

10
EXOTIC
SPICES
THAT
LOWER
BLOOD
PRESSURE



Introduction

Spices are incredible additions to any food. Far more than mere flavor enhancers, spices increase the medicinal value of the food you eat, have almost zero caloric content and are extremely safe and inexpensive. Of course medicinal doses and preparations will exhibit the strongest and most pointed effects, however, with stronger potency and specificity comes the danger of side effects, absorption difficulty and the basic hassle of procurement and consumption.

If one takes a different attitude, an attitude in which the ‘war’ on your hypertension need not be won by using massively powerful weapons; then you could advocate small inclusions into your life which, on their own do not constitute much of an intervention, nor do they produce perceptible results in the short term. However, over the long term the mere increase of the consumption of these spices in your daily diet, along with healthier living, better sleep, and a thousand other such effortless healthy additions will add up to a complete and utter improvement in your body.

The battle does not win the war - the biggest weapons cause as much damage as good. The natural way, the healthy way – in a sense the only way – is to change those practices that you have spent your whole life habituating. Little by little the body is transformed to reflect a completely different way of being and it can all start with the inclusion of the above spices into your diet. At the very least one’s menu will change and become refreshed – no small thing either.

What is High Blood Pressure (Hypertension)?

Before we can begin to talk about *high* blood pressure we need to understand what blood pressure actually is in the first place. Essentially, blood pressure is a human measure of the force your blood exerts on the walls of your arteries from the inside toward the outside. To be a bit more specific, when blood pressure is measured, we take two readings, the first reading is a measure of the average pressure your blood exerts on the arteries when the chambers of your heart (ventricles) contract to force blood through the circulatory system – this first measure of blood pressure is called systolic blood pressure. The second measurement taken measures the average force exerted on

your arteries in between contractions and is called our diastolic pressure.¹

When medical scientists first started measuring the average force exerted by blood on the arteries during the heartbeat cycle they had no idea what results were normal or abnormal. Furthermore, they had no idea whether blood pressure was in any way linked to health, wellness or disease.

Over time, enough data has been collected to correlate certain blood pressure measurement values with certain states of health, disease, age, states of mind and many other factors. This is in fact the way the scientific method expands our knowledge, and in the case of medicine, theory leads to observation, leads to theory, which leads to observation and so on in an endless cycle.

Across all populations, globally, the generally accepted upper limit of 'normal healthy blood pressure' is 120 mmHg (systolic) over 80(diastolic) mmHg with an ideal measurement being somewhere around the 115 mmHg over 75 mmHg mark. Indeed, relatively small deviations in blood pressure occur constantly in every human body over the course of a normal day. However, chronic sustained measurements outside of one standard deviation of the 120 mmHg over 80 mmHg marks have been clearly and strongly correlated with various pathological conditions. This fact has become clearer and clearer since the blood pressure measurement data set became large enough to have a very high confidence interval for any correlative inferences.

Consider 'abnormal' blood pressure to be merely an indicator (not confirmation) of something being awry. Perhaps an anatomical peculiarity, or perhaps extreme levels of cardiovascular fitness, or, as is unfortunately most common, an indication of some pathological process that has led to the abnormal result albeit that no clear medical

¹http://www.heart.org/HEARTORG/Conditions/HighBloodPressure/AboutHighBloodPressure/Understanding-Blood-Pressure-Readings_UCM_301764_Article.jsp#.VpScsI3TmUk

reason can be found, there has to yet be a cause somewhere. This is the way one should approach one's blood pressure readings. In a formal way, hypertension is either defined as 'primary' (essential) or 'secondary'. Approximately 90% of all cases of elevated hypertension are classed as 'essential', meaning that the elevated blood pressure exists without any clear medical cause for it. The remaining 10% are classed as 'secondary' which means that some clear medical cause can be identified for the blood pressure reading, common causes that lead to secondary hypertension are medical conditions that affect the functioning of kidneys, arteries, endocrine system, or heart.^{2 3}

The fun drink that makes you skinny? (try it tonight!)

Imagine if you could go out every weekend, have fun, drink alcohol, do ZERO exercise all week, and still burn belly fat.

Scientists at Washington State University have found that a little known ingredient found in [a very specific alcoholic drink](#) can increase your body's fat-burning powers by up to 370% - allowing you to burn 1-2 pounds of belly fat overnight, and achieve life-changing weight loss in less than 30 days.

[>> Click here to reveal the alcoholic drink that makes you skinny.](#)

Unfortunately, high blood pressure on its own can lead to physical illness and anatomical and systemic damage or malfunction. Thus, many people are under the impression that high blood pressure is some kind of disease that, like any other disease, can be 'diagnosed', 'treated', 'managed' and hopefully cured. There is some truth to taking

² Carretero OA, Oparil S. Essential hypertension. Part I: Definition and etiology. *Circulation*. 2000;101:329-35.

³ Beevers G, Lip GY, O'Brien E. ABC of hypertension: The pathophysiology of hypertension. *BMJ*. 2001;322:912-6.

such a view, although it is hopefully clear from the discussion above that the real factors at play with hypertension are whatever caused the elevated pressure in the first place, not the hypertension itself. However, given that hypertension itself can cause damage to the body it is useful to wisely and carefully manage it until the underlying causes can be removed so that further, future damage is prevented.

A number of factors contribute to elevated blood pressure, including genetics, stress, diet, smoking, and lack of exercise. Because it is largely symptomless, hypertension is known as the “silent killer,” which is why it is so important to have your blood pressure checked regularly.

Persistent hypertension is a clear risk factor for strokes, heart attacks/failure, and aneurysms, as well as severe kidney damage.⁴ Even mild or moderately elevated blood pressure is associated with shorter life expectancy. To list the complications clearly, the following medical pathological conditions are all ones in which high blood pressure is a major risk factor for:

- heart attack
- stroke
- diabetes
- heart failure
- kidney disease
- vision loss
- metabolic syndrome

According to research data, one’s risk for cardiovascular disease actually doubles for every 20 mmHg systolic and 10 mmHg diastolic pressure increase above 115/75 mmHg.⁵ Even more worrying is the fact that half of adults *globally* have blood pressure in the 120/80 mmHg and 140/90 range.⁶ People in the 120/80 mmHg to 140/90

⁴ Pierdomenico SD, Di Nicola M, Esposito AL, Di Mascio R, Ballone E, Lapenna D, et al. Prognostic value of different indices of blood pressure variability in hypertensive patients. *Am J Hypertension*.

⁵ Chobanian AV, Bakris GL, Black HR, et al. Seventh report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. *Hypertension*. Dec 2003;42(6):1206-1252.

⁶ Egan BM, Stevens-Fabry S. Prehypertension--prevalence, health risks, and management strategies. *Nature reviews. Cardiology*. May 2015;12(5):289-300.

mmHG range fall into what is called “prehypertensive” range, however, being in this range of blood pressure immediately correlates with up to a 20% increased risk for kidney dysfunction – especially in the elderly.⁷ Another disturbing result showed that even in this blood pressure range, (which is considered mild, or prehypertensive) have roughly double the likelihood of developing cardiovascular disease when compared with people that have blood pressure below 120/80 mmHg.⁸

In 2002 a study was done⁹ that showed that lower blood pressure was always associated with lower risks of kidney dysfunction and far less risk of cardiovascular diseases such as stroke or heart disease.

Finally, the prevalence rate for full blown hypertension (higher than the ‘prehypertensive’ range) in the United States of America stands at roughly one in three individuals.¹⁰ Make no mistake about it, hypertension is here and the stats are not in our favor.

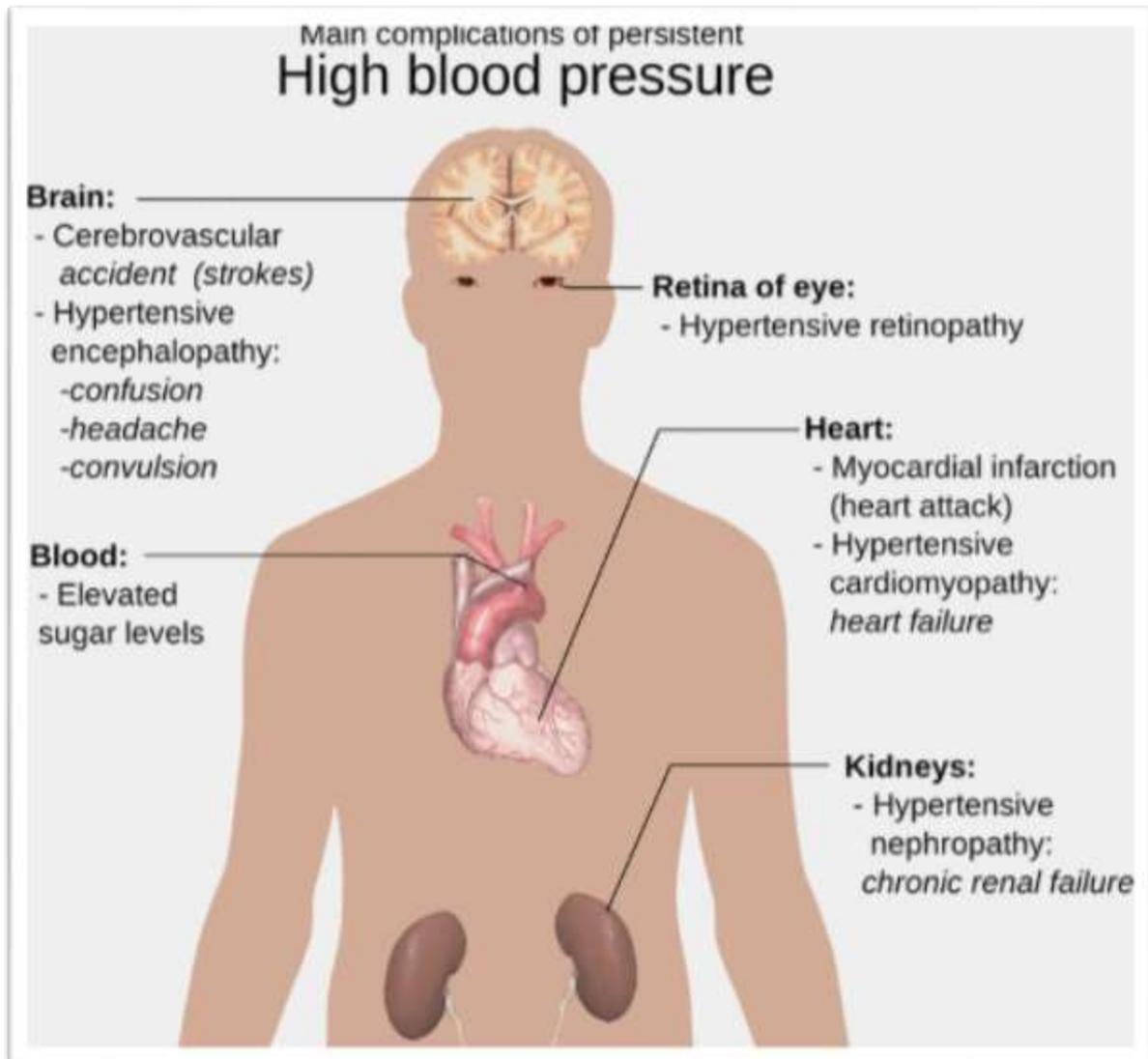
If you earnestly take the attitude mentioned in the introduction to this work to heart and carefully follow the discussions of each spice talked about in the next section, then the prevalence stats need no longer be any cause for personal alarm. The road to health begins today with the simple addition of ten powerful antihypertensive exotic spices into your meals. May your diet be interesting, varied and healthy.

⁷ Garofalo C, Borrelli S, Pacilio M, et al. Hypertension and Prehypertension and Prediction of Development of Decreased Estimated GFR in the General Population: A Meta-analysis of Cohort Studies. *American journal of kidney diseases : the official journal of the National Kidney Foundation*. Oct 13 2015

⁸ Kshirsagar AV, Carpenter M, Bang H, Wyatt SB, Colindres RE. Blood pressure usually considered normal is associated with an elevated risk of cardiovascular disease. *The American journal of medicine*. Feb 2006;119(2):133-141.

⁹ Lewington S, Clarke R, Qizilbash N, Peto R, Collins R. Age-specific relevance of usual blood pressure to vascular mortality: a meta-analysis of individual data for one million adults in 61 prospective studies. *Lancet*. Dec 14 2002;360(9349):1903-1913.

¹⁰ <http://www.cdc.gov/bloodpressure/facts.htm>



Different Kinds of High Blood Pressure

Hypertension can be classified into finer and finer sub-definitions depending on the granularity of the measurement required and according to the specific clinical context. Some of the different sub-classifications include hypertension stage I, hypertension stage II, and isolated systolic hypertension.

Isolated systolic hypertension is just the term used by physicians to describe a person who has elevated systolic blood pressure, but normal range diastolic blood pressure – this kind of hypertension is more commonly seen in the elderly.

How are these classifications made? A physician will take a number of readings over different consultations to create an average blood pressure reading. If the average measure of individuals older than 50 years of age is 140 mmHg over 90 mmHg then they are classed as having hypertension (in a formal sense). Other categories of diagnosis include patients with diabetes or kidney disease who present with an average blood pressure higher than 130/80 mmHg would be seen to have hypertension and therefore would require further treatment.

Hypertension that does not respond to pharmaceutical therapy would be classed as ‘resistant hypertension’.¹¹ Another kind of hypertension is called ‘exercise hypertension’ which is simply an excessively high blood pressure reading during exercise.¹² What blood pressure reading is considered excessively high during a period of intense exercise? Peak systolic values in the normal range during exercise that are between 200 mmHg and 230 mmHg are considered normal.¹³

Although this discussion of the different types of hypertension may seem far too detailed for a book of this nature it is the author’s firm belief that knowing these different types of hypertensive measurements empowers people to get to know their own conditions and make informed healthy choices. If you have hypertension, then it is good to know ‘what is what’. In the case of ‘exercise hypertension’ the measurement implies that under heavy load, the cardiovascular system is under extreme stress – far more than the majority of people who do the same exercises. This is a great way to perhaps take preventative

¹¹ Chobanian AV, Bakris GL, Black HR, Cushman WC, Green LA, Izzo JL, Jr, et al. Seventh report of the joint national committee on prevention, detection, evaluation, and treatment of high blood pressure. *Hypertension*. 2003;42:1206–52.

¹² Jetté M, Landry F, Blümchen G. Exercise hypertension in healthy normotensive subjects. Implications, evaluation and interpretation. *Herz*. 1987;12:110–8.

¹³ Pickering TG. Pathophysiology of exercise hypertension. *Herz*. 1987;12:119–24.

measures before one develops resting state hypertension which can be extremely serious.¹⁴ In essence, this book presents a natural skillful way to change something small that along with many other small incremental changes the body to return back to a natural healthy potential – a state of radiance.

The Causes of Hypertension

Essential Hypertension

Essential hypertension is the most common type of hypertension diagnosed, meaning that the vast majority of cases of hypertension appear without clinicians understanding why – alarming to say the least.¹⁵

Although clinicians cannot find any direct causes for essential hypertension, there is much research data incriminating various risk factors like lifestyle, diet and smoking as possibly conspiring to bring about elevated blood pressure – however, without understanding how these risk factors actually could cause hypertension the fact remains that clinicians don't really understand the mechanisms underlying 90% of all hypertensive cases.

¹⁴ Rost R, Heck H. Exercise hypertension-significance from the viewpoint of sports (in German) Herz. 1987;12:125–33.

¹⁵ Carretero OA, Oparil S. Essential hypertension.Part I: Definition and etiology. Circulation. 2000;101:329–35.

At present, there are many risk factors thought to lead to essential hypertension, in addition to those already alluded to above, the following are also implicated as risk factors:

- Potassium deficiency¹⁶
- Obesity^{17 18}
- Table salt sensitivity¹⁹
- Alcohol consumption²⁰
- Vitamin D deficiency²¹
- Aging (older is more likely)²²,
- Genetic mutations²³ and having a
- A family history of hypertension²⁴.
- High renin levels²⁵
- Sympathetic nervous system hyperactivity.²⁶
- Insulin resistance²⁷.

¹⁶ Kyrrou I, Chrousos GP, Tsigos C. Stress, visceral obesity, and metabolic complications. *Ann N Y Acad Sci.* 2006;1083:77–110.

¹⁷ Wofford MR, Hall JE. Pathophysiology and treatment of obesity hypertension. *Curr Pharma Design.* 2004;10:3621–37.

¹⁸ Haslam DW, James WP. Obesity. *Lancet.* 2005;366:1197–209.

¹⁹ Lackland DT, Egan BM. Dietary salt restriction and blood pressure in clinical trials. *Curr Hypertens Rep.* 2007;9:314–9.

²⁰ Djoussé L, Mukamal KJ. Alcohol consumption and risk of hypertension: Does the type of beverage or drinking pattern matter? *Rev Esp Cardiol.* 2009;62:603–5.

²¹ Lee JH, O’Keefe JH, Bell D, Hensrud DD, Holick MF. Vitamin D deficiency an important, common, and easily treatable cardiovascular risk factor. *J Am Coll Cardiol.* 2008;52:1949–56.

²² Tuohimaa P. Vitamin D and aging. *J Steroid Biochem Mole Biol.* 2009;114:78–84.

²³ Dickson ME, Sigmund CD. Genetic basis of hypertension: Revisiting angiotensinogen. *Hypertension.* 2006;48:14–20.

²⁴ Luma GB, Spiotta RT. Hypertension in children and adolescents. *Am Fam Physician.* 2006;73:1558–68.

²⁵ Segura J, Ruilope LM. Obesity, essential hypertension and renin-angiotensin system. *Pub Hlth Nutr.* 2007;10:1151–5.

²⁶ Sorof J, Daniels S. Obesity hypertension in children: A problem of epidemic proportions. *Hypertension.* 2002;40:441–7.

²⁷ Hwang IS, Ho H, Hoffman BB, Reaven GM. Fructose-induced insulin resistance and hypertension in rats. *Hypertension.* 1987;10:512–6.

Secondary hypertension

Secondary hypertension always arises in dependence on a *recognized* cause. Commonly recognized causes for secondary hypertension include:

- Cushing's syndrome, (Over production of cortisol by the adrenal glands)²⁸.
- Hyperthyroidism
- Hypothyroidism, and
- Adrenal cancer.
- Kidney disease,
- Obesity/metabolic disorder,
- Pre-eclampsia (common during pregnancy),
- Certain prescription and illegal or recreational drugs.

The reason for needing to be clear about which kind of hypertension one has is because healthcare professionals treat the two kinds of hypertension differently. In secondary hypertensive treatment, the main focus of therapeutic activity is on the treatment of the recognized cause which, if successfully resolved should lead to an abatement of the symptoms of hypertension. In the case of primary hypertension, management of blood pressure is done via dietary, lifestyle and pharmaceutical measures. Unfortunately many of the pharmaceutical measures have extremely serious and debilitating side-effects.

In the next major section we explore some of the amazing antihypertensive properties of ten of the most exotic herbs and spices on the planet. Each spice that is presented can be included into daily meals by anyone who would wish to do so. Not only can you help your blood pressure, but it is also a great way to expand your cooking repertoire to include some new and exotic flavors and meals – bon appetite!

²⁸ Dodt C, Wellhöner JP, Schütt M, Sayk F. Glucocorticoids and hypertension (in German) Der Internist. 2009;50:36-1.

10 Exotic Spices That Alleviate Hypertension

Garlic

Garlic is an antibacterial, antioxidant, lipid reducing, immune boosting, blood thinning wonder herb; which makes it one of the most important spices on our list. Almost every exotic food from any culture uses garlic in their recipes. Why? It tastes fantastic; is extremely versatile - seeing use in cultural cuisine across the whole planet; and, it has multiple health benefits. Apparently it helps keep vampires away too! Perhaps this has to do with the fact that drinking the blood of people with lower blood pressure is more work?!...Then again, perhaps not.

Garlic has been used for a number of heart and blood vessel linked health conditions notably hyperlipidemia. However, it is Garlic's hypotensive (blood pressure lowering) action that is our main focus here.

Olive Oil vs Coconut Oil vs Vegetable Oil (which is best?)

Guess which simple everyday cooking oil has been shown to reverse memory loss and cure Alzheimer's and other forms of dementia.

Is it...

- A) [Olive oil](#)
- B) [Coconut oil](#)
- C) [Vegetable oil](#)
- D) [Sunflower oil](#)

Have a guess and see if answered correctly, [right here](#)



The mechanism whereby Garlic functions as a hypotensive is thought to derive from increased nitric oxide production, which results in smooth the relaxation of the smooth muscles responsible for constricting blood vessels.

Another main mechanism of the hypotensive action seen in garlic consumption is thought to be via the bio-active properties of allicin. Allicin is the main chemical in garlic responsible for its pungent odor and as well as most of garlic's long list of beneficial medicinal qualities.

Studies have shown that garlic leads to a decrease in systolic blood pressure in those patients who have elevated systolic blood pressure.²⁹ Other studies have found that supplemental garlic preparations

²⁹ Reinhart KM, Coleman CI, Teevan C, Vachhani P, White CM. Effects of garlic on blood pressure in patients with and without systolic hypertension: A meta-analysis. *Ann Pharmacother.* 2008;42:1766-71.

outperform placebo in groups with hypertension.³⁰ Garlic has been found to be protective of cardiac function overall due to antioxidant effects (raised vitamin C and Vitamin E levels), antihypertensive effects and influences in nitric oxide functioning.³¹

Further studies have shown that allicin, when given to hypertensive patients, significantly decreased their sitting diastolic blood pressure. Another study done in 2009 showed that fresh garlic was more effective at lowering blood pressure than processed forms of garlic – definitely good news for us. So bear in mind that all garlic has anti-hypertensive and cardio protective properties, just that fresh garlic is more potent than processed or cooked garlic. Try adding fresh, uncooked garlic to your meals for best effects.³²

French Lavender



Lavender is already famous for its exquisite fragrance and beautiful color. Also known by many are the numerous beneficial properties that

³⁰ Ried K, Frank OR, Stocks NP, Fakler P, Sullivan T. Effect of garlic on blood pressure: A systematic review and meta-analysis. *BMC Cardiovasc Disord.* 2008;8:13.

³¹ Dhawan V, Jain S. Garlic supplementation prevents oxidative DNA damage in essential hypertension. *Mol Cell Biochem.* 2005;275:85-94.

³² <http://www.allicinfacts.com/allicin01.htm>

essential oil extractions and preparations of French Lavender have. Oils from the French Lavender plant have been included in perfumes and used as an aid to relaxation for hundreds, if not thousands of years. What makes French Lavender so utterly exotic is that it can be used as a culinary spice, one that actually has antihypertensive properties too. Extracts of French Lavender have been found to be effective at inducing lower blood pressure in animal models, particularly in rats, which have very similar baseline physiology to humans.³³

The difficulty in using this herb as a spice for your culinary creations lies in the extremely potent, almost overpowering flavor that lavender has, however if you use lavender in a similar way to the manner in which rosemary is used then new and interestingly flavored dishes await the adventurous – just remember to use as little as possible in the beginning until you find the perfect point of balance where the flavor of the lavender blends with the meal, rather than dominating the palate.

However, in the opinion of the author, the best use of lavender is in baking, particularly with chocolate. Raw cacao and chocolate when combined with prudent use of French Lavender can make for some of the most amazing sweet treats you could ever imagine tasting. What's more, chocolate, if made with high quality raw organic cacao, contains very high levels of resveratrol which is one of the most potent antioxidants on the planet which is just making waves in both mainstream and alternative circles of professional health practice.

Flaxseed

Flax is an annual plant originating in Egypt and the seeds from the flax plant are rich in omega-3 fatty acids (such as α -linolenic acid), which have been found to lower blood pressure significantly. Flaxseed may

³³ Gilani AH, Aziz N, Khan MA, Shaheen F, Jabeen Q, Siddiqui BS, et al. Ethnopharmacological evaluation of the anticonvulsant, sedative and antispasmodic activities of *Lavandula stoechas* L. J Ethnopharmacol. 2000;71:161–7

protect³⁴ against atherosclerotic cardiovascular disease by reducing serum cholesterol, improving glucose tolerance and acting as an antioxidant. Furthermore there is some evidence to indicate that a number of mechanisms are likely to account for these protective effects such as reduction in inflammation, reduced blood clotting (platelet aggregation) and improved glucose tolerance – however, at this time the actual 'nitty gritty' of the underlying mechanism remain unclear. One study found that daily consumption of flaxseed (between 15g and 50g per day) has cholesterol and LdL (low density lipoproteins) lowering effects without changing triglyceride or HdL (high density lipoproteins) concentrations which is simply remarkable from a cardiovascular health perspective.³⁵

The best way to incorporate flaxseed in your diet is to purchase a bag of whole seeds and then grind them up in a coffee grinder to make a coarse powder. One can add this ground flaxseed powder to almost every savory meal since it has a minimal taste. Flaxseed is considered by some to be a 'superfood' or 'supernutrient' since it contains many proteins and essential fatty acids which aid in the absorption of nutrients, maintain brain function and, for our purposes, lowers blood pressure.

³⁴ <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3210006/>

³⁵ Bloedon LT, Szapary PO. Flaxseed and cardiovascular risk. *Nutr Rev.* 2004;62:18-27.

Cinnamon



Cinnamon is the quintessential ‘exotic’ spice. It has an aromatic, intense flavor that complements main dishes, desserts, and even drinks like teas, coffees, juices and smoothies amongst many others. Cinnamon’s versatility alone would be sufficient reason to label it a “treasure”; however, this is not the whole story. Cinnamon has many beneficial interactions in the body that have so far been described by multiple studies. Evidence has emerged in the scientific literature describing several interesting medicinal properties of cinnamon which make it useful in alleviating the symptoms of heart disease and diabetes. Thus, the treasure of cinnamon is to add a unique ‘spiciness’ to food whilst also being fantastically beneficial to the body given particular circumstances.

One good scientific study discovered that people who drank a glass of water containing 250mg of dissolved cinnamon had increased levels (as much as 23% higher in some cases) of endogenous antioxidants known to lower blood pressure. This research strongly indicates adding

some cinnamon to your daily cups of tea, whilst adding it to meals could lead to some sparkling and different exotic recipes.

Other studies in animal trials and human studies have repeatedly recorded the significant blood pressure lowering effects of cinnamon.³⁶

³⁷ ³⁸ Interestingly, a preparation of the cinnamon stem bark has been shown to reduce the effects of sucrose (sugar) induced elevated systolic blood pressure as well as reducing the contractility of rat aortic rings due to interactions with potassium, salt transportation and nitrous oxide concentration mechanisms.³⁹ ⁴⁰ ⁴¹ Different preparations of cinnamon have also been shown to elevate Nitrous oxide levels in hypertensive rats.⁴²

From the above studies it can be seen that the leading contenders to explain the antihypertensive qualities of cinnamon are its effects on calcium channel and potassium transport systems, nitrous oxide enriching effects and interactions in diabetic induced hypertension due to hyperglycemia although recent studies have shed some doubt⁴³ on the last mechanism mentioned, the last word is still to be said since of the studies that are casting doubt since they themselves have also

³⁶ Nyadjeu, P., Dongmo, A., Ngudefack, T.B., and Kamanyi, A. (2011). Antihypertensive and vasorelaxant effects of *Cinnamo mumzeylanicum* stem bark aqueous extract in rats. *J. Complement. Integr. Med.* 8. doi:10.2202/1553-3840.1490

³⁷ Nyadjeu, P., Ngudefack-Mbuyo, E.P., Atsamo, A.D., Ngudefack, T.B., Dongmo, A.B., and Kamanyi, A. (2013). Acute and chronic antihypertensive effects of *Cinnamo mumzeylanicum* stem bark methanol extract in L-NAME-induced hypertensive rats. *BM C Complement. Altern. Med.* 13:27. doi:10.1186/1472-6882-13-27

³⁸ Akilen, R., Pimlott, Z., Tsiami, A., and Robinson, N. (2013). Effect of short-term administration of cinnamon on blood pressure in patients with prediabetes and type 2 diabetes. *Nutrition* 29, 1192–1196. doi:10.1016/j.nut.2013.03.007

³⁹ Preuss, H.G., Echard, B., Polansky, M.M., and Anderson, R. (2006). Whole cinnamon and aqueous extracts ameliorate sucrose-induced blood pressure elevations in spontaneously hypertensive rats. *J. Am. Coll. Nutr.* 25, 144–150. doi:10.1080/07315724.2006.10719525

⁴⁰ Nyadjeu, P., Dongmo, A., Ngudefack, T.B., and Kamanyi, A. (2011). Antihypertensive and vasorelaxant effects of *Cinnamo mumzeylanicum* stem bark aqueous extract in rats. *J. Complement. Integr. Med.* 8. doi:10.2202/1553-3840.1490

⁴¹ Ibid.

⁴² Nyadjeu, P., Ngudefack-Mbuyo, E.P., Atsamo, A.D., Ngudefack, T.B., Dongmo, A.B., and Kamanyi, A. (2013). Acute and chronic antihypertensive effects of *Cinnamo mumzeylanicum* stem bark methanol extract in L-NAME-induced hypertensive rats. *BM C Complement. Altern. Med.* 13:27. doi:10.1186/1472-6882-13-27

⁴³ Azimi, P., Ghiasvand, R., Feizi, A., Hosseinzadeh, J., Bahreynian, M., Hariri, M., et al. (2016). Effect of cinnamon, cardamom, saffron and ginger consumption on blood pressure and a marker of endothelial function in patients with type 2 diabetes mellitus: a randomized controlled clinical trial. *Blood Press.* doi: 10.3109/08037051.2015.1111020.

come under serious critical review – further work must be done to clarify the mechanisms adequately. In the meantime, adding cinnamon to sweet desserts adds a wonderful fiery and spicy flavor whilst also ameliorating the effects of blood pressure spikes due to high sugar intake. Adding cinnamon to stir fries, curries and various other exotic dishes tends to deepen and enrich their flavor. Don't miss out on including this one in your cups of tea either, it can turn each cup into a delicious full bodied experience.

Saffron



Saffron is indigenous to Greece, Spain, Morocco and the general Southwest Asian region (in particular India, Pakistan and Iran). Since the active parts of the saffron flowers that are harvested for use are tiny, a massive amount of saffron is needed to harvest only the tiniest amounts. This fact, coupled with the fact that saffron is essentially a sterile plant, makes the cultivation of bulbs into flowering harvestable

plants extremely difficult and massively resource consuming in terms of labor, water and so on.

Is THIS Bathroom Habit Really the Cause of Your Hearing Loss?

You wake up in the morning.

Brush your teeth.

And then you do [THIS](#).

Could this everyday bathroom habit be KILLING your hearing?

That's exactly what Harvard Medical School has concluded in a recent study.

In fact, **doing [this just twice a week](#)** was shown to increase hearing loss by up to 24%.

The cost and inefficiency of Saffron cultivation is what makes this spice the most financially valuable spice of all spices on the planet with costs per gram of saffron more often than not exceeding the value of gold on the open market. Saffron is scarce, valuable, exotic and extremely sensuously tasty. These days the most common use of saffron in cuisine is in paella (Spanish seafood dishes) however there are countless delicious and exotic recipes that exist which include many variations of traditional Italian risotto based meals and interesting seafood variations. The general opinion is that saffron goes extremely well with seafood.

If this were the whole story of Saffron then it wouldn't be included here in this book, however, Saffron has been prized for its medicinal virtues for well-nigh over 4000 years and it's elusiveness, rarity and value has

influenced the ancient Greeks including Alexander the Great, and many cultures since.⁴⁴

Modern investigations into this most exotic of all exotic spices has revealed that Saffron has multiple beneficial medicinal uses. Findings have isolated the main active components of the saffron plant and identified four key molecules, crocin, safranal, picrocin and crocetin as being largely responsible for its bio-active effects on the human body.⁴⁵

⁴⁶ Each of the four molecules found in saffron exhibit different mechanisms of action in the body which explains why saffron has such a diversity of effects and wide range of applications to healing and health.⁴⁷ Some of the medicinal uses of saffron are listed below:

- A study showed that 400mg of saffron (in tablet form) administered over just one week significantly reduced systolic blood pressure and mean arterial pressure by as much as 11 and 5 mmHg respectively.⁴⁸ Saffron can thus be considered as a potent antihypertensive.
- Different animal models have repeatedly shown how extracts of the petals of the saffron plant (which are rich in anthocyanins and flavonoids) consistently and significantly reduced high blood pressure in rats and other species.⁴⁹

⁴⁴ Srivastava, R. , Ahmed, H. , Dixit, R.K. , Dharamveer, and Saraf, S.A. (2010). *Crocus sativus* L. : a comprehensive review. *Pharmacogn .Rev.* 4,200–208.doi: 10.4103/0973-7847.70919

⁴⁵ Ibid.

⁴⁶ Mehdizadeh, R. , Parizadeh, M.R. , Khooei, A.R. , Mehri, S. , and Hosseinzadeh, H. (2013). Cardioprotective effect of saffron extract and safranal in isoproterenol- induced myocardial infarction in wistar rats. *Iran J. Basic Med. Sci.* 16, 56–63.

⁴⁷ Mokhtari-Zaer, A. , Khazdair, M.R. , and Boskabady, M.H. (2015). Smooth muscle relaxant activity of *Crocus sativus* (saffron) and its constituents: possible mechanisms. *Avicenna J. Phytomed.* 5,365–375.

⁴⁸ Modaghegh, M.H. , Shahabian, M. , Esmaeili, H.A. , Rajbai, O. , and Hosseinzadeh, H. (2008). Safety evaluation of saffron (*Crocussativus*) tablets in healthy volunteers. *Phyto medicine* 15,1032-1037. doi:10.1016/j.phymed.2008.06.003

⁴⁹ Fatehi, M. , Rashidabady, T. , and Fatehi-Hassanabad, Z. (2003). Effects of *Crocus sativus* petals' extract on rat blood pressure and on responses induced by electrical field stimulation in the rat isolated vas deferens and guinea-pig ileum. *J. Ethnopharmacol.* 84,199–203.doi:10.1016/S0378-8741(02)00299-4

- Extracts from the stigma of the saffron plant has also shown antihypertensive activity in lab testing.⁵⁰
- Saffron has also been found to induce the relaxation of non-vascular muscle tissue in addition to vascular smooth muscle tissue. Saffron has been shown to reduce heart rate and offer cardio-protective qualities when ingested amongst other findings.^{51 52 53}

In short, saffron is tasty, remarkable, other-worldly and unique in that it has a broad range of cardiovascular benefits that can help everything from relaxation and eyesight to lowering blood pressure and protecting against heart disease. The only drawback is that we can see is that saffron is extremely expensive in that it is gram for gram more valuable than gold. Cooking with saffron can also be a challenge to the inexperienced since the herb has an extremely subtle quality that can easily be overshadowed if not handled delicately. Saffron is the flower of the east, a gentle and soothing goddess and cooking with her requires a sensitive, responsive and intelligent and sophisticated palate. If you have enough saffron to go around then popping some into hot water and steeping it as a tea can create an unusually flavored experience that can directly lower blood pressure and alleviate many eye maladies that arise due to vasculature enervation of the retina – be advised though, it may be the most expensive cup of tea you will ever drink.

⁵⁰Imenshahidi, M. , Hosseinzadeh, H. , and Javad pour, Y. (2010). Hypotensive effect of aqueous saffron extract (*Crocus sativus* L.) and its constituents, safranal and crocin, in normotensive and hypertensive rats. *Phytother. Res.* 24,990–994. doi: 10.1002/ptr.3044

⁵¹ Imenshahidi, M., Razavi, B.M., Faal, A., Gholampoor, A., Mousavi, S.M., and Hossein zadeh, H. (2015). The effect of chronic administration of safranal on systolic blood pressure in rats. *Iran J. Pharm. Res.* 14,585–590.

⁵² Boskabady, M.H. , Shafei, M.N. , Shakiba, A. , and Sefidi, H.S. (2008). Effect of aqueous-ethanol extract from *Crocus sativus* (saffron) on guinea-pig isolated heart. *Phytother. Res.* 22,330–334. doi:10.1002/ptr.2317

⁵³ Bharti, S. , Golechha, M. , Kumari, S. , Siddiqui, K.M. , and Arya , D. S. (2012). Akt/GSK-3beta/eNOS phosphorylation arbitrates safranal-induced myocardial protection against ischemia-reperfusion injury in rats. *Eur. J. Nutr.* 51,719–727. doi:10.1007/s00394-011-0251-y

Cardamom



No trip to India or Egypt could happen without running into this spice. Cardamom is the essence of many Indian curries and the aromatic mystery contained in some Arabic coffees. Cardamom can certainly be described as exotic from the perspective of the Western palate.

Aside from Cardamom's striking and unusual flavor it has multiple beneficial qualities that make it a powerful medicinal agent. Most of Cardamom's medicinal effects center on the cardiovascular system and its health. A study published in the *Indian Journal of Biochemistry and Biophysics*⁵⁴ found that when subjects with clear cases of primary hypertension took 3g of cardamom powder daily for three months they experienced significant decreases in diastolic and systolic blood pressure readings. Furthermore, participants in that study also

⁵⁴ Verma,S.K.,Jain,V,and Katewa,S.S.(2009).Blood pressure lowering, fibrinolysis enhancing and antioxidant activities of cardamom (*Elettaria cardamomum*). *Indian J. Biochem Biophys.* 46,503–506.

exhibited markedly improved antioxidant levels and faster blood clot dissolution rates – all without any significant reductions in fibrinogen and blood lipid levels.

Cardamom exhibits all the classic characteristics of an exotic medicinal spice – Aromatic and striking flavors with powerful effects on the body in moderate to high doses.

Cardamom is a seasoning that comes from India and is often used in the foods of South Asia. A study⁵⁵ investigating the health effects of cardamom found that participants given powdered cardamom daily for several months saw significant reductions in their blood pressure readings. You can include cardamom seeds or the powder in spice rubs, in soups and stews, and even in baked goods for a special flavor and a positive health benefit.

In anesthetized rats, 3– 100mg/kg of *cardamom* crude extract was also able to reduce blood pressure. In the same model, 1–10mg/kg of the crude extract exhibited diuretic effects⁵⁶. It also relaxed pre-constricted rat aortic rings with a concentration of 2.94mg/ml, possibly by inhibiting Ca₂₊ movement through trans-membrane calcium channels⁵⁷.

Ginger

Ginger root is an extremely potent modulator of multiple cardiovascular processes including the property of alleviating hypertension. It can thus be considered an effective antihypertensive spice. In Chinese medicine, ginger has been consistently and commonly prescribed for the treatment of digestive system problems like nausea, vomiting, feeling bloated, and diarrhea to name a few. Furthermore, traditional Chinese approaches also identify the ginger root as a potent remedy for inflammation (particularly in the joints as is experienced in arthritis).

⁵⁵ <http://imsear.hellis.org/bitstream/123456789/135234/1/ijbb2009v46n6p503.pdf>

⁵⁶ Gilani,A.H.,Jabeen,Q.,Khan,A.U.,andShah,A.J.(2008).Gut modulatory, Blood pressure lowering, diuretic and sedative activities of cardamom. J.Ethnopharmacol. 115,463–472.

⁵⁷ Gilani,A.H.,Jabeen,Q.,Khan,A.U.,andShah,A.J.(2008).Gut modulatory, Blood pressure lowering, diuretic and sedative activities of cardamom. J.Ethnopharmacol. 115,463–472.

There is some evidence to show that in addition to all the aforementioned properties, there is evidence supporting the fact that ginger has antihypertensive properties too.



Ginger works similarly to calcium channel blockers (a specific class of blood pressure medications). By blocking calcium signaling, ginger can induce vasodilation, which makes it easier for the heart to pump blood through the body.⁵⁸ Ginger also contains potent anti-inflammatory compounds called *gingerols* and *shogaols*. These compounds act to reduce inflammation in the body and are thus useful for reducing pain and increasing mobility in those with joint problems. In addition to gingerols and shogaols helping with joint pain and inflammation, they

⁵⁸ "Ginger Lowers Blood Pressure Through Blockade of Voltage-Dependent Calcium Channels." Journal of Cardiovascular Pharmacology. Jan. 2005;459(1):74-80.

also have properties that induce vasodilation, which helps to alleviate hypertension by lowering ones blood pressure.^{59 60 61}

In the literature, most research has been conducted on the effects of ginger extracts which are administered in therapeutic doses. Much of the results are dose dependent in nature meaning that the more ginger extract administered, the larger the effects. Although the research corpus reports results on ginger extracts, according to the attitude and approach to health that we advocate in this book, there is no necessity to procure these potentised forms of the ginger root to see lasting meaningful improvements in your health over time. However, excessive consumption of ginger can potentially be risky and is not to be carelessly recommended for pregnant women nor for people who are already on antihypertensive medication without proper consultation with an experienced healthcare professional who can assess the risks and benefits. Because of these caveats, we affirm the approach of modest increases of ginger in the diet by eating more meals that contain ginger; for most people, simply cooking delicious Asian style cuisine with modest amounts of ginger on a more regular basis would make it unlikely to ever experience adverse complications.^{62 63 64}

There is no doubt that increasing the ginger in your diet would decrease your blood pressure and gently modulate many other biological systems in a positive way. The other effect of increasing ginger in the diet is the vast number of utterly delicious and exotic recipes from the orient that require ginger to be in them for their unique and distinctive flavor. People living in the orient simply love this herb and often include it in desserts or sweets, although the western palate

⁵⁹ "Pharmacological studies on ginger. I. Pharmacological actions of pungent constituents, (6)-gingerol and (6)-shogaol." *Journal of Pharmacobiodynamics*.1984 Nove; 7(11):836-848.

⁶⁰ Ghayur MN, Gilani AH. Ginger lowers blood pressure through blockade of voltage-dependent calcium channels. *J Cardiovas Pharmac*. 2005;45:74–80.

⁶¹ <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3210006/>

⁶² University of Maryland Medical Center online.

⁶³ "Synergistic Effect of Ginger and Nifedipine on Human Platelet Aggregation: a Study in Hypertensive Patients and Normal Patients." *American Journal of Chinese Medicine*. 2006;34(4):545-51.

⁶⁴ Nicoll R, Henein MY. Ginger (*Zingiber officinale* Roscoe): A hot remedy for cardiovascular disease? *Int J Cardiol*. 2009;131:408–9.

may need some 'educating' in order to appreciate the startling and unusual use of this spice in this way. Among the list of commonly prepared meals that use ginger are stir-fries, noodle based meals, sweets(!) and even tea for an extremely warming, aromatic and refreshing experience. Simply, chop, grate or steep and watch your circulation, blood pressure and aches and pains melt in the warm glow of this friendly and exotic aromatic spice!

2 weird ingredients proven to regrow hair

Are you sick and tired of seeing your hair fall out in the shower, or having to cover over your bald patch every day?

Then you need to start eating [**THESE two ingredients**](#).

Just 14 days after adding these unusual ingredients to his daily meals, a 43 year old man from Ohio who was as bald as a golf ball, began to notice his hair 'regrowing'.

[**THIS breakthrough cure for hair loss**](#), has already helped 62,786 men and women to regrow thick, full and healthy hair in as little as a few weeks.

Turmeric



Turmeric is a potent source of a compound called curcumin. Curcumin is an extremely strong antioxidant which, when ingested, has a multitude of different medicinal properties which include anti-inflammatory properties, beneficial epigenetic modulation⁶⁵, blood cholesterol lowering actions and, importantly for our discussion, it inhibits blood clot formation. Essentially it is curcumin's antioxidant properties that enable it to prevent tissue damage and inflammation due to reactive oxygen species.⁶⁶

Since curcumin lowers blood lipid levels it helps to minimize the probability of arterial plaque formation. Lowering arterial plaque formation reduces the risk of atherosclerosis as well as reducing the chances of heart attack and stroke due to plaque rupturing. Reducing the clotting formation rate also directly helps to prevent heart attack and stroke. Furthermore, reduced arterial plaque formation helps to

⁶⁵ Reuter, S., Gupta, S.C., Park, B., Goel, A., and Aggarwal, B.B. (2011). Epigenetic changes induced by curcumin and other natural compounds. *Genes Nutr.* 6, 93–108. doi:10.1007/s12263-011-0222-1

⁶⁶ Chiu, J., Khan, Z.A., Farhangkhoei, H., and Chakrabarti, S. (2009). Curcumin prevents diabetes-associated abnormalities in the kidneys by inhibiting p300 and nuclear factor- κ B. *Nutrition* 25, 964–972. doi: 10.1016/j.nut.2008.12.007

prevent most of the damaging effects of increased arterial pressure on the endothelial lining of blood vessels. Turmeric, because of curcumin is an extremely powerful ally in the maintenance and mitigation of the deleterious effects of hypertension and heart disease.⁶⁷

Another important and relevant property of curcumin is that it acts as a vasodilator. A vasodilator is simply a compound which dilates vessels (blood vessels), so the fact that curcumin dilates blood vessels means that it can rapidly reduce blood pressure.

The main mechanism of action of curcumin is thought to lie in its ability to inhibit calcium transport across smooth muscle cell membranes. Calcium acts as a cellular messaging molecule which works to tell cells to contract. Since blood vessels are enervated with a thin layer of smooth muscle, contraction of that muscle works to constrict blood vessels in turn causing a concomitant elevation of blood pressure – inhibiting calcium transport would cause constricted vessels to relatively dilate, alleviating blood pressure.⁶⁸

Turmeric is a wonderful yellow color with a mild flavor. Typically it is used as a part of many different traditional Indian dishes and is the reason behind the color of the yellow rice so often served alongside curries.

Unfortunately, simply adding turmeric into your diet won't have too many major effects since curcumin has notoriously poor bio-availability. Mixing curcumin with oils can greatly improve its bioavailability, the healthiest of which would be coconut oil, olive oil and fish oils.

Supplemental forms of turmeric come with certain dangers, for example, diabetics need be wary since high doses of turmeric can significantly drop blood glucose levels which, if the diabetic is undergoing insulin therapy could cause dangerous hypoglycemia.

⁶⁷ Morimoto, T. , Sunagawa, Y. , Kawamura,T. , Takaya,T. , Wada, H. , Nagasawa, A. et al. (2008). The dietary compound curcumin inhibits p300 histone acetyl transferase activity and prevents heart failure in rats. *J Clin.Invest.* 118,868–878.doi:10.1172/jci33160

⁶⁸ “Hypotensive and endothelium-independent vasorelaxant effects of methanolic extract from *Curcuma longa* L. in rats.” *J Ethnopharmacol.* 2009 Jul 30;124(3):457-62. Epub 2009 May 27.

However, the approach we are advocating in this book is to simply increase your intake of turmeric by increasing the amounts you consume naturally in your weekly meals. Prudent, natural and harmonious use of each and every spice in this book should give great results, fantastic flavor, dietary variety and slow, steady, cumulative beneficial medicinal effects.

Basil



Basil is a phenomenally potent herbal spice familiar to almost anyone in the west. What makes this spice 'exotic' from our perspective is the realization that Basil leaves and the extracts one can create from Basil leaves have many potent medicinal uses. Studies have found that extracts from basil leaves temporarily lower blood pressure.⁶⁹ It has been reported that these crude extracts of the basil plant can induce a fall in overall blood pressure (diastolic, systolic and mean blood pressure) with the effects lasting roughly two minutes – hence the

⁶⁹ <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3210006/>

effects are ‘temporary’. The main compound in basil thought to be responsible for this effect is called eugenol, which is known to block calcium channel transport and thus induces vasodilation which is responsible for the decrease in blood pressure.⁷⁰

One of the great things about basil is that it can easily be made into a fragrant aromatic tea that has a strong taste – although basil tea may sound unusual, it is actually one of the best ways to ingest this herbal spice in a potent and refreshing way. The other great thing about basil is that many people feel that it compliments seafood dishes extremely well, and this is fantastic news since seafood is extremely rich in omega oils known to help alleviate stress, aid brain function and help to lower blood pressure – thus basil, when added to seafood has a complimentary ameliorating effect on elevated blood pressure. Basil preparations in Italian dishes such as basil pesto or simply as leafy additions to your common garden variety salads are common ways to eat this delicious herbal spice, but truly, the exotic way to have this herb is as a tea which should bring a sense of calm during its consumption and for several hours afterward.

⁷⁰ Azhar I, Aftab K, Usmanhane K. Naturally occurring calcium channel blockers. *Hamdard Medicus*. 1995;38:5-16

Celery Seeds



Celery seed makes it into our list because it is exotic in the sense of being uncommon. Most westerners are familiar with the whole celery plant, and as such would not view it as a spice. However, the seeds of the celery plant can be used as flavor-neutral additions to many meals and has been found to be effective as a treatment for high blood pressure with significant reductions in both systolic and diastolic blood pressure being recorded in the literature.⁷¹

Though long used in traditional Chinese medicine as a remedy for hypertension, finally we have some peer reviewed investigations that have turned up evidence to corroborate the Chinese assertion that it is

⁷¹ Gharooni M, Sarkarati AR. Application of *Apium graveolens* in treatment of hypertension. Tehran Univ Med J. 2000;58:67-9.

effective for this particular use. The seeds themselves lower blood pressure, but the benefits of the whole celery plant should not go underestimated for indeed this wonder herb has many beneficial qualities. The whole celery plant can be freshly juiced and mixed with vinegar to help relieve dizziness, headaches and shoulder pain linked to hypertension.⁷²

Evidence also exists for the juiced celery plant's beneficial in the treatment of hypertension associated with both pregnancy and female menopause (during the climacteric).⁷³The key mechanism of action thought to be the main cause of its antihypertensive properties is the fact that it acts as a diuretic, however there is some evidence linking the activity of compounds derived from celery to liver function and specific hypertensive pathways.⁷⁴⁷⁵

Concluding Remarks

It is the author's sincere wish that all the readers of this book go out and try cooking something new and fresh for the pure delight of joyous eating. Use the spices listed here as a guide to new recipes and new experiences – you can also be assured that at every step of the way, increasing the number of blood pressure lowering spices in your diet will over the long term have a cumulative and modulating effect.

At no point in this work has the author recommended taking medicinal potency supplement style doses of these spices to treat your hypertension. In every case a gentle approach, without effort, natural and simple, is just to add them to your food as you would to enjoy the foods' flavor – over hundreds and hundreds of meals, you will have moderated your blood pressure perfectly.

⁷² Farnworth NR, Akerele O, Bingel AS, Soejarto DD, Guo ZG. Medicinal plants in therapy. Bull WHO. 1985;3:965–81.

⁷³ Ibid.

⁷⁴ Ibid

⁷⁵ Somanadhan B, Varughese G, Palpu P, Sreedharan R, Gudiksen L, Smitt UW, et al. An ethnopharmacological survey for potential angiotensin converting enzyme inhibitors from Indian medicinal plants. J Ethnopharmacol. 1999;65:103–12.

If you do have hypertension or a serious medical condition or allergies, then make sure that you consult with your favorite healthcare professional before taking large doses of anything. This book is not intended to give medical advice, nor is it intended as a treatment program to cure hypertension in its own right. This book is merely a pointer to the kinds of little things one could do to enjoy food a little bit more whilst also taking note of your body's particular needs. Use your discriminating wisdom and be smart, safe and healthy.

All the best :D

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