

MAYO CLINIC Q&amp;A

# STROKE CARE

When minutes matter: Know the risks, symptoms, treatment

MAYO CLINIC NEWS NETWORK (TNS)

**DEAR MAYO CLINIC:** Many in my social circle are now at the age when we're more likely to have a stroke. What symptoms should we watch for? And what happens if someone has a stroke?

**ANSWER:** If you're 55 or older, you're at greater risk of stroke. A stroke is a medical emergency. It happens when either the blood supply to the brain is blocked or a blood vessel in the brain leaks or bursts. In both cases, brain cells begin to die in minutes, so it can be life-changing to recognize the symptoms in your friends and family.

## STROKE RISKS

In addition to age, lifestyle factors ranging from being overweight, physical inactivity, heavy drinking, smoking or being exposed to secondhand smoke and using illegal drugs such as cocaine and methamphetamine can contribute to your stroke risk.

There also are medical conditions that increase your stroke risk, including:

- High blood pressure.
- High cholesterol.
- Diabetes.
- Obstructive sleep apnea.
- Cardiovascular disease.
- Personal or family history of stroke or heart attack.
- COVID-19 infection.
- Taking birth control pills or hormone therapy.

Men are at higher risk, as are African American and Hispanic people. Women are more likely to die of a stroke than men.

## TIME IS CRITICAL

The American Stroke and Heart Association has created an easy way to remember stroke symptoms: BE FAST.

Here's what each letter stands for:

- **B:** Balance or coordination. Sudden onset of walking like you're intoxicated, and not being able to grasp or turn a doorknob with one of your hands, are just two examples.
- **E:** Eye. Sudden onset of double vision, loss of vision in one or both eyes, or not being able to see the full visual field can indicate a stroke.
- **F:** Face. Sudden onset of one side of your face drooping. A limb on that same side also may become weak.
- **A:** Arm. Sudden onset of weakness or complete paralysis in one arm or leg. One way to test for arm

weakness is to have the person hold both arms straight out in front of them. Be concerned if one arm begins to drift downward on its own.

- **S:** Speech. Sudden onset of slurred speech, or trouble finding words or speaking gibberish.

- **T:** Time: It's estimated that a person loses 1.6 to 2 million brain cells every minute when blood supply to the brain is affected, so time is brain.

Because time is critical when a person has a stroke, call 911 for immediate care and transportation to an emergency department. However, if you're living in a rural area, too much time may elapse before help arrives. Give the person one tablet of aspirin, preferably a low-dose aspirin (about 81 mg), then safely drive them to the closest emergency department. Tell staff that you suspect a stroke.

If your medical facility doesn't have a comprehensive or primary stroke center, the healthcare team may connect via audio-video technology (telestroke) with a stroke neurologist who can examine the patient and recommend treatment options.

## TREATMENT

Treatments have advanced significantly in the past 30 years. The first breakthrough was the development of clot-busting medications that can dissolve the clot that's blocking

blood flow in the blood vessel. For the best outcomes, patients are carefully selected for this treatment.

For some patients, endovascular intervention is a newer and additional treatment option. It's typically performed within 24 hours of the onset of symptoms. A CT or MRI scan of the blood vessel can pinpoint the blood clot. Using guided imagery, a neurointerventionist threads a thin wire up through an artery in the groin to the brain, grasps the clot, removes it and opens the affected blood vessel.

In addition to treatments, other factors contribute to better recovery from stroke while patients are in the hospital. These include controlling their blood pressure, ensuring their blood sugar is neither too high nor too low, and maintaining a comfortable body temperature — not too hot or too cold. Their care team will develop a recovery plan for them once they return home.

Significant strides also have been made to ensure patients don't have another stroke. These include controlling blood pressure and diabetes and treating obstructive sleep apnea. Patients also typically are prescribed a blood thinner to reduce the chance of clots forming. New developments in these medications, such as apixaban, make them simpler to take without regular blood tests.

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ADOBE STOCK

## HEALTH CHECK



### Expert shares tips on how to prevent high blood pressure

MAYO CLINIC NEWS NETWORK (TNS)

High blood pressure, also known as hypertension, can occur at any age. Its prevalence in people in early to mid-adulthood has been rising globally. Bianca Bandarra, M.B.B.S., a general practitioner and executive health physician at Mayo Clinic Healthcare in London, describes lifestyle factors that can influence risk and explains why treating high blood pressure early matters.

High blood pressure is a common condition that affects the body's arteries. If you have high blood pressure, the force of blood pushing against the artery walls is consistently too high. The heart has to work harder to pump blood.

If untreated, high blood pressure raises the risk of heart attack, heart failure, stroke and other serious health problems, including kidney and eye problems, dementia, and metabolic syndrome, a group of conditions that increases the risk of diabetes.

High blood pressure can be a silent disease; people can have it without realizing it, Dr. Bandarra says.

"If high blood pressure isn't treated, it can damage blood vessels and organs over many years," she explains. "Because of that, we need to be proactive about prevention and early diagnosis. A simple blood pressure check is an important screening tool. People with conditions such as diabetes, kidney disease or a family history of hypertension may need more frequent monitoring."

If you have a family history of hypertension — for example, if one or both of your parents have it — it is sensible to be proactive and discuss with your healthcare team whether additional steps, such as monitoring your blood pressure at home, are appropriate.

While hypertension usually develops without symptoms, some people may notice warning signs if blood pressure becomes severely elevated, Dr. Bandarra says.

"Very high readings can sometimes be associated with headaches, especially in a hypertensive crisis," she says. "Some people may also feel pressure or discomfort behind their eyes."

Blurred vision, chest pain, palpitations, nosebleeds, shortness of breath and feeling tired and generally unwell can also occur, though these symptoms are not specific to hypertension and can have other causes. If you experience these symptoms, especially if they are new or severe, seek medical attention promptly, Dr. Bandarra says.

Several lifestyle factors can influence the risk of developing hypertension, Dr. Bandarra says.

Factors that can raise the risk include having obesity or being overweight, tobacco use, alcohol use, high stress levels, eating too much salt, not consuming enough potassium and not moving enough.

Factors that can lower the risk include exercising, achieving a healthy weight, following a heart-healthy diet with fruits, vegetables and whole grains, exercising regularly, managing stress, avoiding tobacco and alcohol, and getting enough sleep.

"Some people may do all the right things and still develop hypertension," Dr. Bandarra says. "That's because genetics also play a role. We can take steps to prevent it from getting worse."

Treatment typically includes following a healthy lifestyle — even for people whose hypertension has a genetic component — and medication. Tests such as blood tests, urine tests and an electrocardiogram may be needed to assess overall health and look for organ damage or related conditions.