

Hypertension

High Blood Pressure: The silent killer

What is high BP? In general terms, we all know what is high Blood Pressure, especially those who are affected. High Blood Pressure is a condition in which the blood circulates through the arteries with excess pressure than required. This condition is also known as hypertension. Depending upon our routine physical and mental activities, the BP keeps on rising and lowering continuously. 120/80 mmHg blood pressure is considered ideal among the adults. When blood pressure stays high in continuation, greater than or equal to 140/90 mmHg, it is certainly high blood pressure and needs to be brought under control. High blood pressure increases the risk for heart disease and stroke.

High blood pressure is more common:

- a) among patients with family histories of high blood pressure
- b) among the persons of over 35 years of age
- c) among women on oral contraceptives
- d) In males (in general)

However, the cause is still unknown in majority of the high BP cases. In fact, one can have high blood pressure for years without knowing it. That's why it's the "silent killer".



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Following factors that may lead to high blood pressure include:

- Kidney abnormality & other related problems
- A structural abnormality of the aorta
- Narrowing of certain arteries
- obesity / overweight
- High sodium diet
- Less body exertion / Exercising
- Consumption of alcohol
- Disorder of adrenal glands
- Sleep disorders and others

What is the ideal way to measure blood pressure :

- The patient should be seated/lying.
- Apply the deflated cuff but allow the patients 3-4 mins to relax before inflating the cuff.
- Record BP to nearest 2 mmHg. NEVER ROUND TO NEAREST 5 OR EVEN 10 mmHG! Higher inflation is necessary in the cases with higher side of BP.
- Make 2 or preferably 3 BP measurements at each visit.

- In mild and older hypertensives with isolated systolic hypertension (and in the absence of end-organ damage) take baseline BP recordings over a 3-6 month period.
- In severe hypertensives (or where end-organ damage is present) take BP measurements more often (e.g. weekly for 1 month).
- Standing BP measurements are important for elderly and diabetic hypertensives where orthostatic hypotension is a common problem.
- Blood pressure may vary in standing, sitting or lying positions. It may also vary with different apparatuses viz. mercurial, aneroid or electronic, even with different cuffs, it may happen.

Let us understand how does high blood pressure develop?

The heart pumps blood through the body's arteries. The large arteries that leave the heart taper into smaller arteries called arterioles. The arterioles then taper into smaller vessels called capillaries, which supply oxygen and nutrients to all other organs of our body. The blood then returns to our heart through the veins. Certain nerve impulses cause your arteries to dilate (become larger) or contract (become smaller). It is here simple to understand, if these vessels are wide open, blood can flow through easily.

If they're narrow, it's harder for the blood to flow through, and the pressure inside with naturally increases and may result into high blood pressure may occur. Under such conditions, our heart becomes strained and blood vessels may become damaged. Changes in the vessels that supply blood to our kidneys and brain may affect these organs too. No doubt, our heart, brain and kidneys are constructed in such a way that they can handle increased pressure for a long time and our lives are thus long without any symptoms or ill effects. Nevertheless, that doesn't mean it's not causing damage.

High blood pressure is a major risk factor for cardiovascular diseases like stroke, heart attack, heart failure and even kidney failure.

How high B.P. affects our body?

High blood pressure adds to the workload of our heart and arteries. Our heart must pump harder, and the arteries carry blood that's moving under greater pressure. If high blood pressure continues for a long time, our heart and arteries may not work as well as they should. Other body organs may also be affected. There is an increased risk of stroke, congestive heart failure, kidney failure and heart attack. When high blood pressure exists with obesity, smoking, high blood cholesterol or diabetes, the risk of heart attack or stroke increases several times.

Prevention :

Everybody regardless of age, colour, creed, race, sex, or heredity can keep their blood pressures checked and within the limits. And the following rules are certainly going to help :



Control weight; don't get Overweight : As our body weight increases, the blood pressure rises. In fact, being overweight can make us more vulnerable to high BP as compared to the levels of desirable weight. Further, it is not the question of weight but it also matters where exactly on our body the excess weight is stored. Some people tend to gain weight around their belly; others, around the hips and thighs. "Apple-shaped" people who have a pot belly (that is, extra fat at the waist) appear to have higher health risks than "pear-shaped" people with heavy hips and thighs. However, losing weight is more important than to think of being pear shaped.

Losing weight is not difficult; the principle is; fewer intake of calories than we can burn. At the same time in the name of health, don't opt for crash diet. The slower the weight lose, the longer it will be maintained. Under the ideal situations, losing around 1 pound a week is good enough. Just cut down by 500 calories a day and enhancing the physical activity, this target of 1 pound a week loss can be achieved easily. **Please see below how to eat and get on our way to a lower weight:**

- **Choose foods low in calories and fat:** Low calorie foods cuts calories. But foods low in fat also cuts calories? Fat is a concentrated source of calories, so eating fewer fatty foods will also reduce calorie intake. For example:

butter, margarine, regular salad dressings, fatty meats, skin of poultry, whole-milk dairy foods like cheese, fried foods, and many cookies, cakes, pastries, and snacks.

- **Choose foods high in fibre and starch :** Nutritionally starch and fibre are considered excellent substitutes for fats. They are lower in calories than foods high in fat and are also good sources of vitamins and minerals.

- **Serving sizes should be small :** Besides the type of foods we eat, the quantity is also very important. With a food in fewer calories, the size and quantity of food must be small for better results.

- **Helpful tips:** Keep track of what is eaten, when and why? This can easily be done by maintaining a diary. Mention without fail the timings of food taken, why the food was taken on that particular time, how many times junk food, how many times and with whom what food and so on.

After studying own food habits, certain goals can be set easily; like cutting back on TV snacks and, avoiding junk food, drinks, or taking fresh juice and when and where and so on. Suppose there is no time for breakfast at home, go for a whole wheat veg sandwich or take a low fat bagel and skip cream and cheese or have cereal with you to eat at workplace. Changing the food habits will certainly help change weight for the better.

Increase physical activity: Another important ingredient of losing weight is increasing physical activity, which burns calories. Cutting down on fat and calories combined with regular physical activity can help lose more weight and also keep it off longer. Other activities for example; swimming, jogging, brisk walking, and jumping rope are much beneficial. This means that the body uses oxygen to make the energy it needs for the activity. These physical activities can condition our heart and lungs if done at the right intensity for at least 30 minutes, three to four times a week. **STILL CONSULT YOUR DOCTOR BEFORE YOU START ANY EXERCISE.**

Also choose Foods Lower In Salt & Sodium : Quite often, it has been observed that if people with high blood pressure cut back on salt and sodium, their blood pressure falls. Cutting back on salt and sodium also prevents blood pressure from rising So cut down at salt also and here we have a few tips:

- Look for products that say "sodium free," "very low sodium," "low sodium," "light in sodium," "reduced or less sodium," or "unsalted," when buying canned / packed food which is written on cans, boxes, bottles, and bags.
- Go for fresh, plain frozen, or canned with "no salt added" vegetables. Use fresh poultry, fish and lean meat, rather than canned and processed.
- Use herbs, spices, & salt-free seasoning blends in cooking & at the table instead of salt.
- Cook rice, pasta, and hot cereals without salt. Cut back on instant or flavored rice, pasta, and cereal mixes because they usually have added salt.
- Cut back on frozen dinners, mixed dishes like pizza, packaged mixes, canned soups or broths, and salad dressings which often have a lot of sodium.

If You Drink Alcoholic Beverages, Do So In Moderation : Drinking too much alcohol can raise your blood pressure. Better leave this habit otherwise take one to two drinks a day that too, with the advice of your doctor.

What Else Might Prevent High Blood Pressure?

Potassium. Eating foods rich in potassium appears to protect some people from developing high blood pressure. Many fruits, vegetables, dairy foods, and fish are good sources of potassium.

Calcium. Populations with low calcium intakes have high rates of high blood pressure. However, it has not been proven that taking calcium tablets will prevent high blood pressure. But it is important to be sure to get at least the recommended amount of calcium -- 800 milligrams per day for adults (pregnant and breastfeeding women need more) -- from the foods you eat. Dairy foods like, low fat selections of milk, yogurt, and cheese are good sources of calcium. Low fat and nonfat dairy products have even more calcium than the high fat types.

Magnesium. A diet low in magnesium may make your blood pressure rise. But doctors don't recommend taking extra magnesium to help prevent high blood pressure – the amount you get in a healthy diet is enough. Magnesium is found in whole grains, green leafy vegetables, nuts, seeds, and dry peas and beans.

Fish oils. A type of fat called "omega-3 fatty acids" is found in fatty fish like mackerel and salmon. Large amounts of fish oils may help reduce high blood pressure, but their role in prevention is unclear. But taking fish oil pills is not recommended because high doses can cause unpleasant side effects. The pills are also high in fat and calories. Of course, most fish if not fried or made with added fat are low in saturated fat and calories and can be eaten often.

Ayurved has a lot for High Blood Pressure cure.

Several herbal medicines are available. Even the patients can help themselves by prevention techniques and home remedies. One such known herbal product is Sarpagandha : Since ancient times, Rauwolfia serpentina has been used to treat hypertension (high B.P.). Arjuna is another well known name in herbal medicines. It acts like a beta blocker and is the best antioxidant, liver protectant and contains cardio-protective, hypolipidemic, anti-angina and anti-atheroma properties. Gokshura : (Tribulus terrestris) is a natural herb used for treating many diseases including hypertension. It has shown to be diuretic and an ACE inhibitor. Another helpful and common name is Gulab (Rose) : Its Gulkand is known for its calming and mood lifting effects. Also Praval Bhasma, the Indian Coral Powder provides elemental calcium and magnesium.

Home Remedies: Garlic is most important substance helpful in alleviating vata dosha controlling blood pressure. Garlic lowers cholesterol and triglyceride that have impact on heart disease. It can be used in the form of paste or just take two to three fresh cloves empty stomach in the morning which is good for all gastric problems, cholesterol and High BP. Another simple home remedy is ; soak 1 tsp fenugreek seed in water for a night and munch them early in the morning on empty stomach. It will reduce your cholesterol and excess fats. Also Powder of Triphala, should be taken regularly at night with warm water. This helps maintain constipation and bowels remain clean. Panchakarma: Niruha basti Chikitsa (non unctuous enema) is beneficial in hypertension and should be given by experienced physician.

There are many other factors which can be taken into account for the prevention of High Blood Pressure. However, one learns from self only. Every body is different with different composition and needs. So it is important that first we know about our body, analyze its actual requirements and then act accordingly so that this silent killing disease could be taken care of.

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(Sources: BPA, UK / Ayurved Nighantu / Mayo Clinic / On High BP by Sheldon Sheps M.D. / American Heart Association / Dr. A. Kumar)

