



Blood Pressure

What You Need to Know

The Challenge

About one in four adults in the U.S. has high blood pressure. That's 50 million people. Another 22%, or 45 million, have "pre-high blood pressure". This modest elevation in pressure doubles the risk of heart attack and stroke but most people are not aware of any problem.

What is a Healthy Blood Pressure?

The National Institutes of Health (NIH), the heart section, has recently set new blood pressure standards¹.

Blood Pressure Norms

Normal blood pressure (Low risk)	Less than 120/80
Pre hypertension (Moderate risk)	120/80 to 139/89
High blood pressure stage 1 (High Risk)	140/90 to 159/99
High blood pressure stage 2 (Very high risk)	160/100+

The latest research shows that risk for heart attack and stroke begins to climb at any pressure greater than 115/75. The risk then doubles for every 20-point increase in systolic blood pressure (top number) and every 10-point increase in diastolic pressure. This is why the new definition of "normal", or a healthy blood pressure, is defined as a pressure less than 120/80.

High Blood Pressure

A pressure of 140/90 is called high blood pressure or hypertension. Pressures this high needs treatment by your doctor to prevent serious health complications from occurring such as:

- Damage of the eyes leading to blindness
- Damage to the kidneys leading to kidney failure
- Damage to the arteries leading to heart disease and stroke
- Damage to the heart muscle leading to congestive heart failure.

Preventing Disease

By keeping blood pressure in a healthy range you significantly reduce your risk for these serious health conditions. By adopting five key health practices you can prevent most high blood pressure from ever occurring and reduce high blood pressure in up to 50-77% of people with stage 1 hypertension.

A recent lifestyle change program called PREMIER² studied more than 800 people with stage 1 high blood pressure. They were put on a healthy lifestyle program for 6 months to see how many could lower their blood pressure by just making lifestyle changes.

In 6 months, 77% of those with high blood pressure at the start of the study were able to lower their pressure below the 140/90 mark designating high pressure.

Guidelines for Lowering Blood Pressure

Here are the five guidelines recommended by NIH for preventing and controlling high blood pressure used in the PREMIER study.

1. Achieve and maintain a healthy weight (BMI less than 25). Even a small weight loss is very helpful. In the PREMIER study participants lost only 10-15 pounds. For every 10-20 pounds lost your blood pressure can be expected to drop by 5-20 points.

2. Eat healthfully. NIH recommends a diet called the "DASH Diet". It has been used in several studies and has shown good results in lowering blood pressure.

Here are the key points:

- Eat lots of fruits and vegetables, at least 8-9 servings daily
- Consume low or non-fat dairy products (such as milk or yogurt)
- Reduce saturated fat to less than 7% of calories
- Eat whole grain breads and cereals daily
- Eat nuts daily and choose healthy fats.

Blood Pressure

Carefully following the DASH diet will generally drop blood pressure by 8-14 points.

3. Limit sodium or salt intake to no more than 2400 mg/day. A high sodium intake increases blood pressure. Most people eat about twice this much. Limit salty foods (e.g. chips, pickles, canned vegetables and juices, soups, snack foods, processed and packaged foods). Read labels carefully.

Sodium in Foods	
	Mg
String beans, fresh, ½ C	2
String beans, canned	170
Tomato, one, fresh	7
Stewed tomato canned	400
Potato, baked, one	8
Potato chips, 1 oz.	213
Potato French Fries, 20	216
Potatoes Au Gratin, 1 C	1076
Chicken noodle soup 1C	460
Cream of mushroom 1C	881

Use salt sparingly at the table if at all. "Lite" salt is available in most groceries. It cuts your sodium intake by more than half if equal amounts are used.

4. Get regular physical activity, 30+ minutes daily. Engage in regular, moderate aerobic activities such as brisk walking for 30 minutes or more, most days of the week. Regular walking can reduce blood pressure by 4-9 points.

Exercise helps reverse many of the negative effects of high blood pressure.

Here is how regular, aerobic exercise benefits blood pressure:

- Keeps the arteries flexible and healthy
- Burns extra calories helping keep weight under control
- Strengthens the heart and generally improves the circulation.
- Reduces blood fats.

Fitness studies show that people with high blood pressure who exercise regularly actually have a lower risk of heart disease than persons without high blood pressure who are sedentary. Exercise is important for everyone, especially those with high blood pressure.

Examples of moderate activities include:

- Gardening and yard work such as mowing
- Swimming
- Biking at a moderate pace
- Walking at 3-4 mph
- Low impact aerobics
- Golf, walking and pulling clubs
- Calisthenics
- Volleyball

Go easy when first starting. Don't overdo. If you can only go 10 minutes at a time that's OK. Just do it two or three times a day to accumulate the 30 minutes. Gradually increase intensity and time of exercise.

If your pressure is very high (stage 2) or you already have other serious health problems such as heart

disease or diabetes, get your doctor's specific guidance before starting.

5. Limit alcohol consumption. A high intake of alcohol is especially hard on blood pressure. For best results, don't drink. If you choose to drink, the NIH recommends that you limit intake to no more than one drink per day for women or two drinks per day for men.

These are the primary factors that help you maintain a healthy blood pressure. If your pressure remains high after making these changes your doctor may prescribe a medication to lower your pressure. Be sure to follow your doctor's guidance carefully.

If you have problems or side effects, talk to your doctor to see what can be done. As your pressure comes down, so does your risk for a stroke and other health problems.

Here are some other simple remedies to try:

- Get 7-8 hours of sleep daily – naps are OK
- Keep your stress load reasonable
- Relax and do something fun daily
- Spend some quiet time daily in prayer or meditation
- Maintain a cheerful, hopeful outlook on life.

References

1. NIH Blood Pressure Guidelines, JAMA May 21, 2003
2. PREMIER Study, JAMA Apr 23/30, 2003

Updated 5-19-2003 DRH LA