

# Some Possible Ways to Make Our Blood Pressure Lower

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## Introduction

When our heart beats, it pumps blood round our body to give it the energy and oxygen it needs. As the blood moves, it pushes against the sides of the blood vessels. The strength of this pushing is our blood pressure. If our blood pressure is too high, it puts extra strain on our arteries and our heart and this may lead to heart attacks and strokes. Blood pressure is two types namely, high blood pressure and low blood pressure.

## High blood pressure

We probably have high blood pressure (often called hypertension) if our blood pressure readings are consistently 140 over 90, or higher, over a number of weeks. We may also have high blood pressure if just one of the numbers is higher than it should be over a number of weeks. If we have high blood pressure, this higher pressure puts extra strain on our heart and blood vessels. Over time, this extra strain increases our risk of a heart attack or stroke. High blood pressure can also cause heart and kidney disease, and is closely linked to some forms of dementia. Thus we always need to be careful about our blood pressure condition.

## Causes of high blood pressure

For most people, there may be no single cause for their high blood pressure. We do not know exactly what causes high blood pressure. But we do know that our lifestyle can affect our risk of developing blood pressure. We are at a higher risk if:

- we eat too much salt and salty foods;
- we don't eat enough fruits and vegetables;
- we are not active enough;

- we are overweight; or
- we drink too much alcohol.

We can help to lower our blood pressure - and our risk of stroke and heart attack - by making our lifestyle changes. There are some factors that increase our risk of developing high blood pressure, which we cannot control. These include:

- Age: as we get older, the effects of an unhealthy lifestyle can build up and our blood pressure can increase.
- Ethnic origin: people from African-Caribbean and South Asian communities are at greater risk than other people of high blood pressure.
- Family history: we are at greater risk if other members of our family have, or had, high blood pressure.

Some people may have high blood pressure that is linked to another medical condition, such as kidney problems. These people may lower their blood pressure back to normal by treating the medical problem.

## **Low blood pressure**

We probably have low blood pressure (hypotension) if our blood pressure readings are consistently 90 over 60, or lower, over a number of weeks. Many people worry about low blood pressure (hypotension), but probably it does not need to. Some people have a blood pressure level that is lower than normal. In general this may be good news - because the lower our blood pressure is, the lower our risk of stroke or heart disease. However, in a few cases, having low blood pressure can cause problems, so in that case we might need to speak to our doctor or nurse.

## **Causes of low blood pressure**

Some people have a blood pressure level that is naturally low. That is, there is no specific cause or reason for this. However, some health conditions or medicines can cause to develop low blood pressure. Usually, having low blood pressure is not a cause for concern. Sometimes our blood pressure can drop to a point where we may feel faint or dizzy. If we find that our blood pressure is suddenly much lower than usual, there may be a reason for this. In such a case we need to speak to our doctor or nurse immediately.

In this paper we would like to highlight some possible ways about how to make our blood pressure lower. These are discussed below. Note that all these ways are mainly sourced from *Blue Heron Health News* – published from the USA in different times.

## **Way 1: Borscht can drastically lower blood pressure**

According to a new scientific study, borscht can drastically lower blood pressure. What is Borscht? Where can we get it? No worries, it is delicious, healthy and now available in many restaurants worldwide. Plus, it is easy to make at home using ingredients already in our kitchen. And good news is it can lower our blood pressure.

Borscht, also called beet soup, is famous in many parts of Europe. Traditionally it is made with beetroots and sour cream, it also has countless variations. Borscht spells good news for those with high blood pressure. It also made up with spices, garlic, mushrooms, beans, tomatoes, potatoes, meat, fish, cabbage, and beets, the prime ingredient of the soup and our source of interest.

A research study involved 32 participants with high blood pressure. One group was given beet soup every day for a period of 4 weeks while the other group was not. Within the first week, the people who consumed

the soup showed a reduction in both systolic and diastolic pressure. On the other hand, those who did not eat this soup showed no change in their blood pressure readings.

Another study published in the journal *Hypertension*, shows that drinking 8 ounces of beetroot juice can help in reducing blood pressure by up to 10 mm/hg. The best part is how the benefits of beetroot kick in within just minutes of drinking it and last for a whole day. The most important player in borscht is, therefore, obviously the beetroot, the main ingredient in the soup. Beetroot is rich in nitrates that get converted into nitric oxide in the body. This nitric oxide has an important property – it causes dilation of blood vessels, thus improving blood flow and lowering blood pressure.

Beetroot also contributes a compound called betaine that protects the liver and reduces the levels of homocysteine, a harmful substance that contributes to heart disease and stroke. Better still, beetroots are packed full of antioxidants that reduce levels of LDL cholesterol and protects arterial walls. Those who are prone to kidney stones, beware though! Beetroots contain oxalates that can trigger kidney stone formation. If it is not possible to consume the juice every day, indulge in other beet-based delicious diets.

## **Way 2: Coconut oil has very powerful effect on lowering blood pressure**

Here we will look at a study investigating the effects of coconut oil whose popularity is rising at breakneck pace, and for great reason. Coconut oil has very powerful effects on lowering blood pressure. Some lifestyle changes are really difficult and can take a lot of effort to stick to them. But others are very simple- even as easy as switching out the oil we normally buy.

A group of scientists in Brazil recently offered up convincing proof that coconut oil has very powerful effects on lowering blood pressure. The biotechnologists at the Federal University of Paraiba wanted to see if there was any merit to the praises recently being poured onto the effects of coconut oil.

What they found was clear and convincing. In the study, a number of rats were separated into 4 groups: those which were fed coconut oil into their diets but were sedentary, those which were given no oil but exercised, those which were fed coconut oil and exercised, and those which diets and exercise didn't change at all.

What the scientists found wasn't altogether surprising. They saw a drop in hypertension (high blood pressure) in rats who exercised, which they knew would happen. They also saw a drop in blood pressure for the sedentary coconut-oil-fed rats. But the biggest drop- in fact the cure- happened, was when rats were both made to exercise and were fed coconut oil at the same time.

The effects of coconut oil are twofold, and scientists believe it is because of the medium chain fatty acids in the oil. These act as extremely powerful antioxidants, eliminating the oxidative stress of free radicals attacking heart and blood vessel tissue. As well, scientists found that the rats are more resistant to stress of all kinds in the coconut oil group, leading the researchers to conclude an insulating kind of effect in the baroreceptors in the heart tissue.

Coconut oil, because of its rising popularity, is becoming more easily available on store shelves all over the world. People use it in their salad oils, recipes, and even in smoothies. We can also replace butter in most cases with coconut oil for our better health condition. So, it is highly recommended to use coconut oil as much as we can.

## **Way 3: Chia seeds can lower blood pressure**

If one single type of seed could lower blood pressure, improve type 2 diabetes, decrease inflammation for arthritis, clear-out arteries, help to lose weight and deliver thousands of other health benefits, what

should we call it? We should call it “The most powerful health seed on planet earth!” Question is what is this powerful seed?

Just a one ounce serving of chia seeds contain about 11 grams of fiber and 4 grams of protein. It also supplies calcium, phosphorus, magnesium and manganese, minerals that are good for lowering blood pressure and improving heart health. Things just get better – chia seeds are usually grown organically making it free of harmful chemicals, it is a good source of whole grains and are naturally free of gluten.

Chia seeds are also rich in antioxidants. Did we know that antioxidants obtained through supplements are not effective enough? It is only antioxidant obtained through food sources that really help. Chia seeds, in this case, are a very good choice!

Chia seeds are also rich in Omega-3 fatty acid ALA (alpha linoleic acid), which obtained from fish, is still good for heart health. It is a rich source of minerals like magnesium, phosphorus and calcium that are good for lowering blood pressure as well as for bone health.

In a study involving 20 patients with diabetes, one group was given 40 grams of chia seeds or wheat bran for a period of 12 weeks. Those who ate chia seeds showed a 3-6 mm/hg drop in blood pressure readings as well as an improvement in blood sugar levels.

Owing to its ability to slow down digestion and prevent blood sugar spiking, chia seeds have been considered as a good natural alternative for controlling type 2 diabetes. It has also been shown to prevent insulin resistance.

Chia seeds are also a good source of Omega-3 fatty acids, making it a great option for improving our heart health. It reduces levels of LDL cholesterol and triglycerides, making it an awesome choice.

Improve our sleep, mood and overall health with chia seeds – it is rich in the amino acid tryptophan that regulates appetite and sleep.

Since chia seeds provide 18 percent of the recommended intake of calcium in one serving, it is good for bone health and preventing osteoporosis, especially in women.

Chia seeds are versatile when it comes to using in meals. Since they have a bland taste, these seeds can be used in just about anything. They can be eaten raw or after soaking in water.

#### **Way 4: Eight foods are very effective to lower blood pressure**

There are eight foods given below that can lower the blood pressure and hence we should include these in our regular dieting habits. Best of all, we might have most of them already in our refrigerator.

1. Milk: It has two ingredients that help reduce blood pressure by 3 – 10 points: calcium and vitamin D.
2. Spinach: We might have already heard before about spinach many times that it is so good for us. Packed with fiber as well as heart-healthy nutrients like folate, potassium and magnesium, spinach is great for lowering blood pressure and is a must-add in salads and sandwiches.
3. Sunflower seeds: These are very simple and healthy snacks. Grab a small cup of unsalted sunflower seeds. They are loaded with potassium, good for lowering blood pressure and having a healthy heart. However, avoid sunflower oil as it is high in Omega-6 vs Omega-3 fatty acid.

4. Beans: Black beans, pinto beans, kidney beans, all are our favorite, but make it a regular part of our diet. These are all very rich in fiber, potassium, and magnesium. Beans are really great for our overall heart health.
5. Baked white potatoes: White potatoes are rich in magnesium and potassium. Potassium is useful for getting rid of excess sodium in the body as we know that excess sodium can raise blood pressure.
6. Banana: This yellow fruit is a very good source of potassium, a mineral that is heart-healthy. There is seemingly no end to recipes using bananas. So, make sure we eat it on a regular basis in whatever way we want.
7. Soybeans: Soybeans, as well as those fresh in pods (edamame) are good for heart health. One cup of boiled edamame can provide magnesium and potassium needed for lowering blood pressure. Make sure we choose organic soybeans as most soybeans sold in the USA at least are genetically modified.
8. Dark chocolate: While the recommended serving is just one square of dark chocolate per day, it can help in lowering blood pressure after 18 weeks with no weight gain. The dark chocolate should ideally contain at least 70% cocoa powder.

## **Way 5: Grapes can lower blood pressure**

Every one in three adults in the United States are struggling with high blood pressure, and most are suffering with this chronic condition throughout their lifetimes. The good news is that researchers have found a solution to this endemic problem that does not lie in handfuls of pills, but rather on the end of a vine.

Researchers have long been aware of the benefits of grapes. Respected experts such as Dr. Mark Hyman have called it the “mother of all antioxidants.” But now it seems that it is even better than what it was initially thought.

A recent study shows that grapes work to promote increases in glutathione levels within the heart – an antioxidant that fights against heart disease that is specifically linked to high blood pressure.

Scientists from the University of Michigan undertook a study whereby they supplemented a large amount of grape powder to a dangerously high fat diet in rats to determine what would happen.

The results are outstanding. The grape powder actually prevented the hearts of the rats from becoming enlarged and the arteries from hardening, as usually happens with humans and animals on a high fat diet.

An enlargement or stiffening of the heart vessels is quite a common side effect of high blood pressure. Due to these findings, researchers can now say with some confidence that grapes do not only lower blood pressure, but also contribute to the prevention of heart failure.

Once the scientists were aware of the positive benefits of the seemingly insignificant grape, they then went on to conduct a further study. Now they fed the grape-rich diet to rats suffering from hypertension. This new diet lasted for 18 weeks and now the results are even more significant than before. The grapes actually altered the very genes of the animal.

Basically, by altering the genes the grapes boosted the antioxidant abilities of the cells in the heart, thus preventing it from stiffening and suffering under the ravages of high blood pressure.

Lead researcher, Dr. Mitchell Seymour, made a statement that this study is particularly interesting because although they were aware of the positive effects of grapes on high blood pressure, and indeed on heart health, they didn't know how they worked until now.

He further recommended that individuals suffering from high blood pressure should add at least a handful of these tasty fruits to their diet, as this might prevent heart disease that is related to high blood pressure from spiraling out of control.

## **Way 6:Less consumption of sugar can lower blood pressure**

A new study published in *American Journal of Cardiology* reveals that sugar is another common ingredient that causes high blood pressure. People who consume sugar more have up to 76% higher blood pressure and are twice as likely to develop chronic hypertension as those who consume less.

We all know that sugar is related to risk of developing obesity, which in turn is a risk factor for hypertension. However, recently researchers have found that sugar can directly cause high blood pressure even if obesity is absent.

The study team gathered data on nearly 400,000 people from 12 previously published studies and analyzed them for common health trends. What they discovered was that people who consume 3 or more sugary beverages (sodas, sugary fruit juices etc.) had 26 to 76 percent higher blood pressure than those who drank little or no sweetened drinks. And they are almost twice as likely to develop chronic hypertension as non-sugar-drinkers.

The largest impact on high blood pressure was contributed by sugared drinks that have no other nutritional value. So how exactly does sugar cause high blood pressure? We see sugar decreases the level of nitric oxide in the system, which is essential for dilation of our blood vessels.

It also causes magnesium deficiency – essential mineral to manage blood pressure. When metabolizing sugar, magnesium is used up and ultimately the mineral gets depleted in the system. High blood pressure is just one of many things sugar and high fructose corn syrup causes. It contributes to almost all progressive diseases such as type 2 diabetes, arthritis and even cancer. So, we need to consume less amount of sugar.

## **Way 7:Coconut water lowers blood pressure**

Coconut water is rich in many vitamins, minerals, essential trace elements, amino acids, enzymes, antioxidants, phytonutrients, electrolytes and natural salts. Coconut water is also rich source of potassium. Potassium is a mineral that is wonderful for protecting the heart and muscle function. It relaxes the blood vessels and lowers blood pressure naturally.

In a study published in the *West Indian Medical Journal* in 2005, a group of researchers investigated the effect of coconut water and a tropical drink called mauby (a tea made from boiled buckthorn tree bark) in patients with high blood pressure.

Twenty-eight volunteers took part in the study, and they were divided into 4 groups. One group was given plain bottled water, another group was given coconut water, and the third group was given mauby, while the fourth group received a mixture of coconut water and mauby.

The blood pressure readings of the patients were measured before and throughout the two-week study period. An amazing decrease in blood pressure was observed in the three groups that received coconut

water, mauby and the mixture. The study revealed that coconut water lowered blood pressure for 71% of those who drank coconut water, 40% of those who consumed mauby lowered their blood pressure, and 43% of those drinking the mixture of two had reduced blood pressure.

Another study conducted in 2013 which involved 70 volunteers also showed similar results. Irrespective of the cause of high blood pressure, tender coconut water was found to be useful for decreasing blood pressure readings.

In this study, the control group showed a 4 mm/hg decrease in systolic pressure and about 1 mm/hg decrease in diastolic pressure. Whereas the group that consumed the coconut water showed 10 mm/hg decrease in systolic pressure and 7 mm/hg decrease in diastolic pressure.

### **Way 8:A common mineral that lowers blood pressure**

Magnesium - a very common mineral has long been known to prevent stroke, heart attack, osteoporosis, memory loss, and depression. But a new research adds two more benefits: It prevents type 2 diabetes and lowers blood pressure. The good news is, this mineral is available in all health food stores as well as being found in high doses in many types of common foods.

In a recent study, researchers analyzed the data from a long-running survey – “The National Health and Nutrition Examination Survey,” to examine the health and nutritional status of adults and children in United States. The analysis revealed that those patients who met the recommended daily magnesium intake were far less likely to suffer from type 2 diabetes, metabolic syndrome, high blood pressure, or obesity.

The recommended daily magnesium dose is 420 milligrams/day for men and 320 milligrams/day for women. We can take many times that dose without harm. Magnesium is found in nuts, milk products like yogurt, wheat germ, brown rice, beans, soybeans, tofu, fish, spinach, and whole grains.

The general problem is that physicians usually cannot accurately diagnose magnesium deficiency nor do they generally prescribe magnesium supplements for those who might actually need it. If we have any of these symptoms it can indicate a magnesium deficiency and needs to be addressed: migraine, angina, numbness of hands and feet, depression, insomnia, muscle cramps, twitching, heart palpitations, asthma, poor concentration, anxiety, and gastrointestinal problems.

But as long as we don't overdo it, there is no harm in supplementing with magnesium. So, it is better to be on the safe side.

### **Way 9:This common herb can reduce blood pressure**



Garlic - a common and well known herb has long been glorified as the king of natural blood pressure medicine. Repeated studies- even the ones sponsored by Western medicine – show the benefits of this particular herb to combat high blood pressure.

Recently a meta-analysis on this herb has been released and found that without a doubt, this herb can reduce high blood pressure. But there is a catch. We must use it in a specific way.

A meta-analysis is a study that is conducted on the research done in a number of previous studies that all look at the same thing. It looks for common trends, research anomalies, discrepancies, and anything else to scrutinize the conclusions of the various studies.

The *Journal of Clinical Hypertension* recently published the result of one such meta-analysis, looking at the effects of garlic on hypertension, or high blood pressure. The meta-analysis looked at randomly chosen studies that occurred between 1946 and 2013, selecting 18 for comparison.

Across the many decades and methods of garlic consumption, the analysis not only showed an average of at least 3.75 mm/Hg drop in systolic pressure for the participants, but also a 3.39 mm/hg drop for diastolic. This was for all participants. For those who had high blood pressure to begin with, the drop was more, at an average of 4.4 mm/hg systolic.

The common reason that most of the studies agreed upon for the reason garlic is so effective at dropping blood pressure is that it contains a powerful antioxidant called allicin, which fights free radical damage throughout the body.

While allicin is not present in fresh garlic, processing it into powder and garlic salt, crushing it, or cooking it, will start the reaction process to create it from a precursor enzyme called allinase.

So, grab a garlic clove to drop our blood pressure 3-4 points. But if our blood pressure is so high that we need to lower it more than 3-4 points, we will have to use a more effective natural method.

The most powerful method that I know to lower blood pressure naturally is the program of 3 easy blood pressure exercises, used by thousands of readers to effectively bring their blood pressure below 120/80.

## **Way 10: Blueberries are perfect to bring down blood pressure**

Blueberry is one of the most powerful health fruit on earth. Drastically lowering blood pressure is only one of its magic powers, as proven in two long-lasting studies.

It has been seen that blueberries are loaded with antioxidants like anthocyanin, which not only destroy harmful free radicals in the body, but also increase the production of nitric oxide. Nitric oxide dilates blood vessels and hence creates better blood flow in our body and makes lower blood pressure.

Now let us move on to the research part. Forty-eight postmenopausal women were chosen to take part in the study. These women had mild blood pressure and they were randomly placed in one of the two groups. One group of women was given 22 grams of freeze-dried blueberry powder on a daily basis for a period of 8 weeks. The other group was given a placebo.

At the end of the study, the women who took the blueberry powder had a 5.1% reduction in systolic pressure and 6.3% lower diastolic group compared to the placebo group. The women also showed a 6.5% reduction in arterial stiffness as well as a 68% increase in nitric oxide in their blood.

This is the result only for just 8 weeks. Imagine how beneficial it is going to be for our heart if we can consume blueberries on a regular basis over a long time. The Director of the Women's Cardiovascular Center in Philadelphia, Dr. Chileshe Nkonde-Price, has mentioned that medications aren't usually recommended for this age group. Maintaining a healthy weight, exercise and a good diet can easily do the trick.

In another massive study based on Nurses' Health Study I, Nurses' Health Study II, and Health Professionals Follow-up Study, both blueberries and strawberries were shown to lower blood pressure. Compared to those who consumed the least anthocyanin, those who consumed the most of this compound had an 8% less risk of developing high blood pressure. So just eating a cup of blueberries, blackberries or strawberries makes a big difference.

### **Way 11:7 Delicious foods that lower blood pressure**

Here are some of the best foods that can bring down our blood pressure. The important point is that they are all nutritious as well as delicious.

1. Banana – Whenever we crave for a snack, banana might be a good choice. This fruit is loaded with the mineral potassium that lowers blood pressure. In fact a research has shown that eating 2 bananas a day regularly can bring down blood pressure by nearly 10 percent.
2. Eggs – Perhaps we all like scrambled eggs or omelet for our breakfast. Eggs are known to contain a peptide compound that lowers blood pressure. It is supposed to be about as effective as a low dose of a prescription drug. And just to be clear, the cholesterol danger of eggs is nothing but a myth.
3. Tomato – We can try swapping our beverage for tomato juice if high blood pressure is our ailment. The chemical compound in tomatoes called 'lycopene' is known to lower blood pressure. For example, 25 milligrams of lycopene (the amount found in a cup of tomato juice) is perfect for lowering LDL (bad) cholesterol by up to 10 percent.
4. Dark chocolate – We can eat dark chocolate to our heart's content as it has a good effect at controlling blood pressure. Patients with hypertension and pre-hypertension who ate small quantities of dark chocolate for 18 weeks showed about 20 percent decrease in blood pressure.
5. Watermelon – Watermelon is a good choice of fruit to consume regularly. It is a rich source of the amino acid L-citrulline that regulates blood pressure.
6. Raisins – These sweet little treats are perfect for cutting down blood pressure. A research study has shown that patients who snacked on raisins 3 times a day for 12 weeks showed a considerable decrease in systolic and diastolic blood pressure.
7. Hibiscus – Do we care to try a cup of hibiscus tea? Research shows that sipping this tea for 6 weeks reduced the blood pressure by up to 7 points in slightly hypertensive patients.

### **Way 12: Regular exercise can reduce blood pressure**

A study conducted by the National Health Research Institute in Taiwan, shows how exercising regularly drastically reduces the risk of death from cardiovascular disease, especially if we have high blood pressure.

The study spanned over a period of 12 years and involved 434,190 participants. Among them, just 24% are moderately or more active while 22% showed low activity and 54% are classified as having an 'inactive' lifestyle.

Not surprisingly, death due to cardiovascular disease was much higher among participants who had an inactive lifestyle. Now we all know how dangerous it is to our heart to have high blood pressure. But the researchers found that being inactive was as lethal as a 50-point rise in blood pressure.

So if our blood pressure is borderline (say 140/90), and we live a sedentary lifestyle, it is as dangerous to our health as having a blood pressure of 190/140. Similarly, even if we have high blood pressure, but workout regularly, our hypertension is not as dangerous.

According to some studies, if we exercise regularly but still spend about 9 hours sitting in front of the computer, we are still under risk. So even at work, take breaks often and use the stairs whenever we can. Little things sometimes can make a big difference.

## **Conclusion**

As we know that blood pressure (BP) is the pressure exerted by circulating blood upon the walls of blood vessels. It varies depending on situation, activity, and disease states. It is regulated by the nervous and endocrine systems. Both low and high blood pressure have many causes which can range from mild to severe. Both may be of sudden onset or of long duration. Long term hypertension is a risk factor for many diseases, including kidney failure, heart disease, and stroke. Long term hypertension is more common than long term hypotension in many countries of the world. Long term hypertension often goes undetected because of infrequent monitoring and the absence of symptoms.

However, in order to lower our blood pressure we need to follow the above-mentioned ways. Along with this we may need to take medications to lower our blood pressure. If we are drinkers or smokers, we must quit it immediately to lower our blood pressure as well as to improve our overall health condition. If we have a bad habit to eat too much salt, we need quit it as well. We also need to enjoy regular physical activity for about one hour at least five days a week to feel a better life. Last but not least, we should maintain a healthy weight. Unfortunately, if we are not at a healthy weight, we must do it by eating less fat or even no fat foods. This might help to reduce our risk of having serious health problems.