What Is Hypertension?

Hypertension, or high blood pressure, is one of the most common health conditions in America, affecting about one in three adults and an increasing number of children. Blood pressure (BP) is measured in millimeters of mercury (mm Hg). The systolic pressure (upper number) is the pressure when the heart contracts, pushing blood through the vessels. The diastolic pressure (lower number) is the pressure when the heart relaxes and fills with blood. A new definition of hypertension was released by the American College of Cardiology and the American Heart Association in 2019. Now, normal BP is below 120/80, elevated BP is when systolic pressure is between 120–129, Stage 1 hypertension is diagnosed at 130–139 systolic or 80–89 diastolic, and Stage 2 hypertension occurs at >140 systolic or >90 diastolic. Hypertension is among the most common risk factors for other diseases, including strokes, heart attacks, heart failure, kidney disease, vision loss, and problems with sexual functioning.

Causes

For a few people, the onset of hypertension is attributed to another medical problem (for instance, a hormone disorder). For most people (as much as 90% of cases) there is no identified cause for their high blood pressure. Often there are no symptoms associated with hypertension. Usually, routine blood pressure checks identify those with high blood pressure. Hypertension is more common among older adults, those who are overweight or obese, those with relatives who have hypertension, and Black populations in the United States. It is important to detect and treat hypertension because it is a risk factor for many other diseases.

Treatment

Lifestyle modifications, such as dietary changes, physical activity, and stress reduction, are recommended for almost everyone who is diagnosed with hypertension. Medications are also a primary means to reduce blood pressure, particularly for those with greater severity or difficulty controlling their hypertension through lifestyle changes. Medications for hypertension can be difficult to take consistently as a result of unwanted side effects or challenges integrating medication into daily routine. Behavioral health professionals trained in behavioral and cognitive interventions can help people make lifestyle changes and adhere to medical treatment plans.

Lifestyle Modifications for Hypertension

Lifestyle modifications for hypertension help people to lose weight, increase physical activity, reduce alcohol intake, quit smoking, decrease dietary salt (sodium), manage stress, and take medications as prescribed.

Losing Weight

For those who are overweight or obese, every 1 kg (2.2 lbs) lost is expected to drop systolic blood pressure 1 mm Hg. Losing 10 pounds may be enough to reduce or eliminate the need for blood pressure medication in some individuals with hypertension. Behavior modification techniques used to assist weight loss include setting realistic goals, monitoring food in-
Most adults consume an average of 3,400 mg of sodium per day. To help reduce blood pressure, it is recommended that adults limit their sodium consumption to no more than 2,300 mg (i.e., one teaspoon) a day, with more conservative recommendations not to exceed 1,500 mg a day. Often it is not the salt that individuals add to food that is biggest source of sodium. Packaged, processed, and restaurant foods account for 70% of the sodium consumed by Americans. Bread, pizza, breakfast cereals, soups, snack foods, and salad dressings are common sources of sodium. Reducing the consumption of these foods or substituting low-sodium alternatives can help reduce the amount of sodium consumed. Eating out, especially at fast food restaurants where salt is a major ingredient, requires planning ahead about the foods that would be the best choices.

Blood pressure is also improved when individuals consume 3,500 to 5,000 mg of potassium a day. Many beans (kidney, lentils, lima, and soybeans), fruits (bananas, oranges, prunes), and vegetables (broccoli, cucumbers, eggplant, leafy greens) are rich in potassium. As a guide for changing your eating, the DASH (Dietary Approaches to Stop Hypertension) diet and Mediterranean-style diets have both been shown to help reduce blood pressure. Both of these diets encourage eating whole grains, vegetables, fruits, and nuts; there are some differences in the amount of fish, lean meats, and poultry that are recommended. Most important, you are making choices to eat food that you enjoy and habits you can sustain, while reducing your sodium and increasing your potassium content.

Moving more and sitting less can help reduce blood pressure. It is recommended that adults engage in moderate-intensity aerobic physical activity (this raises your heart rate and breathing rate), such as brisk walking for 30 minutes, 5 days week. This level of activity can help reduce blood pressure, maintain weight loss, and reduce the risk for many health problems. The 30 minutes doesn't have to occur all at once, you can break it into smaller blocks of time (maybe 10 minutes, 3 times a day). Engaging in muscle-strengthening activities 2 days a week can also help to reduce blood pressure and improve health. People with high blood pressure or other cardiovascular disease risk factors should consult their medical providers before beginning any type of physical activity program. Behavioral techniques, such as goal-setting and activity diaries, can help people find ways to improve their physical activity.

Limiting alcohol to 2 drinks a day for men and 1 drink a day for women can help reduce blood pressure among those individuals who are drinking alcohol above these levels. Behavioral and cognitive therapists can help individuals reduce their drinking. Individuals who cannot limit their drinking may need assistance in becoming and remaining abstinent. Quitting smoking may be another powerful way to reduce the risk of hypertension and related diseases. Behavioral and cognitive-behavioral therapies, along with nicotine replacement, are now part of standard care for smoking cessation and relapse prevention.

For blood pressure medications to be effective they must be taken as prescribed. It can be difficult to take medications regularly, particularly if there are side-effects (e.g., more frequent urination) that are uncomfortable or interfere with other valued activities. It can be valuable to learn and implement techniques (e.g., pill boxes, reminder apps) to help remember and plan when to take medications.

Stress management may involve learning methods to change thinking as well as methods for increasing physical relaxation (e.g., deep breathing, progressive muscle relaxation). A variety of simple meditation techniques can help lower stress, calm the body’s fight-or-flight response, and may reduce blood pressure. Mindfulness-based interventions often focus on in-
creasing one’s awareness and acceptance of thoughts, feelings, sensations, and impulses “in
the moment,” which, in turn, can aid in responding versus reacting to stress. Stress manage-
ment techniques may be a useful complement to other interventions for hypertension, but
these interventions, by themselves, typically have small effects on blood pressure and may
not reduce blood pressure for the long term.

**How Can a Cognitive and Behavioral Therapist Help?**

Making changes in what we do and how we think can be challenging. Cognitive and behav-
ioral therapists are trained to help individuals make these changes. These therapists will work
with individuals to identify goals and will provide guidance and intervention to help individ-
uals make the necessary changes in their behaviors and thinking that will make the goals
possible. Sometimes it can be helpful to find a clinical health psychologist who has special-
ized training in helping those with medical problems.

Your behavioral health provider will likely collaborate with your medical provider and
other health care providers (e.g., dieticians, nurses, social workers) to help you meet your
goals. Whatever changes you make, it is important to discuss those changes with your med-
ical provider. You and your medical provider need to ensure that the changes you are making
are safe for you; and it will be important to monitor how your blood pressure changes as you
make behavior changes.

**RESOURCES**

- **General Information About Hypertension**
  https://www.heart.org/en/health-topics/high-blood-pressure
  https://www.nhlbi.nih.gov/health-topics/high-blood-pressure

- **Reducing Sodium**
  https://www.fda.gov/food/nutrition-education-resources-materials/
  use-nutrition-facts-label-reduce-your-intake-sodium-your-diet

- **DASH and Mediterranean Diets**
  https://www.nhlbi.nih.gov/health-topics/dash-eating-plan
  https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/
  in-depth/mediterranean-diet/art-20047801

- **Improving Physical Activity**
  https://www.cdc.gov/physicalactivity/index.html

- **Stress Management and Mindfulness-Based Interventions**
  https://nccih.nih.gov/health/providers/digest/Hypertension-science
  https://www.heart.org/en/healthy-living/healthy-lifestyle/mental-health-and-
  wellbeing/meditation-to-boost-health-and-wellbeing