



PREVENTIVE AND THERAPEUTIC EFFECT OF YOGASANA AND PRANAYAMA IN THE PATIENT OF HYPERTENSION: AN OVERVIEW

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<https://doi.org/10.46607/iamj1611092023>

(Published Online: September 2023)

Open Access

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Article Received: 08/08/2023 - Peer Reviewed: 25/08/2023 - Accepted for Publication: 10/09/2023.



ABSTRACT

Lifestyle diseases share risk factors similar to prolonged exposure to three modifiable lifestyle behaviors -- smoking, unhealthy diet, and physical inactivity -- and result in the development of chronic diseases, specifically heart disease, stroke, diabetes, obesity, metabolic syndrome, chronic obstructive pulmonary disease, and some types of cancer. Hypertension is one of them. It is defined as the force exerted by circulating blood against the walls of the body's arteries, the major blood vessels in the body. It is called a "silent killer". Most people with hypertension are unaware of the problem because it may have no warning signs or symptoms. Uncontrolled high blood pressure can lead to disability or even a deadly heart attack or stroke. Treatment and lifestyle changes can help in reducing Hypertension. Yoga can be preliminarily recommended as an effective intervention for reducing blood pressure. Yoga improves flexibility, reduces stress levels, and causes strengthening of muscles. Certain asanas like *Bhujangasana*, *Setubandhasana*, *Ardhachakrasana*, *Uttanasana*, *Padottanasana*, *Ardhachandrasana*, *Tadasana*, *Shalabhasana*, and *Shavasana* are found beneficial in Hypertension. *Shavasana* was mostly used for relaxation or as the starting pose for *asanas*.

Keywords: Hypertension, Yoga, lifestyle disorder, *Asanas*

INTRODUCTION

High blood pressure is the most common chronic medical problem commonly visits to primary health care providers affecting approximately 26% of the adult population¹. Blood Pressure is commonly expressed as the ratio of the systolic Blood Pressure (that is, the pressure that the blood exerts on the arterial walls when the heart contracts) and the diastolic Blood Pressure (the pressure when the heart relaxes). High blood pressure, also called hypertension, is blood pressure that is higher than normal. Over 76 million US adults suffer from hypertension as shown by current studies². Uncontrolled hypertension is thought to be responsible for 62% of cerebrovascular disease and 49% of ischemic heart disease³. Yoga is a spiritual path that may reduce blood pressure (BP)

through reducing stress, increasing parasympathetic activation, and altering baroreceptor sensitivity⁴. The Framingham heart study (FRS) has found the epidemiology for developing cardiovascular diseases and has identified elevated cholesterol levels and blood pressures as the important predisposing factors⁵. Elevated stress levels have also been correlated with a rise in blood pressure⁶. Yoga therapy is found beneficial in hypertension by reducing stress level also provide flexibility and strength to the muscles. Yoga increases mental and physical energy, a boost in alertness and enthusiasm, and fewer negative feelings go after getting into a routine in practicing yoga.

DIAGNOSTIC CRITERIA OF HIGH BLOOD PRESSURE⁷:- (Table 1)

Category	Systolic Pressure (mmHg)	Diastolic Pressure (mmHg)
1. Normal	<120	<80
2. Elevated	120-129	<80
3. Stage 1 Hypertension	130-139	80-89
4. Stage 2 Hypertension	Greater than or equal to 140	Greater than or equal to 90

ROLE OF YOGA:-

- Attainment of perfect equilibrium and harmony.
- Promotes self-healing.
- Remove negative blocks from the mind and toxins from the body.
- Enhance personal power.
- Increases self-awareness.
- Helps with attention, focus and concentration.
- Reduces Stress and tension in Physical body by activating the parasympathetic nervous system.

YOGA POSES TO BE DONE IN HYPERTENSION:

1. Sukhasana

It is a popular yoga asana done by sitting in a cross-legged position on the floor with the back and neck straight. It gives relief from high blood pressure by promoting a peaceful mind and reducing stress.

2. Shavasana:

Lying down on the ground in the supine position like a dead body is *Savasana*. It relieves a soothing effect on the mind and relaxes the body completely, reduces stress and thus helps in controlling high blood pressure.

3. Baddhakonasana:-

Baddhakonasana or the butterfly pose is excellent *yoga asana* to combat high BP. The *asana* involves flapping the hips like the wings of a butterfly which can stimulate cardiovascular activity. Additionally, this *asana* improves blood circulation, relieves stress and anxiety.

4. Sethu Bandha Sarvangasana:

Sethu Bandha Sarvangasana or the Bridge Pose is a good Yoga pose to lower blood pressure. It involves lifting up the pelvis and the spinal column while keeping the head and shoulders rested on the ground. The result is a bridge like pose which opens up chest and increases breathing capacity. This asana also re-

lieves feelings of fatigue, anxiety, and depression, which can control the heartbeat rate and reduce hypertension.

5. Bhujangasana:-

Bhujangasana or the Cobra pose is a therapeutic asana to lower high blood pressure levels. The back bending pose stretches the entire spinal column and opens up the thoracic area for better oxygen intake. It can increase blood flow to the upper part of the body and relieve stress. By regulating heartbeat, the *asana* can naturally control the blood pressure readings.

6. Sukhasana:-

Sukhasana or the Easy pose can quickly control anxiety issues to lower blood pressure levels. The asana involves sitting in an easy seat pose and focusing on slow breathing. When done in the right way, the asana can fill your body and mind with calmness and send you into a beautiful meditative stage.

7. Paschimottasana:-

Paschimottasana or the Seated Forward Bend is a good stress relieving asana to cure hypertension naturally. It alleviates the feelings of anxiety and fatigue to control a 'racing' heart and bring down the BP levels. Additionally, the asana can offer relief from headache and insomnia to improve the condition.

DISCUSSION

High blood pressure increases the risk of heart attack, stroke and other serious health problems and is the major cause of morbidities now a days. It is called 'Silent Killer' and its incidences are very high. By Lifestyle modification, healthy diet and yogic practices it can be controlled at some point. Yoga works by promoting restoration of physiologic setpoints to normal after derangements secondary to disease or injury, promote homeostatic negative feedback loops over non homeostatic positive feedback loops in molecular and cellular interactions, and quench abnormal "noise" in cellular and molecular signaling networks arising from environmental or internal stress-

es⁸. Yoga increases blood circulation, reduces anxiety and thus helps in reducing hypertension.

CONCLUSION

Hypertension is a serious chronic illness where risk of complications is very high and is the leading cause of death now a days. Many Ayurvedic and Modern modalities are there to treat this disease. But patients fade up from regular intake of medicines for a long time. Yoga not only improves blood pressure regulation but also relieves patients from stress and anxiety and may lower the quantity of medicines taken regularly for managing high blood sugar.

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Source of Support: Nil

Conflict of Interest: None Declared

How to cite this URL: Jyoti Kaushik et al: Preventive and therapeutic effect of yogasana and pranayama in the patient of hypertension: an overview. *International Ayurvedic Medical Journal* {online} 2023 {cited September 2023} Available from:

http://www.iamj.in/posts/images/upload/2273_2275.pdf