**What is high blood pressure?**

Blood pressure is the force or pressure of blood against your artery walls. When you have high blood pressure, your heart has to work harder so that it can send blood throughout your body. Hypertension is another word for high blood pressure.

High blood pressure usually has no symptoms that you can feel. But it increases your chances of having a stroke, heart attack, and kidney disease. The good news is that you can make changes that will lower your blood pressure. Making healthy choices like eating right and increasing your activity level, as well as taking medication to lower your blood pressure if you need to, will lessen your risk of having serious health problems.

**Definitions of blood pressure ranges**

To better understand blood pressure ranges, look at the chart above. The top number (119/79) of your blood pressure measurement represents the systolic pressure. This is the force of blood against your arteries when your heart is sending blood to your body. The lower number (119/79) is the diastolic pressure. This is the force of blood against your arteries while your heart relaxes between beats. Both numbers are important.

- Discuss your blood pressure goal with your doctor or other medical professional.
- Consider buying a blood pressure monitor. Take your blood pressure at home and keep a record of all readings.

**What causes high blood pressure?**

In most cases, doctors can’t point to the exact cause. But several things are known to raise blood pressure. These can include:

- being overweight
- drinking too much alcohol
- having a family history of high blood pressure
- eating too much salt (sodium)
- getting older

**What can you do to lower your blood pressure?**

- If you have high blood pressure, you may need to take medications to help lower your blood pressure. People with hypertension who take blood pressure medications daily are less likely to have a heart attack or stroke. It’s important to take your medication exactly as prescribed by your doctor.
- Quitting smoking will also lower your risk of heart attack and stroke. It is the single most important change you can make to improve your health and feel better.
- Enjoy regular physical activity for 30 to 60 minutes most days of the week.
- Maintain a healthy weight. If you are not at a healthy weight, losing 5 to 10 percent of your body weight by eating less fat and smaller portions can help reduce your risk.
- Manage your stress. Reducing your stress can help you make (and maintain) other lifestyle changes that can

<table>
<thead>
<tr>
<th>If you are:</th>
<th>Your blood pressure target is:</th>
<th>What you can do:</th>
</tr>
</thead>
<tbody>
<tr>
<td>An adult 18 - 59 years old</td>
<td>139/89 or below</td>
<td>- Take medications as directed</td>
</tr>
<tr>
<td>A person with diabetes</td>
<td></td>
<td>- Eat less sodium</td>
</tr>
<tr>
<td>A person with certain types of kidney problems</td>
<td></td>
<td>- Avoid drinking alcohol in excess</td>
</tr>
<tr>
<td>An adult 60 years of age or older without diabetes and without certain types of kidney problems</td>
<td>149/89 or below</td>
<td></td>
</tr>
</tbody>
</table>
help you lower your risk of heart disease. Choose a stress-reducing activity that you think you would enjoy, such as walking, dancing, Tai Chi, yoga, or meditation.

- **Make smart food choices**, including whole grains, vegetables, fruits, low-fat or nonfat milk products, lean meat, and beans.

- **Limit salt in your diet**. Research has shown that limiting sodium is important for good health. Read food labels and try not to eat out more than once or twice a week. Current recommendations are to keep sodium intake to no more than 2,300 mg per day.

- **Limit alcohol** to one drink per day if you are a woman and no more than two drinks per day if you are a man.

1 drink = 4-5 ounces of wine or 12 ounces of beer or 1½ ounces of liquor

### Healthy food choices for your high blood pressure

#### Grains
- Eat more whole grains, such as 100% whole wheat bread, oatmeal, bran cereals, brown rice, corn tortillas.
- Choose breads, cereals, and crackers that contain 3 or fewer grams of total fat per serving (check the food label).
- Limit high-fat baked goods or any containing trans fat (donuts, croissants, pastries, muffins).

#### Vegetables
- Eat a variety of vegetables at least twice a day.
- Add vegetables to soups, stews, casseroles, main dishes, and sandwiches.

#### Fruits
- Eat a variety of fruit at least twice a day.
- Fruit choices can be fresh, frozen, dried, or canned.
- Choose fruit for snacks and desserts.

#### Fats and oils
- Use less oil, mayonnaise, margarine, and salad dressings. When using oil, choose mono-unsaturated oils such as olive or canola, or most nut oils.
- Avoid hydrogenated fat (trans fat) found in most margarines and snack foods.
- Avoid fried foods.
- Try low-fat or nonfat salad dressings and spreads in place of regular products.
- Avoid saturated fats, such as lard, butter, bacon fat, cream cheese, sour cream, shortening, stick margarine, coconut or palm oil, and chocolate.
- Flavor foods with vinegar, lemon juice, salsa, and spices instead of fat or salt.

#### Milk and milk products
- Choose low-fat or nonfat milk and yogurt.
- Choose low-fat or nonfat cheese or cottage cheese in place of whole milk cheese.

#### Dried beans, peas, lentils, tofu, nuts, seeds
- Choose dried beans (pinto, garbanzo, kidney, peas) or tofu more often in place of meat.
- Dried beans, legumes, nuts, seeds are good sources of fiber, protein, and vitamins.
- Nuts, seeds, and natural peanut butter are healthy in small amounts.
- Add beans to salads and soups.
- Eat meatless meals three or more times a week. Try beans and rice, tofu stir fry with rice, whole bean burritos, or low-fat bean chili.

#### Meats, chicken, turkey, fish, and eggs
- Select lean/low-fat choices most often, such as fish, shellfish, skinless chicken or turkey, lean sandwich meats, and lean, trimmed red meats, such as sirloin, round, flank, or tenderloin.
- Limit portions to 4–6 ounces daily.
- Bake, broil, steam, or grill instead of frying.
- Avoid fatty or fried meats, sausages, hot dogs, and most lunch meats.

#### Snacks and sweets
- For snacks, try pretzels, air popped popcorn, rice cakes, low fat crackers, or fruits and vegetables instead of cookies, cakes, and chips.
- Good frozen dessert choices include non-fat frozen yogurt and sorbet.
- Avoid snacks high in hydrogenated fat (trans fat) found in most packaged cookies, crackers, and bakery items.
- Eat fat-free cookies, cakes, and frozen desserts in small amounts. Most of these are still high in calories, even though they are low in fat.

### Other Resources

Visit [kp.org/mydoctor](http://kp.org/mydoctor) to:
- View most lab results and check your preventive health reminders
- E-mail your doctor
- Use interactive online tools to help keep you and your family healthy

Contact your Kaiser Permanente Health Education Center or Department for books, videos, classes, and additional resources.

This information is not intended to diagnose or to take the place of medical advice or care you receive from your physician or other health care professional. If you have persistent health problems, or if you have additional questions, please consult with your doctor.

© 2004, The Permanente Medical Group, Inc. All rights reserved. Regional Health Education.
90337 (Revised 1/15) RL 7.1