower blood pressure modestly. One of the active ingredients, proanthocyanidins, seems to do this. In a study of patients with diabetes, it was found to lower blood pressure an average of 5mmHg. Many studies have shown that proanthocyanidins help to prevent the oxidation of LDL cholesterol, reduce blood pressure and improve fat metabolism. Tests with rabbits showed that extract of grape seed proanthocyanidins significantly reduced the development of aortic atherosclerosis.

Milk: Studies have shown that people who drink milk seem to have lower blood pressure [17]. This may be related to the calcium and proteins or peptides found in milk. It appears that when milk is fermented by the bacteria, lactobacillus, and proteins formed that block the action of an enzyme (ACE) that can cause high blood pressure. To obtain the blood pressure lowering effects, one would have to drink sour milk, which is not very pleasant.

Celery Seed: Celery is the member of umbelliferous family have unique compound called 3NB (3-n-butylphthalide). The 3NB is the active compound that is helpful in lowering the blood pressure [18]. The benefit of using celery seed extracts to lower the blood pressure is its apparent safety and unusual mechanism of acting as a diuretic. Retention of excess fluids and poor flexibility of blood vessels can cause higher blood pressure. In treating high blood pressure, doctors use diuretics (water pills) to reduce fluid volume, and vasodilators to relax the arteries.3nb appears to lower the blood pressure by acting both diuretics and vasodilators it acts similar to the calcium channel blockers.

Water Melon: Eating water melon can actually lowered the blood pressure in the body this is because water melon contains vitamin A, vitamin C and vitaminB6 along with potassium and fiber [19]. This also contains Lycopene which is an antioxidant it is beneficial for the treatment of cancers usually blood and prostate cancer. The mechanism of water melon to lower the blood pressure is by the production of nitric oxide. This is because L-citrulline present in the water melon gets converted to L-arginine which is the precursor for the production of nitric oxide thus resulting in the lowering of blood pressure.

#### 2. Conclusion

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The major conclusion we can give is that fight against hypertension naturally because this is the best and safe method to reduce blood pressure and change the life style by maintaining DASH- diet style and every human being can be saved by any side effects.

#### References

- [1] Clinical management of hypertension NICE clinical guideline 127 guidance.nice.org.uk/cg 127
- [2] Rivlin RS.historical perspective on the use of garlic. J Nutr. 2001;131 (suppl 3);951S-954S
- [3] Waring RH, Klovrza LZ, Harris RM. Diet and individuality in detoxification. J Nutr environ Med.2007; 16(2):95-105.
- [4] Jones DP, park Y, gletsu-miller N et al. dietary sulfur amino acids effects on fasting plasma cysteine redox potential in humans nutrition,2011;27(2):199-205.
- [5] Kirby BS, crecelius AR, Voyles WF, Dinenno FA.vasodilatory responsiveness to adenosine triphosphate in ageing humans. J physiol.2010; 588 (20):4017-4027.
- [6] Forstermann U, sessa WC. Nitric oxide synthase: regulation and function. Eur heart J.2013; 33 (7): 829-837.
- [7] Sinaiko AR (1994) treatment of hypertension in children pediatric Nephrol8:603-609.
- [8] Xin X, He J, Frontini MG, and Ogden LG, motsamai OI, whelton PK. Effect of alcohol reduction on blood pressure: a Meta analysis of randomized controlled trials. Hypertension.2001; 38(5): 112-117.
- [9] Puddey IB, beilin LJ, vandongen R rouse IL, Rogers P. evidence for a direct effect of alcohol consumption on the BP in normotensive men. A randomized controlled trail. Hypertension. 1985; 7(5):707-713.
- [10] 10. http://www.healthcommunities.com/high-blood-pressure/follow-dash-sty;e-diet\_jhmwp.shtml
- [11] http://www.healthcommunities.com/high-blood-pressure/follow-dash-style-diet\_jhmwp.shtml#sthash.YWlqsc1W.dpuf
- [12] Pin comb GA, lovallo WR, passey RB, Wilson MF. Effect of behavior state on caffeine's ability to alter blood pressure. Am J cardiol. 1988; 61:798-802.
- [13] Pin comb GA, wilsonMF, sung BH, passey RB, lovallo WR. Effects of caffeine on pressor regulation during rest and exercise in men at risk for hypertension. Am heart J.1991;122:1107-1115.
- [14] Sung BH, Lovallo WR, pincomb GA, passey RB, Wilson MF. Effects of caffeine on blood pressure re-sponse during exercise in normotensive young men. Am J Cardiol. 1990;65:909-913
- [15] University of wiconsin integrative medicine/ non-drug ways to promote health by lowering blood pressure/www.fammed.wisc.edu/integrative.
- [16] University of wiconsin intergrative medicine.
- [17] University of Wisconsin intergrative medicine/non drug ways to promote health by lowering blood pressure.pdf
- [18] Celery seed extract/the research information.pdf
- [19] Water melon can lower the blood pressure.pdf/http://www.naturalnews.com/030822\_water\_m elon\_blood\_pressure.