

SHIATSU AND HIGH BLOOD PRESSURE



"The focus of treating high blood pressure with shiatsu is the kind of effectiveness that is received from a treatment. Our goal should be to create homeostasis with the autonomic nervous system, to make it balanced. Particularly, the autonomic nervous system affects the circulatory system so shiatsu creates a better flow."

Kensen Saito, Shiatsu Academy of Tokyo

THE SHIATSU POINTS AT A GLANCE • ALL VIEWS

Anterior View • Lateral View • Posterior View



There are about 700 pressure points in the body. The purpose of shiatsu is to stimulate the body's natural powers of recuperation by: relaxing the nervous system; improving the circulatory system; and correcting the structural imbalance of the body.

SHIATSU AND HIGH BLOOD PRESSURE

In today's fast paced society, a condition called Hypertension or what is commonly known as High Blood Pressure (HBP), is on the rise. High blood pressure results from a variety of factors, some that are controllable and some that are not. Though all organs will be eventually affected by high blood pressure, these organs are primarily involved: the heart, blood vessels, kidneys and brain.

High blood pressure results from:

- *Elevated blood volume from elevated levels of sodium or - reduced blood vessel diameter (from narrowing of arteries due to fatty buildup - atherosclerosis, or calcium buildup - arteriosclerosis)*
- *Increased strength of heart beat because of elevated renin levels from the kidneys or epinephrine levels from the adrenal medulla (usually a result of stress)*
- *Narrowing of arteries, reducing blood vessel volume*

Kensen Saito, Director and owner of the Shiatsu Academy of Tokyo in Toronto ON Canada, empathizes “the North American lifestyle is more prone to create high blood pressure in people. It is related to the fast pace at which we lead our lives leading to stress, as well as poor diet and a lack of exercise.”

When treating high blood pressure, the focus for any practitioner is what kind of effectiveness is achieved. The basic whole body shiatsu treatment is done with special care and it is not advisable to press too hard on the points where the arteries pass through. “Our goal is to create homeostasis with the autonomic nervous system and to make it more

balanced,” continued Saito. “Particularly, the autonomic nervous system affects the circulatory system that creates better flow. We have to pay special attention to where the major arteries run under the basic pressure points.”

The major arteries running under the basic shiatsu points are where the pulse can be felt. “For instance,” Saito explains “areas where the arteries pass through are: the anterior cervical region for the common carotid artery; the medial antebraichial region for the radial artery; the armpit for the auxiliary artery; the inguinal region for the femoral artery; the ankle for the posterior tibial artery and the temporal region for the superficial temporal artery. These particular areas where we sense the artery or pulse are where the important shiatsu points are located. We have to be careful when we see a high blood pressure client because of the hardening of their arteries. In other words, since arteriosclerosis is one of the causes of high blood pressure, the therapist has to apply gentle pressure, especially on the artery. The application of pressure should be relatively soft enough at the beginning.” However, in a shiatsu treatment, it is not necessary that the practitioner apply strong pressure to tight areas all the time. “With high blood pressure,” continues Saito “the arteries are already rigid. Touch affects the autonomic nervous system. We expect an autonomic response first which leads to the client being relaxed. This tension in someone with high blood pressure means the sympathetic nerves are really hyper so a nice, soft touch calms down the hyper state. When I press the first shiatsu point of the anterior cervical



Kensen Saito of the Shiatsu Academy of Tokyo applies one thumb application on the Anterior Cervical Region of the client.



Saito applies two thumbs application on the client's wrist where there are three major shiatsu points.



Saito applies gentle palm pressure on the client's abdomen in a clockwise circular motion preceding pressure point application.

region, I expect the baroreceptor reflex. We have to positively affect the parasympathetic nervous system. This will make the autonomic nervous system balanced.”

At the Shiatsu Academy of Tokyo, Saito offers once a month workshops for his patients. They get free advice along with tips that they should do at home so at least they have the knowledge of what they should do to keep this condition in check. Between treatments, it is advised that they do deep breathing exercises, particularly deep breathing exercises when exhaling. “When I teach them deep and longer breathing, they have to breathe out as much as possible. Inhaling comes naturally, so breathing out deeply is important. This way, they can control their autonomic nervous system. This is very important: we can control this condition through breathing. The system affected and where the solution will be, is in the autonomic nervous system. We have to change this state.”

In addition to breathing, self-shiatsu can be administered at home. Saito explains that in particular, abdominal self-shiatsu can be done along with deep breathing. “Use the 9 points with the palm application and when you press, and breathe out. Apply pressure slowly and gently about 5 - 7 seconds per point while breathing. Gently press and then breathe out.”

Along with breathing being a key factor in maintaining a healthy blood pressure that alleviates

ABDOMEN • APPLY PALM PRESSURE CLOCKWISE TO 9 POINTS FOR SELF-SHIATSU



tension in the body, so is altering one's lifestyle. The reduction and eventual elimination of these three stimulants will improve the condition of high blood pressure: smoking, alcohol and caffeine. Saito cautions practitioners make the suggestion to their clients that a reduction of these three substances to moderate amounts is necessary to relieve high blood pressure, otherwise "sudden change can cause too quick a shift which can be a shock to the body. When they reduce these substances moderately, they feel as if they can achieve their goal."

David Sugarman, who has Bachelor of Science and Education degrees from University of Toronto, is senior Researcher at the Ontario Science Centre in Toronto. He has been teaching Anatomy, Physiology, Pathology and Environmental Science at the Shiatsu Academy of Tokyo in Toronto for ten years. Sugarman explains, "There seems to be no difference in hypertension prevalence between men and women, but there is between blacks and the rest of the population (approximately 37% of blacks in the U.S. have high blood pressure which is twice the rate of the white population). A larger percentage of black hypertensives are sodium sensitive, so reducing sodium would be an easy first step in lowering blood pressure."

With Sugarman's knowledge of high blood pressure, a condition that is preventable in his opinion, he continues: "The tendency to develop high blood pressure in particular individuals probably never goes away, but it can be controlled by any of these combinations: relaxation techniques like shiatsu; dietary modification and/or lifestyle changes, like exercise and weight loss; medication like diuretics to lower blood volume; medicine to block formation of angiotensin II; beta blockers to inhibit rennin secretion and reduce heart rate and force of contrac-

tion; and vasodilators to enlarge blood vessels and thereby lower blood pressure if necessary. A combination of these may be needed." Sugarman is also in agreement with Saito that specific dietary and lifestyle modifications are necessary such as: reduced sodium, fat, caffeine, alcohol and maintaining dietary intake of potassium, calcium and magnesium along with the cessation of smoking.

At the Shiatsu Academy of Tokyo's professional clinic, the particular age group with high blood pressure is over 40 years old. It is not usually seen in youth. As well, the percentage of men to women with high blood pressure who come for treatments is 50/50.

One of Saito's regular clients with high blood pressure who has greatly benefited from shiatsu is April Cornell.

Cornell was first diagnosed with high blood pressure in May, 2004 during an annual physical. After her physician diagnosed her, the only treatment that was presented to her was a conventional solution: salt reduction and medication. It's uncertain what exactly brought on the high blood pressure, but it was most likely a combination of factors. Cornell explains that "menopause, heredity as [her] father had high blood pressure and stress" may have played a role. "I work in the social services sector with an increasing work load over the past several years. I also have allergies, which is another kind of stress with increasing reactions to environmental changes such as pollution levels rising in the city as well as an escalating response to seasonal allergies. Also, I am a smoker and overweight," she explains.

Although menopause may have played a role, it is most likely not the initial cause of high blood pressure in women. "There is a close link between

NEGATIVE EFFECTS OF HIGH BLOOD PRESSURE ON THE BODY

DAMAGES LINING OF BLOOD VESSELS

High blood pressure damages the lining of blood vessels, causing thickening of the middle layer of artery walls, the tunica media, which accelerates the development of atherosclerosis in all blood vessels, including those that feed the heart (causing coronary artery disease). This increases blood pressure by making blood vessels less elastic, which in turn damages blood vessel walls further - a cycle.

INCREASES AFTERLOAD

High blood pressure increases 'afterload' (the pressure that must be exceeded if blood is to be ejected from the ventricles) in the heart, which means the ventricles of the heart have to work harder to pump out blood. This causes enlargement of the ventricles, particularly the left ventricle which pumps oxygenated blood throughout the body. If this cannot compensate for the increased afterload, the left ventricle becomes weakened.

NARROWS KIDNEY ARTERIES

Kidney arteries can be damaged by prolonged hypertension, causing them to narrow, which causes the kidneys to secrete more rennin (to compensate for what they detect is reduced blood flow), which causes a further increase in blood pressure - a cycle.

HEMORRHAGIC STROKE

Arteries in the brain may rupture from the increased pressure, (a hemorrhagic stroke) or arteries leading to the brain may become blocked as a result of atherosclerosis, causing a stroke.

STRESS PLAYS A ROLE IN PRIMARY HYPERTENSION

CAUSES

There are a number of causes attributed to high blood pressure. Most cases of high blood pressure cannot be credited to a particular cause. This is known as primary hypertension (persistently elevated blood pressure). These are the ones that may benefit the most from Shiatsu and other relaxation techniques. Hypertension, another name for high blood pressure, is divided into two categories: primary and secondary hypertension.

STRESS HAS AN EFFECT ON THE BODY

Stress has a number of effects on the body. The body is basically preparing for danger, even though no real danger exists (i.e. getting angry, or stressing out over a work deadline are certainly upsetting, but aren't really life-and-death situations, but the mind and body respond as if they are). The heart beats faster and harder, blood vessels to the heart, lungs and skeletal muscles dilate, but blood vessels to the kidneys and digestive system constrict. This elevates blood pressure. The elevated blood pressure can damage the delicate lining of the inside of blood vessels, which can help calcium and fatty deposits to build up in the blood vessels (chiefly arteries). Blood sugar levels rise to supply the muscles and heart with energy, but elevated blood sugar over extended periods can age blood vessels (this happens in diabetics). Blood fat levels rise, again to supply energy, but over time this can contribute to fatty buildup in the arteries or atherosclerosis. If the stress is something that can be alleviated by muscle use (running away from danger, exercise) then the elevated blood sugar and fat will be lowered as they are used. If the person is just being upset, then there is nothing to lower these levels.

OTHER POSSIBLE CAUSES OF PRIMARY HYPERTENSION

AGEING OF ARTERIES

Ageing of arteries is another possible cause of high blood pressure. As people age, blood vessels become less elastic. Therefore, they don't stretch as much with each heart beat, and blood pressure rises. This in turn damages the artery lining more, causing more fatty buildup in the arteries. This process inevitably can be a vicious cycle.

DIETARY SODIUM INTAKE

In some people, dietary sodium intake can increase blood pressure more than in most people. The body responds to the excess salt by having the kidneys absorb more water, thereby increasing blood volume and blood pressure.

EASIEST WAYS TO AVOID HIGH BLOOD PRESSURE

- **Stress Reduction** - Options: shiatsu and other relaxation techniques; meditation; biofeedback; avoidance of stressful situations or modifying your response to them.
- **Reduce Sodium Intake** - Not adding extra salt to your food and observing hidden salt in most processed food.
- **Weight Loss** - The heart works harder to pump blood to extra fatty tissue (since fat cells are living). Fatty tissue is metabolically active, with fat being released and new fat stored. Every kilogram of fat has 1,000 extra kilometres of blood vessels. Loss of fat means loss of extra work.
- **Regular Exercise** - Exercise reduces blood pressure. It can be a daily walk of 20 - 30 minutes which seems to be enough to help increase cardiovascular health, digestive system functioning, and lowers cancer risk.
- **Lower Caffeine Intake** - The caffeine in coffee, tea and some soft drinks increases heart rate and strength of contraction, and therefore blood pressure.

SECONDARY HYPERTENSION ACCOUNTS FOR 5 - 10% OF CASES

OBSTRUCTION OF BLOOD FLOW

Obstruction of blood flow to the kidneys or damage to the kidneys. Excessive amounts of renin from the kidneys (involved in blood pressure regulation) are released into the blood stream, which causes a rise in angiotensin II (another substance the body uses to help regulate blood pressure), and blood vessels throughout the body constrict. This raises blood pressure.

ADRENAL CORTEX DISEASE

Adrenal cortex disease (such as a tumor). This causes hypersecretion of aldosterone, which causes the kidneys to reabsorb too much salt and water, which increases blood volume and as a result blood pressure.

ADRENAL MEDULLA TUMOR

Adrenal medulla tumor. This results in a hypersecretion of stress hormones - epinephrine (adrenaline) and norepinephrine (noradrenaline). Heart rate and force of contraction increase, and blood vessels throughout most of the body (except heart, lungs, brain and skeletal muscles) constrict, raising blood pressure.

PREGNANCY-INDUCED HYPERTENSION

Pregnancy-induced hypertension affects about 10-15% of pregnant women, usually after the 20th week of pregnancy. Preeclampsia, that may be related to an allergic reaction to the fetus or an autoimmune reaction in the mother.



the nervous system and hormones where menopause is concerned,” clarifies Saito “but menopause doesn’t necessarily lead to high blood pressure. One of the symptoms can be high blood pressure, but it is not always the case.”

High blood pressure isn’t necessarily hereditary either. “In those individuals who respond to dietary salt or fat, an increase in narrowing of the arteries, or who handle psychological stress the way other members of their families do, then it could be said that there is a hereditary component to their high blood pressure,” states Sugarman and he insists that “the tendency to develop high blood pressure might not go away, but it can be controlled on a permanent basis.”

Cornell first became aware of shiatsu in the late 70’s through a shiatsu clinic in Toronto. After seeing a homeopathic doctor a few times, she recommended “acupressure.” Since she had some familiarity with shiatsu, she decided to explore it further. Though she had gone to this homeopathic doctor several times, she decided not to continue. In conjunction with this, she utilized radionics but she had done so for several years so it was not new since the diagnosis.

Cornell explains, “In May 2004, when high blood pressure was first diagnosed, my blood pressure reading was 176/112. My family doctor was still adjusting medication such as increasing dosage. Since April and May, I was experiencing adrenaline rushes several times a day. I think this was associated with environmental allergies and the stress of high blood pressure so I felt stressed most of the time.” Other symptoms she experienced were: increased physical tension; frequent headaches; and several nose bleeds in the 2 months prior to being diagnosed which she originally thought were allergy related. The diagnosis

prompted her to investigate it through the Internet. Since the diagnosis, she has been diligent in taking supplements and maintaining a healthier diet.

When she started receiving shiatsu treatments in August 2004, her blood pressure was still high, though lower than it was in May. She wasn’t aware of any significant changes after the first shiatsu treatment but she was not expecting this to happen overnight. However, she was aware of more overall subtle changes as feeling less anxious and more balanced. “By the end of September, the family doctor had determined that I was on the correct medication and dosage as the blood pressure was staying under 130/80 for most of the readings on the home monitor. I continued to receive shiatsu treatments every other week. In January, I experienced several days of low readings (108/62) so one of the medications was reduced. Medication dosages were reduced again in September 2005. After the reduction, the blood pressure slightly increased for a week and a half, but is now down again and is consistently under 130/80,” she explains.

Other changes she noticed after the tenth shiatsu treatment were: relief from sinus congestion and no longer mouth breathing due to this congestion. Her overall health has improved and the medication dosages have been reduced twice in the last year. As well, Cornell does not respond in the same way to stressful



situations and experiences “fewer” adrenaline rushes. When the adrenaline rushes do occur, primarily in the summer, it does not cycle into a panic attack. She is still receiving treatments every two weeks and has no plans to stop as she hopes to “be off medication in the future.” Though she sees her doctor every three months, he has not commented on the relationship between the lowering of medication and receiving shiatsu treatments.

The question of whether high blood pressure goes away without medication is a difficult one to answer for various reasons. Once people are on medication for high blood pressure, it is difficult to break the cycle. It is left up to the doctor to reduce the patient’s medication, so it is very important that the patient is monitored. Doctors might not know that the patient has had shiatsu treatments so they might think that it is solely the medication that is responsible for the positive reading, not in conjunction with the shiatsu treatments. Saito explains, “It is important that the doctors are aware shiatsu is playing a big role in controlling this condition and reducing the patient’s high blood pressure. Instead, they think only the medication is working. Over the last few decades, medical practitioners were not trained to think about complementary methods or drugless solutions, where people can live without medication to control a specific condition like high blood pressure. Our goal is to make people live without medication. But the doctor’s success is that their condition is under control with medication, and that’s it. So the solution of the shiatsu therapist and the doctors are different. Their approaches to alleviating this condition reflect their different modalities. For the patient, their goal is like the shiatsu therapist, to live without medication but for some, they don’t care and medication is fine for them.”

This dilemma would be answered if research studies were conducted with shiatsu by studying the positive effects after administering treatments on a regular basis. The problem is that any small operation is not government funded. A Research Foundation on alternative therapies used for controlling certain conditions would help enormously. “We need help keeping all the data. One person cannot do it alone. Private clinics can’t do much without funding specific help to do these studies. If they need data and statistics, they have to help. The best data is the positive response in clients. The question is will they embrace this therapy even if they have statistical results that it can indeed change a condition,” explains Saito.

Other alternatives in alleviating high blood pressure are Tai Chi, yoga, and meditation. These help because it slows our rhythms down from the frenzied, artificial pace imposed by society and in turn, puts us in tune with the more natural, slower rhythm of nature. “Alternative treatments like yoga, tai chi, shiatsu, and massage this is the Eastern way. Also, the North American way is good where diet and exercise is emphasized... Twenty-five years ago, there was no such thing as massage or a spa as a viable treatment for anything. Now, people and the medical profession are open to exploring other avenues to treat specific conditions,” clarifies Saito. “It’s all good, meditation, change of diet and so on, but not that many people have a strong will. Those who have a strong will can overcome whatever ailment they have but everyday people have more difficulty.”

As someone who has studied the sciences and teaches it to shiatsu practitioners, Sugarman agrees that high blood pressure can be relieved with alternative modalities such as shiatsu. “I believe that shiatsu can help to relieve hypertension that is not caused by

a specific disease by reducing stress and its numerous effects. This means that most cases of high blood pressure can benefit from shiatsu treatments.”

As someone who is receiving shiatsu treatments for high blood pressure along with taking medication, April Cornell couldn't agree more as her condition is definitely “better managed.” Though her insurance doesn't cover the shiatsu treatments, it could be covered up to \$500 per year if her doctor prescribed the treatments and she will “pursue” the request this year with her family doctor. Also, it is important that practitioners be properly trained. The standards set at the Shiatsu Academy of Tokyo are high, as a friend highly recommended the school and its graduates.

Along with the physical relief shiatsu brought to Cornell's specific condition, it really made a difference in her overall mental and emotional state. “I feel more balanced, generally calmer and less reactive to potentially negative situations. I am also aware of the “cleansing” effect from shiatsu. Frequently, after several months of a shiatsu treatment, I would have a “liverish” feeling which would start the next day and last several hours but this does not occur to the same extent anymore,” she explains. Though she still requires medication, her goal is to get “completely off” the drugs.

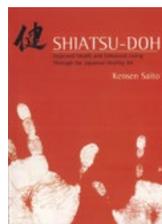
Cornell has already recommended shiatsu to a couple of people. One friend was receiving treatments several times a week for a problem with her neck and pain in her shoulder. She is now receiving treatments every one to two weeks for high blood pressure, asthma and chronic sinus problems. Also, this friend's husband is receiving treatments 2-3 times a week for Parkinson's disease and he feels it has made a difference.

In a world of high tech, fast food, and stiff competition, it is difficult for the human body, whose rhythm is based on nature, to adapt to the somewhat



artificial process and frenzied pace we have created to survive. It is the “fight or flight syndrome” that creates shallow breathing which leads to chronic tension, thereby affecting blood pressure. “We must slow down,” insists Saito. “The problem is, since life comes from nature, we are part of it and so we cannot change our biological rhythm to what society has developed. Society's speed has increased so fast. We cannot adapt as well to an artificial speed that is not nature's speed.” This being said, shiatsu is one solution that can contribute to a healthier lifestyle.

Grace Visconti is a Registered Graphic Designer (Ontario) freelance writer and a Shiatsupractor® who works at the Holy Cross Centre in Calgary, AB Canada. She graduated from the Shiatsu Academy of Tokyo in 1992. This publication is a collaboration with her sensei, Kensen Saito, owner and Director of the Shiatsu Academy of Tokyo in Toronto, ON Canada. A special thank you is extended to David Sugarman and his contribution to this educational booklet. © July 2006



The book Shiatsu-Doh by Kensen Saito, which includes information on shiatsu, is an autobiographical account of Saito's exploration of shiatsu starting with his life in Japan and his subsequent move to Canada. It is available at the Shiatsu Academy of Tokyo.

TORONTO, ONTARIO

Where can I receive shiatsu treatments?

Professional Shiatsu Clinic - Shiatsu therapy is offered by Shiatsupractors at two locations in Toronto.

Shiatsu Masters (Shiatsu Dohjoh)

Carrot Common Mall
206 - 320 Danforth Avenue, Toronto, ON M4K 1N8
(near Chester subway station) 2nd Floor
Tel: 416-466-8780

Shiatsu Masters

Standard Life Centre
121 King Street West (at York Street)
Concourse Level, Toronto, ON M5N 3T9
Tel: 416-366-8780

Student Clinic

The Shiatsu Academy offers student treatments in the student clinic at:

Shiatsu Academy of Tokyo

206 - 320 Danforth Avenue, Toronto, ON M4K 1N8
Email: sait131@rogers.com
Website: www.kensensaito.com
Tel: 416-466-8780
Fax: 416-466-8719

BRIEF HISTORY OF SHIATSU MASTERS

Shiatsu Masters refer to graduates who have been fully and successfully trained in the technique outlined by the founder of shiatsu, Tokujiro Namikoshi. This traditional shiatsu technique is a process that involves a specific procedure where the application of shiatsu is given and where the clients benefit from the thoroughness of its procedure. The name "Shiatsu Masters" was initially created by the Shiatsu Academy of Tokyo in Toronto, ON Canada to identify the students who have graduated from the private school.

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A SPECIAL THANK YOU

A special Thank You is extended to David Sugarman, and the Shiatsu Academy of Toyko for sponsoring this article and the series of articles that will be released in the near future. For more information on shiatsu, visit this website that also includes information on national news across the country featuring Toronto ON, Calgary AB and Vancouver BC:

<http://www.eagleheartdynamic.com>

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Tokujiro Namikoshi

Toru Namikoshi

This series of articles is a collaboration with the Shiatsu Academy of Tokyo and is dedicated to: the founder of shiatsu, Tokujiro Namikoshi; his son Toru Namikoshi who dedicated his life educating people about shiatsu worldwide; and to Kensen Saito , Director, teacher and owner of the Shiatsu Academy of Tokyo in Toronto, who brought his knowledge of shiatsu to Canada years ago.