



National High Blood Pressure
Education Program

Prevent and Control America's High Blood Pressure: Mission Possible




Join the mission to dramatically reduce death and disability
for the millions affected by high blood pressure



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institutes of Health
National Heart, Lung, and Blood Institute

High Blood Pressure: A Force



The National High Blood Pressure Education Program was created 30 years ago by the National Heart, Lung, and Blood Institute. The Program is a partnership of more than 40 national professional, public, and voluntary health organizations. Its purpose: to prevent, detect, and control high blood pressure to improve the life expectancy and quality of life for all Americans.

As a result of the Program, almost all Americans have had their blood pressure measured, and high blood pressure control rates have almost tripled. We now have vastly better resources, knowledge, and treatments to control high blood pressure. But a major Program goal—that 50 percent of Americans with high blood pressure have it under control—has yet to be fulfilled.

That mission has now become a part of Steps to a HealthierUS—a disease prevention initiative from the U.S. Department of Health and Human Services that focuses on reducing the burden of chronic diseases in this country. It does this by addressing the lifestyle choices that are responsible for many of them, including heart disease and stroke for which high blood pressure is a major risk factor.



National High Blood Pressure
Education Program

- High blood pressure increases our risk for heart disease—the #1 cause of

to be Reckoned With

Together, we can prevent and control a health problem that affects 1 in 3 American adults: high blood pressure



The threat

- High blood pressure affects 65 million Americans.
- Another 59 million Americans have prehypertension, which increases their chances of developing cardiovascular disease.
- People over 55 have a 90 percent chance of developing high blood pressure in their lifetime.
- High blood pressure can lead to other life-threatening illnesses.
- These include the #1, #3, and #9 causes of death in the United States: heart disease, stroke, and kidney disease.
- As the United States population becomes older—and increasingly overweight and obese—high blood pressure will become an even bigger problem. Unless we act now.

The solution

- High blood pressure can be prevented and controlled.
- We must work together to accomplish this.
- We have more knowledge about prevention and better treatment options than ever before.
- We must use this new information to save ourselves and future generations.

The Mission: Save Millions of Americans



High blood pressure: A force to be reckoned with

Blood pressure is the force of blood against the walls of arteries. When that force stays too high, it becomes a life-threatening condition—high blood pressure (also called hypertension). It makes the heart work too hard, hardens the walls of arteries, and can cause the brain to hemorrhage or the kidneys to function poorly or not at all. The toll on American lives, quality of life, and health care costs is staggering.

Risky business

Anyone can develop high blood pressure. But these factors increase the odds: being overweight or obese, being physically inactive, high salt and sodium intake, low potassium intake (due to not eating enough fruits and vegetables), excessive alcohol consumption, and diabetes.

Prehypertension (120/80 to 139/89 mmHg) increases heart disease* and stroke risk in both men and women

*Including heart attack and coronary heart disease



45 percent
increased risk

men

100 percent
increased risk

women

How many lives can we improve?

- The 65 million Americans who already have high blood pressure.
- The 59 million Americans who have prehypertension, which tends to progress to high blood pressure.
- The 18 million people with diabetes who are more likely to develop high blood pressure than the population at large.
- The 122 million American adults who are overweight or obese and, therefore, more likely to develop high blood pressure than the population at large.
- The nearly 60 million Americans ages 55 and over whose chances of developing high blood pressure during their lifetimes are 90 percent.

Everyone needs to know their numbers

- There are often no signs or symptoms.
- That's why high blood pressure is called the silent killer.
- Blood pressure numbers are the only warning.



Optimal blood pressure

the pressure of blood in the vessels when the heart beats:
systolic pressure

the pressure between beats when the heart relaxes:
diastolic pressure

less than
120/80 mmHg

millimeters of mercury

High blood pressure

140/90 mmHg or higher

Prehypertension

between 120-139 and/or 80-89 mmHg

Optimal blood pressure

less than 120/80 mmHg

Strategies for Saving Lives



Treat hypertension

Physicians and patients can now control high blood pressure more effectively than ever before. Simple, and often modest, lifestyle changes can quickly improve health and quality of life, and there are a variety of effective medicines available to control high blood pressure.

Take special measures within the African American community

High blood pressure is a major factor underlying African Americans' lower life expectancy. It is also the most important reason why African Americans are 4 times more likely to develop kidney failure than Caucasians.

African American women are especially affected. They are 3 times more likely to die of heart disease or stroke before age 60 than Caucasian women.

Protect older Americans

The likelihood of developing high blood pressure increases with age. New research shows that middle-aged and older Americans have a 90 percent chance of developing high blood pressure in their lifetimes. Treating high blood pressure in older people can reduce their odds of having a heart attack by 27 percent, a stroke by 35 percent, and heart failure by 54 percent.

Protect women

More women than men have died of cardiovascular diseases every year since 1984. As many women die from these diseases each year as the next 6 causes of death combined, including breast cancer. Early detection and treatment of high blood pressure could prevent many of these deaths.

Establish healthy habits

Keys to prevention: losing weight, if overweight, and maintaining a healthy weight; being physically active; following an eating plan that emphasizes fruits and vegetables and lowfat dairy foods, is moderate in total fat, and low in saturated fat and cholesterol; eating less salt and sodium; controlling blood sugar if you are diabetic, and if you drink alcoholic beverages, doing so in moderation.

New knowledge is already saving lives

By applying new knowledge, we can do more to prevent and control high blood pressure. These are some recent findings that are already making a difference.

- Systolic blood pressure, the top number in a blood pressure reading, is key to watch—especially in older Americans. Research shows that the effective treatment of high systolic blood pressure saves lives and greatly reduces illness.
- Prehypertension presents more danger than earlier believed. Millions of Americans with blood pressures between 120/80 and/or 139/89 mmHg are at greater risk of developing high blood pressure, heart disease, and kidney failure. In fact, new research shows that the odds of your developing heart disease and stroke start to increase at levels as low as 115/75 mmHg and double for each 20/10 mmHg.
- An eating plan that emphasizes fruits, vegetables, and lowfat dairy foods, is lower in salt, moderate in total fat, and low in saturated fat and cholesterol can prevent and lower high blood pressure.
- Recent improvements in control rates show that more Americans than ever are succeeding in controlling their high blood pressure, proving that change is possible.



Individual actions

Lose weight if overweight, and maintain a healthy weight.

Follow an eating plan that emphasizes fruits, vegetables, and lowfat dairy foods, and is moderate in total fat and low in saturated fat and cholesterol.

If you drink alcoholic beverages, do so in moderation.

Be physically active.

Work up to at least 30 minutes of a moderate-level activity, such as brisk walking or gardening, each day.

Reduce salt and sodium intake.

Choose and prepare foods with less salt and add less salt at the table. Read food labels to choose canned, processed, and convenience foods that are lower in sodium.

Ask your health care professional what your blood pressure numbers are and what they mean.

If you need medication, make sure you understand what it's for and how and when to take it, then take it as your doctor recommends.

Quit smoking.

Smoking injures blood vessel walls and speeds up the process of hardening of the arteries. It increases the risk of stroke, heart disease, peripheral arterial disease, and several forms of cancer.

Control your blood sugar if you have diabetes.



Naming the Mission: Achieving the



Goals

- By the year 2010 we will accomplish our mission.
- 50 percent of Americans will have their high blood pressure under control.
- 95 percent of Americans will know if their blood pressure is normal or high.
- The percentage of Americans with high blood pressure will be reduced from 25 percent to 16 percent.
- The risk of a heart attack in older Americans will be reduced by 27 percent.
- The risk of stroke in older Americans will be reduced by 36 percent.
- The risk of heart failure in older Americans will be reduced by 54 percent.
- Millions of Americans will have taken steps to prevent and control high blood pressure.
- Many lives and billions of dollars will be saved.

Healthy People 2010

Healthy People 2010 is a national health promotion and disease prevention initiative to reduce illness and deaths in the United States and improve the quality of life for all Americans.

Steps to a HealthierUS

Steps to a HealthierUS is a prevention initiative from the U.S. Department of Health and Human Services that advances President George W. Bush's HealthierUS goal of helping Americans live better, longer, and healthier lives. It focuses on reducing the burden of chronic diseases and addressing the lifestyle choices that are responsible for some of the leading causes of death and disability in this country, including heart disease and stroke for which high blood pressure is a major risk factor.

Goals of Healthy People 2010

Reduce health care costs by billions

- Treating high blood pressure in older people can reduce the risk of heart attacks by 27 percent, averting 190,000 cases annually and providing annual savings of \$1.9 billion. Treatment can also avert 180,000 strokes and 300,000 cases of heart failure annually, saving approximately \$3.4 billion each year.
- High blood pressure causes more visits to doctors than any other condition, accounting for 48 million visits per year. Even a 20 percent decline would provide savings of \$956 million.

We know what to do to reduce the risks and costs.

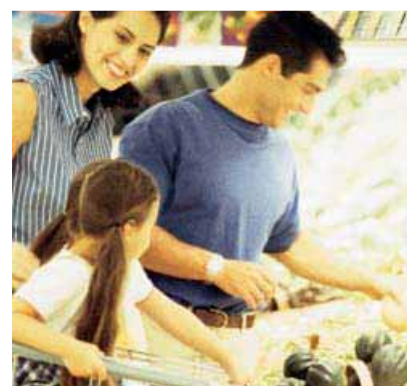
But we need your help.



In 1998 alone, \$109 billion—12 percent of all diagnosis-specific spending—was spent on health care for high blood pressure and its complications, including \$22 billion spent directly on high blood pressure.

Action plan

- Make the benefits of simple actions understood and embraced.
- Involve every individual and institution of society in playing a role.
- Create new, innovative partnerships—with cities, towns, civic groups, and businesses.
- Enlist key players in making a difference—such as encouraging food manufacturers to reduce sodium in processed food.
- Mobilize those who share a common purpose in reducing death and disability from high blood pressure.
- Promote and market tailored tools and messages for individuals working to achieve improved personal health.



Join the Mission: Partnerships To

The National High Blood Pressure Education Program is a partnership of leading national organizations that have enlisted in this vital mission to create a healthier America. Don't wait to add your organization to this prominent list.

National Heart, Lung, and Blood Institute • American Academy of Family Physicians • American Academy of Insurance Medicine • American Academy of Neurology • American Academy of Ophthalmology • American Academy of Physician Assistants • American Association of Occupational Health Nurses • American College of Cardiology • American College of Chest Physicians • American College of Occupational and Environmental Medicine • American College of Physicians • American Society of Internal Medicine • American College of Preventive Medicine • American Dental Association • American Diabetes Association • American Dietetic Association • American Heart Association • American Hospital Association • American Medical Association • American Nurses Association • American Optometric Association • American Osteopathic Association • American Pharmaceutical Association • American Podiatric Medical Association • American Public Health Association • American Red Cross • American Society of Health-System Pharmacists • American Society of Hypertension • Association of Black Cardiologists • Citizens for Public Action on High Blood Pressure and Cholesterol, Inc. • International Society on Hypertension in Blacks • National Black Nurses Association, Inc. • National Hypertension Association, Inc. • National Kidney Foundation, Inc. • National Medical Association • National Optometric Association • National Stroke Association • Society of Geriatric Cardiology • Society for Nutrition Education • Agency for Healthcare Research and Quality • Centers for Medicare and Medicaid Services • Department of Veterans Affairs • Health Resources and Services Administration • National Center for Health Statistics • National Institute of Diabetes and Digestive and Kidney Diseases • NHLBI Ad Hoc Committee on Minority Populations

Health care professionals

Tell every patient what their blood pressure numbers mean and educate them about the risks of high and high normal blood pressure. Promote practice services by speaking at community events about the dangers of high blood pressure.



Insurance and managed care

Develop innovative programs to reduce claim costs—rewarding lower blood pressures with lower premiums. Enclose flyers in monthly premium statements to educate subscribers about preventing and controlling high blood pressure.



Teachers and educators

Be a role model to prompt and reinforce the benefits of healthy eating and regular physical activity as a way of life. Organize health education days to bolster health classes. Work toward eliminating unhealthy snacks in vending machines.



Communities

Mobilize health care groups, faith-based organizations, and other community and civic groups. Use community health fairs to profile the role high blood pressure plays in overall health for individuals and communities.

Educate, Motivate, Support

Opportunities for business and corporations

- **Cobrand.** Partner with the National High Blood Pressure Education Program (NHBPEP) to cobrand publications or produce joint advertising on preventing and controlling high blood pressure.
- **Be a sponsor.** Sponsor events that promote key ways to prevent and control high blood pressure, including regular screenings for employees and communities where you do business.
- **Strengthen relationships.** Create trust among employees and provide added value to customers and target audiences by including high blood pressure prevention and control messages in marketing programs.
- **Promote healthy eating.** Make sure your vending machines have snacks that are lower in salt, saturated fat, and total fat—such as unsalted pretzels and animal crackers. If you have a cafeteria or sponsor social functions, serve healthier foods.

Direct benefits of corporate partnerships

- Enhanced marketing programs and increased sales.
- Improved customer recognition and goodwill.
- Reduced health care costs and increased productivity.
- Healthier, more energetic employees.



How can your organization be involved?

Opportunities for communities and voluntary agencies

- **Hold regular blood pressure screening events** for everyone in your organization and community.
- **Bolster** your events, campaigns, Web sites, and other communications with NHBPEP messages and information about preventing and controlling high blood pressure.
- **Use your newsletter or direct mailings** to educate readers about high blood pressure prevention and control.
- **Enlist** other organizations to join us.

Direct benefits of community partnerships

- A healthier community.
- Improved quality of life.
- Reduced health care costs.
- Enhanced economic strength.

condition—just a 10 percent decline in the number of visits would save \$160 million each year. • High blood pressure

Resources to help us succeed



Prevent and Control High Blood Pressure:

Mission Possible Web site

More information on joining this vital mission, including ideas and tools for signing up as a partner.

www.nhlbi.nih.gov/missionpossible

Other online NHLBI resources

- *Your Guide to Lowering High Blood Pressure* includes information on how to detect, prevent, and treat high blood pressure. Features the DASH diet, which has been shown to prevent and lower blood pressure, and information specifically for women. www.nhlbi.nih.gov/hbp/index.html
- *Aim for a Healthy Weight* includes a BMI calculator and a menu planner that is designed to guide daily food and meal choices based on 1 day's calorie allowance. www.nhlbi.nih.gov/health/public/heart/obesity/lose_wt/index.htm
- *Live Healthier, Live Longer* includes interactive materials for people with heart disease and those who want to prevent it. www.nhlbi.nih.gov/chd/index.htm

General information and publications

NHLBI Health Information Center
P.O. Box 30105
Bethesda, MD 20824-0105
Tel 301-592-8573; Fax 301-592-8563
(Monday-Friday, 9 a.m. to 5 p.m. eastern time); TTY 240-629-3255
www.nhlbi.nih.gov/health/infoctr



Business

Become a partner of the National High Blood Pressure Education Program. Understand how health care costs and lost productivity impact the bottom line and promote awareness and action among customers and employees.



Food and hospitality industry

Promote healthy food choices and eating plans, and pave the way for reasonable portion sizes, reduced salt and sodium in processed foods, and nutritious options. Feature menu specials that help prevent and control high blood pressure. Create a signature recipe that's simple, delicious, and healthy for promotion to customers.

Civic organizations

Create physical activity programs for all age groups and create lower blood pressure challenges with neighboring communities. Mobilize the community to make blood pressure screening a regular activity.



Faith-based organizations

Make blood pressure screenings and education a regular activity. Serve healthy foods during events.

Enlist Now for this Vital Mission.



The outcome

We accomplish the goals of Healthy People 2010. Then;

- We save ourselves and future generations.
- We avert more than 665,000 cases of heart attack, stroke, and heart failure each year.
- We save billions of dollars each year.
- We improve the quality of life for countless Americans.
- We feel better, have more energy, and live longer.

Imagine how much illness could be prevented each year

By reducing cases of heart failure, stroke, and heart attack

Heart failure cases prevented	297,000
Strokes prevented	180,000
Heart attacks prevented	189,000

Imagine the dollars we could save each year

Potential cost savings in stroke prevention

Number of strokes prevented (out of 100 percent)	Potential savings (per year)
10 percent prevented	\$500 million
20 percent prevented	\$1 billion
30 percent prevented	\$1.5 billion

Potential cost savings in doctor visits

Number of high blood pressure related visits prevented (out of 100 percent)	Potential savings (per year)
10 percent prevented	\$478 million
20 percent prevented	\$956 million
30 percent prevented	\$1.4 billion

Based on 48 million doctor visits per year, with an average cost of \$99.58 per visit.

Most of the data used in this publication were obtained from the National Center for Health Statistics (NCHS), including the annual vital statistics of the United States, as well as from the peer-reviewed medical literature and data bases from NHLBI clinical trials. Population data came from the U.S. Bureau of the Census.

Specific data sources may be found in the "References appendix."



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institutes of Health
National Heart, Lung, and Blood Institute
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NIH Publication No. 04-5072 • March 2004
www.nhlbi.nih.gov

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