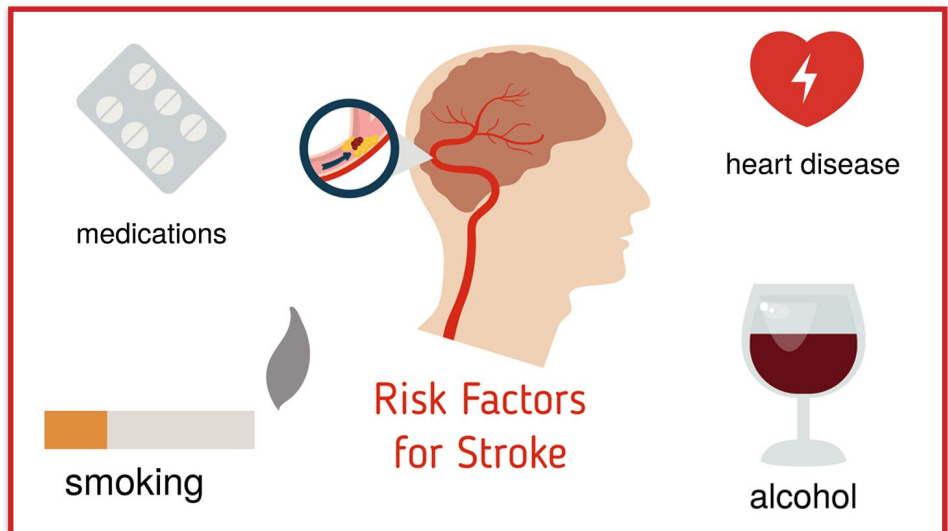


Stroke Risks

Knowing your risk factors for stroke can aid in preventing a stroke. Stroke is a heterogeneous syndrome (composed of different parts), and treatments depends on the specific type of stroke. We can categorize these stroke risk factors

as modifiable or non-modifiable. For instance, Age, sex, race/ethnicity are non-modifiable for both ischemic and hemorrhagic stroke, while hypertension, smoking, diet, and physical inactivity are among some of the more commonly

reported modifiable risk factors. More recently, however, other risk factors include inflammatory disorders infection, pollution, and cardiac atrial disorders independent of atrial fibrillation are all pathways to a stroke.



So lets look at some of these factors that are modifiable:

High blood pressure

High blood pressure is the number one risk factor for stroke as is is the leading cause of stroke. High blood pressure can cause blood clots or plaque (cholesterol and other fat-like substances) to break off artery walls and cause a stroke. The lower your blood pressure, the lower your risk of stroke. If you have been diagnosed with high blood pressure,

work with your doctor to create a plan to lower your pressure and lower your risk.

Smoking

It's a simple equation, smoking is a well-established risk factor for all types of stroke.

Smoking increases the risk of stroke by three to fourfold, and exposure to environmental smoke in the home increases the risk of stroke by 1.5 to twofold. With the increase of e-cigarettes and vaping, the younger population is now heavily suffering with heart disease that leads to stroke.



Diabetes

Diabetes is another direct cause of a stroke. Diabetes causes various small and large artery complications like plaque build up that can break off and cause a stroke. Risk for stroke is actually higher in the young population with diabetes. Lifestyle changes like food modification and increased physical activity can dramatically reduce your chances of a stroke if you have diabetes. Work with your doctor to help you achieve a lifestyle plan.

High Cholesterol

Cholesterol is a waxy substance that contributes to the buildup of deposits, known as plaques, within blood vessels. Just as a heart attack can occur when one of the coronary arteries becomes narrowed and blocked, a stroke or "brain attack,"



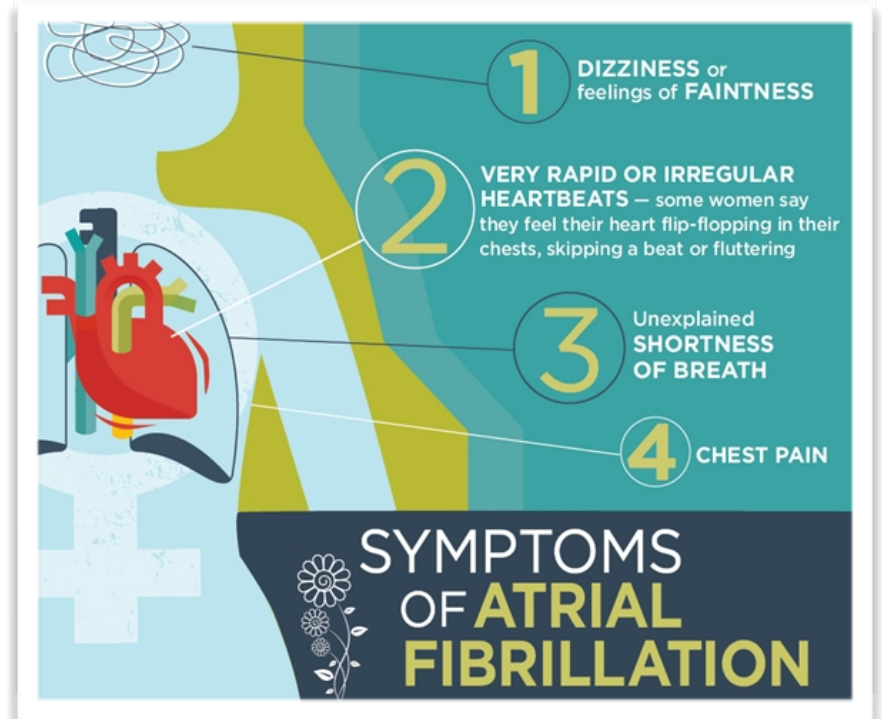
can result from the blockage of an artery that supplies oxygen to the brain. A healthy cholesterol level of less than 240 mg/dL, with LDL below 160 mg/dL and HDL above 40 mg/dL. People with cardiovascular risk factors are advised to aim for even better cholesterol levels to better protect against heart disease and stroke.

Illegal Drug Use

Drugs of abuse are frequently associated with stroke, especially in the young. Drugs of abuse increase the risk of both ischemic stroke and intracerebral hemorrhage. Stimulants such as amphetamines and cocaine cause the blood vessels in the brain to narrow and loose oxygen.

Atrial Fibrillation (A Fib)

Stroke patients with atrial fibrillation (AFib) have a poorer neurological outcome than stroke patients without AFib. When you have AFib, the normal rhythm of your heart becomes irregular, due to disorganized electrical signals. This causes the upper chambers of your heart, called the atria, to beat chaotically. This restricts blood from being efficiently pumped from your heart. When your heart can't pump out blood effectively, the blood can sometimes pool in your heart and form a blood clot.



Blood Disorders

Polycythemia vera (PV) is a blood disorder in which the body makes too many red blood cells. Because PV causes blood to thicken and slow, it can also increase the risk of developing blood clots, which can cause a stroke.

Sickle Cell Disease causes your body to make abnormally shaped red blood cells. Sickle Cell is most common amongst African American and Hispanic population. Twenty-four percent of sickle cell disease (SCD) patients have a stroke by the age of 45 years. Assessment by a hematologist and neurologist with shared discussion of the assessment and plan with help decrease the chances of stroke in patients with sickle cell.

Excessive Alcohol

Alcohol in excess (more than 2 drinks a day) can contribute to hypertension that we all know contributes directly to stroke. Alcohol can cause certain heart problems that also contribute to stroke (atrial fibrillation, cardiomyopathy for example). According to the Medical University of South Carolina, “The more alcohol that is consumed on the excessive side the greater the risk for the development of a stroke. This is true of both types of stroke (ischemic and hemorrhagic). However there is a caveat that if little or so called moderate amounts of alcohol are consumed there is



some protection against an ischemic stroke. What is moderate consumption? Less than 1 drink per day is associated with protection against an ischemic stroke compared to no drinks per day or more than 2 drinks per day. One to 2 drinks per day protects against ischemic stroke but not hemorrhagic. If one drinks 5 or more drinks per day it is high risk behavior with regard to both types of strokes (and other things as well!). There is evidence that women benefit more than men from moderate alcohol consumption.”

Oral Contraceptives

Oral contraceptives increase the risk of ischemic stroke but not hemorrhagic stroke. Women that have stroke risk factors such as high blood pressure and migraine headaches are at a higher risk than those without and should be discouraged from using oral contraceptives. Women are not always adequately screened for these stroke factors and must be aware and speak with their doctors to prevent the risk of stroke.

Let’s now look at some factors that are non-modifiable:

Age

Although stroke can affect all ages, the older you are, the greater the risk

Gender

Women general are at a higher risk of stroke than men.

Genetics / Race

Family members share genes, behaviors, lifestyles, and environments that can influence their health and their risk for



disease. Stroke risk can be higher in some families than in others factors likely play some role in high blood pressure, stroke, and other related conditions. African American, Hispanic, as well as Asian population have a higher risk of stroke.

Second Stroke

A person who has already had a stroke is at higher risk for a secondary stroke. Continued healthy recovery is essential for prevention.

Stroke prevention has generally focused on modifiable risk factors. Lifestyle and behavioral modification, such as dietary changes or smoking cessation, not only reduces stroke risk, but also reduces the risk of other cardiovascular diseases. Recent research into risk factors and genetics of stroke has not only identified those at risk for stroke but also identified ways to target at-risk populations for stroke prevention.