your individual medical problems, preferences, and cost considerations. Your health care provider will review your medical condition thoroughly before prescribing one or more blood pressure medications. Be sure to tell your health care provider about all medications you take, including eye drops, over-the-counter, herbal and other remedies. Since there are several classes of medications available, different drugs can be tried if side effects occur. Be sure to tell your health care provider if you experience any side effects.

For more information on hypertension and diabetes visit:

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The Centers for Disease Control and Prevention
CDC Division of Diabetes Translation
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American Diabetes Association
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Hypertension, or high blood pressure, has many serious consequences, especially for people with diabetes. It is estimated that about 50 million people in the United States have hypertension. Hypertension is twice as common in people with diabetes. About 3 million people in the United States have both hypertension and diabetes. Both hypertension and diabetes are more common among older persons.

Usually, unless the blood pressure is very high, there are no symptoms of hypertension, so many people do not know they have it. Untreated hypertension has a high risk of causing complications such as heart attack, stroke, irregular heart rhythm, heart failure, and kidney disease. Older persons with diabetes have higher rates of death at a younger age, disability, hypertension, heart disease, and stroke. People with diabetes and hypertension have even a higher risk of developing these serious problems. Like diabetes, there is no cure for most types of hypertension—but it can be controlled. Lifestyle changes such as keeping to a low salt diet and exercising help control hypertension. Some people might also need to take medications.

Managing Hypertension and Diabetes in Older Adults

The AGS Foundation for Health in Aging builds a bridge between the research and practice of geriatrics health care professionals and the public. FHA advocates on behalf of older adults and their special needs through public education, clinical research, and public policy.

The AGS Foundation for Health in Aging
The AGS Foundation for Health in Aging (FHA) advocates on behalf of older adults and their special needs through public education, clinical research, and public policy.

The American Geriatrics Society
The American Geriatrics Society (AGS) is dedicated to improving the health and well-being of older adults. With a membership of over 6,000 health care professionals, the AGS has a long history of improving health care for older adults.

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Diagnosing Hypertension
Since hypertension usually has no symptoms, measuring blood pressure is the only way to diagnose it. Some people have high blood pressure only when it is measured in the health care provider’s office. This is known as “white coat hypertension,” meaning that their blood pressure is higher than usual due to the stress caused by the health care visit. For this reason, diagnosing actual high blood pressure depends on measuring it at least three different times, one-to-two weeks apart.

Blood pressure level is expressed by two numbers, such as 120/80 mmHg (millimeters of mercury). The ideal blood pressure for people with diabetes is 130/80 mmHg or lower. The top number is the systolic pressure (the pressure created when the heart muscle contracts). The bottom number is the diastolic pressure (when the heart relaxes between beats).
For older people, your health care provider might decide that a goal of 140/80 is better, at least at first. If you reach this goal and you are feeling well, your health care provider might then set a new goal of 130/80. For older persons with both diabetes and high blood pressure it could take two or more medications to bring the blood pressure into a safer range.

Blood pressure needs to be lowered slowly over time, especially in older people. Making a big change in your blood pressure in a short period of time can cause a person to feel tired or not well. It may also cause other side effects. When you are increasing your medications to get your blood pressure under control it is important that your health care provider monitors you carefully.

Complications of Diabetes and Hypertension

- Heart and Blood Vessel Disease.
  - (Cardiovascular Disease) People with both diabetes and hypertension have a much greater risk of developing cardiovascular problems. For people with both diseases, the risk of atherosclerosis and cardiovascular disease is higher. With atherosclerosis, the arteries become hardened by disease and fatty deposits can occur in the lining of the arteries. This leads to a much higher risk of stroke, heart attack, and kidney disease. Keeping a low fat, low salt diet and taking certain medications can reduce the fatty deposits in the wall of the arteries.
- Kidney Disease. About 20% of people who have had diabetes for more than 15 years have kidney disease (diabetic nephropathy). This risk goes up with age, with the duration of diabetes, and it is more common among African-Americans. Hypertension increases the chances of developing kidney disease. Appropriate blood pressure medications may delay kidney damage.
- Stroke (Cerebrovascular Disease). Stroke risk in persons with diabetes is two-to-four times higher than in those of similar age who do not have diabetes. Among those with poorly controlled blood pressure, the risk of stroke is six times higher than normal. For people with both diabetes and hypertension, their risk is even higher.
- Blindness. Diabetic retinopathy is a complication affecting the eyes that can result in blindness. People who have had diabetes for a long time are at a higher risk of developing this complication. People with hypertension and diabetes are also at increased risk for glaucoma and another eye disease called ischemic optic neuropathy.

How Can I Manage My Hypertension?

Managing hypertension is much like managing diabetes. The first line of treatment for hypertension are lifestyle changes, such as:
- Losing weight, if necessary, to maintain a healthy weight
- Eating a healthy, low-fat, low-sodium (salt) diet (sodium intake 2000–4000 mg daily)
- Exercising regularly, such as walking, for 30 minutes per day
- Limiting alcohol intake (no more than one drink per day for women, two drinks per day for men)
- Not smoking
- Reducing Stress

To help you eat right and lose weight, your health care provider can refer you to a diabetes educator, a diabetes management provider, or specialty physician. Annual diabetes self-management training is paid for under Medicare Part B.

Just as patients with diabetes monitor their blood glucose levels, managing hypertension can include home blood pressure monitoring. There are many devices available for home monitoring. Digital devices are easy to use and provide automatic blood pressure readings. Ask your health care provider to recommend a device if he or she feels that you need to do this. Your health care provider can also teach you about when and how to monitor your blood pressure at home. You should not measure your blood pressure within 30 minutes of eating, exercising, smoking, or during times of stress. There are also places in the community where you can go to check your blood pressure, such as at your pharmacy or drug store.

**Medications for Hypertension**

As with diabetes, if lifestyle changes do not lower blood pressure sufficiently, medications must be taken.

Over recent years there have been new medications developed that cause fewer side effects. There are different classes of blood pressure medications available that are appropriate for persons with diabetes. Medications that are effective in controlling hypertension include:
- **Diuretics** stimulate urination and reduce salt and water retention. Diuretics may be effective alone or they may be prescribed along with another antihypertensive medication.
- **Beta blockers** lower blood pressure and lower the heart rate, which reduces the amount of work the heart must do. These drugs are good for patients who have had a prior heart attack, angina (chest pain), and/or irregular heartbeats.
- **Angiotensin-Converting Enzyme Inhibitors** (ACE inhibitors) lower blood pressure, and help prevent or delay heart and kidney disease. These may cause cough and a rash in some people.
- **Angiotensin Receptor Blockers** (ARBs) have similar action to ACE inhibitors but do not cause cough.
- **Alpha-Andrenegic Blockers** relax the smooth muscle of blood vessel walls. These are helpful for men with diabetes, hypertension, and an enlarged prostate due to a benign prostatic hyperplasia (BPH).
- **Calcium Channel Blockers** relax blood vessels.

The choice of medication should be a decision that you make with your health care provider after taking into consideration