

The **HEART** is a muscular organ which pumps blood through the blood vessels of the circulatory system.

Blood provides the body with oxygen and nutrients, as well as assisting in the removal of metabolic wastes.

Our circulation is similar to a highly sophisticated form of plumbing - blood has 'flow' and arteries are 'pipes.'

Blood flows through our body because of a difference in pressure.

When our heart pumps blood into arteries, it pushes the blood along under a head of pressure.

Doctors measure our blood pressure as a way of quantifying the force being exerted by this moving blood against the walls of arteries.

Because the heart beats, the blood flow through the arteries is not steady (as with a fire hose), but pulsatile, and the flow of blood, and the pressure it exerts, fluctuate from moment to moment.

For this reason, the measurement of a person's blood pressure is recorded as two different numbers — the systolic blood pressure and the diastolic blood pressure.

These two numbers reflect different aspects of the pressure being exerted by our blood as it pulses through arteries.

#### Importance of Measuring Blood Pressure during Quiet Rest

Systolic and diastolic blood pressure (the highest and the lowest blood pressure reached during any given cardiac cycle) can change substantially from minute to minute depending on your state of activity, your state of stress, your state of hydration, and several other factors. The standard recommended by experts requires the blood pressure to be taken in a calm, warm environment after you have been resting quietly for at least five minutes.





<u>HEALTHY</u> <u>Heart</u>

# **Blood Pressure**

	SYSTOLIC TOP NUMBER	mm Hg	DIASTOLIC BOTTOM NUMBER	
normal	BELOW 120	AND (	BELOW 80	
elevated	120 - 129		BELOW 80	
high blood pressure STAGE 1	130 - 139	OR (	80 - 89	
high blood pressure STAGE 2	140 OR HIGHER	OR (	90 OR HIGHER	
hypertensive crisis	ABOVE 180			
healthline				



		COMPLICATIONS	CAUSAL FACTORS		REMEDY
PRESSURE	High blood pressure doesn't cause symptoms unless you're in hypertensive crisis. It's actually known as a "silent killer " because it quietly	<ul> <li>heart attack</li> <li>Vision problems</li> <li>Vision loss</li> </ul>	<ul> <li>Age: Aging increases your risk of damaged and narrowed arteries and weakened or thickened heart muscle.</li> <li>Sex: Men are generally at greater risk of heart disease. However, women's risk increases after menopause.</li> <li>Family history. A family history of heart disease increases your risk of coronary artery disease, especially if a parent developed it at an early age</li> <li>Smoking. Nicotine constricts your blood vessels, and carbon monoxide can damage their inner lining, making them more susceptible to atherosclerosis. Heart attacks are more common in smokers than in non-smokers.</li> </ul>	ELEVATED	No medications are necessary for elevated blood pressure. But this is when you should adopt healthier lifestyle choices. A balanced diet and regular exercise can help lower your blood pressure to a healthy range
HIGH BLOOD	damages your blood vessels and organs, and you may not realize you have it until the damage is done.	mages your od vessels d organs, d you may realize you /e it until damage is		HIGH BLOOD PRESSURE (HYPERYENSI ON STAGE 1)	Doctor can help you measure and track your blood pressure to confirm whether it's too high. Start taking medications if blood pressure doesn't improve after one month of following a healthy lifestyle, especially if individual is already at high risk for heart disease. If person is at lower risk, doctor may want to



Certain chemotherapy drugs     and radiation therapy for     cancer. Some chemotherapy     drugs and radiation therapies may     increase the risk of cardiovascular		follow up in three to six months after you've adopted more healthy habits.
<ul> <li>disease.</li> <li>Poor diet. A diet that's high in fat, salt, sugar and cholesterol can contribute to the development of heart disease.</li> <li>High blood pressure. Uncontrolled high blood pressure can result in hardening and thickening of your arteries, narrowing the vessels through which blood flows.</li> <li>High blood cholesterol levels.</li> </ul>	HIGH BLOOD PRESSURE (HYPERYENSI ON STAGE 2)	Doctor will recommend one or more medications for keeping blood pressure under control. But individual shouldn't rely solely on medications to treat hypertension. <u>Lifestyle</u> <u>habits</u> are just as important in stage 2 as they are in the other stages.
<ul> <li>High levels of cholesterol in your blood can increase the risk of formation of plaques and atherosclerosis.</li> <li>Diabetes. Diabetes increases your risk of heart disease. Both conditions share similar risk</li> </ul>	HYPERTENSIV E CRISES (DANGER ZONE)	Blood pressure in this range requires urgent treatment by specialized doctor even if there are no accompanying symptoms. Emergency treatment shall be sought by individual having



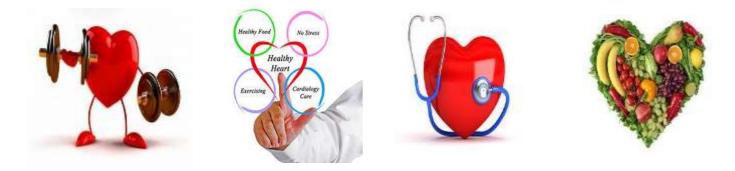
<ul> <li>factors, such as obesity and high blood pressure.</li> <li><b>Obesity.</b> Excess weight typically worsens other risk factors.</li> <li><b>Physical inactivity.</b> Lack of exercise also is associated w many forms of heart disease some of its other risk factors, well.</li> <li><b>Stress.</b> Unrelieved stress madamage your arteries and wo other risk factors for heart dis</li> <li><b>Poor hygiene.</b> Not regularly washing other habits that help prevent viral or bacterial infections can put you at risk heart infections, especially if already have an underlying h condition. Poor dental health may contribute to heart disea</li> </ul>	<ul> <li>and as paralysis or a loss of muscle control in the face or an extremity</li> <li>Blood in your urine</li> <li>Dizziness</li> <li>Headache</li> </ul>
--	--



	COMPLICATIONS	SYMPTOMS	CAUSALFACTORS		REMEDY
Low blood pressure is kn as <u>hypotension</u> adults, a blood pressure read 90/60 mm Hg below is often considered hypotension. T can be danger because blood pressure that is low doesn't su your body and heart with eno oxygenated bl	. In to lack of blood and oxygen supply and oxyg	<ul> <li>Dizziness</li> <li>Fainting</li> <li>Seizures</li> <li>Chest pain</li> <li>Falling</li> <li>Loss of balance</li> <li>Nausea</li> <li>Thirst</li> <li>Inability to concentrate</li> <li>Headaches</li> <li>Blurred vision</li> <li>Fatigue</li> <li>Shallow breathing</li> <li>Shortness of breath</li> <li>Clammy skin</li> <li>Bluish-tinged skin</li> </ul>	<ul> <li>Heart problems</li> <li>Dehydration</li> <li>Pregnancy</li> <li>Blood loss</li> <li>Severe infection (septicemia)</li> <li>Anaphylaxis</li> <li>Malnutrition</li> <li>Endocrine problems</li> <li>Certain medications</li> </ul>	HYPOTENSION	Consult doctor to find out the cause of low blood pressure and what can be done to raise it.



#### Preventive Measures



Individual shall take preventive measures to keep blood pressure in the normal range. This can help to lower risk of developing hypertension, heart disease, and stroke.

The following preventive measures can help lower or stave off high blood pressure:

#### □ Reducing sodium intake

Some people are sensitive to the effects of sodium. These individuals shouldn't consume more than 2,300 mg per day. Adults who already have hypertension may need to limit their sodium intake to 1,500 mg per day.

It's best to start by not adding salt to foods, which would increase your overall sodium intake. Limit processed foods as well. Many of these foods are low in nutritional value while also high in fat and sodium.

#### **Reducing caffeine intake**

Reduce your caffeine intake. Talk to your doctor to see if caffeine sensitivity plays a role in your blood pressure readings.

#### □ Healthy Food

Diet rich in fiber i.e vegetables, beans, oats, barley, apples etc. are very helpful in lowering the bad cholesterol of the body. Additionally, sea food diet rich in omega-3 fatty acids can help ward off heart disease. Almonds, walnuts, pecans, and other tree nuts deliver a powerful punch of heart-healthy fats, protein, and fiber. Including them in your diet can help lower your risk of cardiovascular disease.

We need fats in our diet, including saturated and polyunsaturated and unsaturated fats. One fat we don't need is trans fat, which is known to increase your risk of developing heart disease or having a stroke over a lifetime. This is because trans-fat clogs our arteries by raising our bad cholesterol and lowering our good cholesterol levels. By cutting them from your diet, you improve the blood flow throughout your body.

#### **Exercising**

Exercise more often. Consistency is key in maintaining a healthy blood pressure reading. It's better to exercise 30 minutes every day rather than a few hours only on the weekends. Try gentle



yoga routine to lower blood pressure.

Laughing out loud is another essential method to keep heart healthy. It lowers stress hormones, decrease inflammation in your arteries, and raise our levels of good cholesterol.

#### □ Maintaining a healthy weight

If already at a healthy weight, maintain it. Or lose weight if necessary. If overweight, losing even 5 to 10 pounds can make an impact on your blood pressure readings. Please check suitability as per Body mass index.

#### □ Managing stress

Manage your stress levels. Moderate exercise, yoga, or even 10-minute meditation sessions can help. Get your mind occupied with creative hobbies.

#### □ Reducing alcohol intake and quitting smoking

Reduce your alcohol intake. Depending on your situation, you may need to stop drinking altogether. It's also important to quit or refrain from smoking. Smoking is incredibly harmful to your heart health.