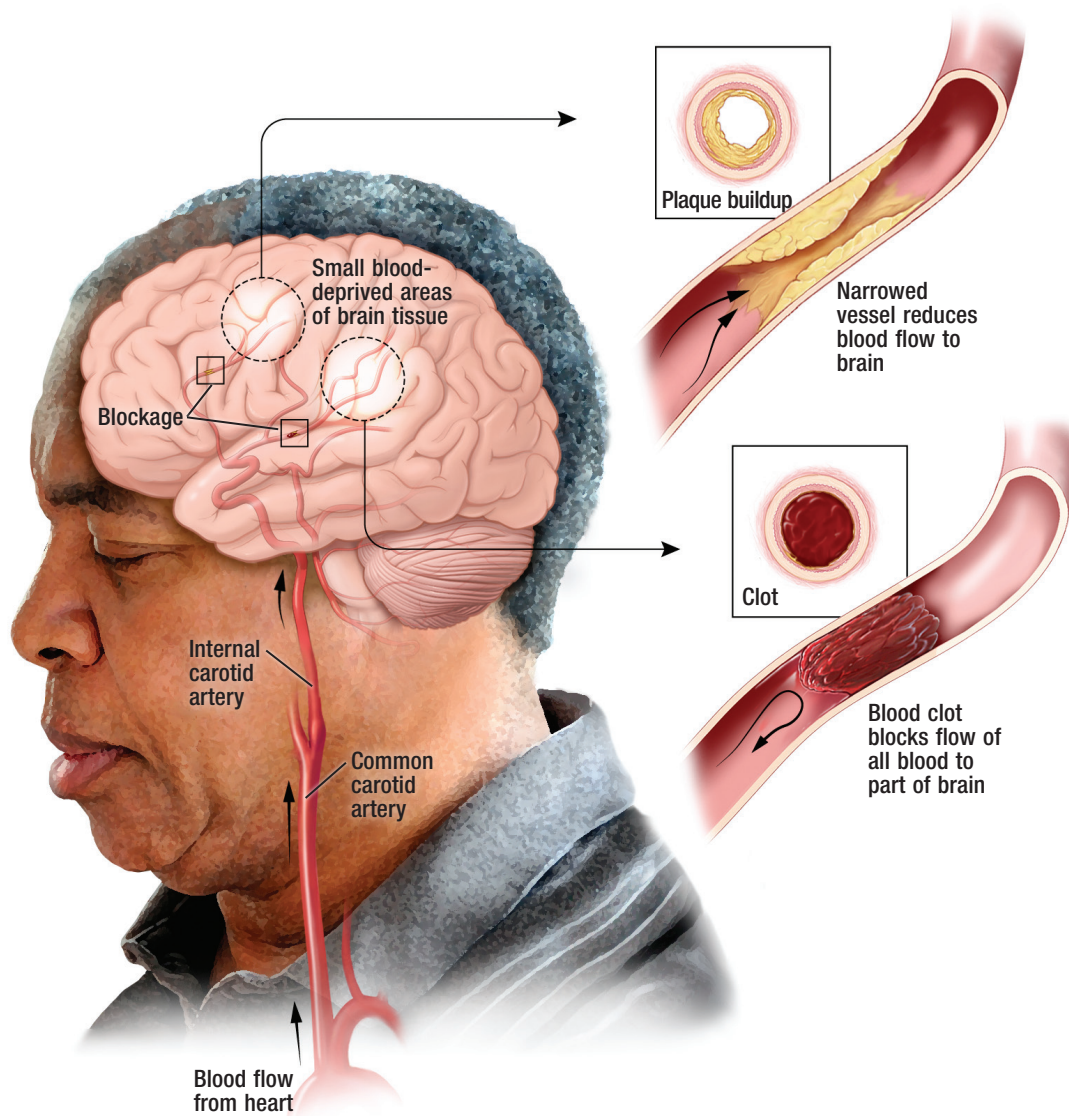


# Transient Ischemic Attack



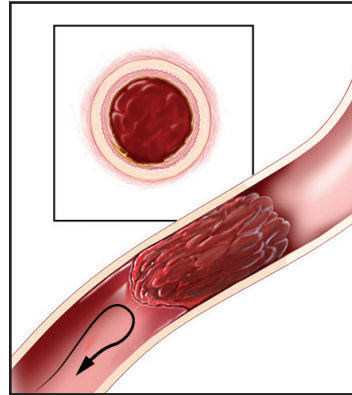
## Ministroke

A transient ischemic attack (TIA) is caused by a brief, temporary blockage of blood flow to part of the brain. A TIA is sometimes referred to as a ministroke because while its symptoms are similar to those of a stroke, they disappear and cause no permanent damage to brain tissue.

Although a TIA may appear to be less dangerous than a stroke, it is still a medical emergency. A TIA should be considered a warning of a potential future stroke. It is important to seek medical attention immediately, even if symptoms disappear, because lifesaving steps can be taken to avoid a major stroke.

## Seek Immediate Medical Attention Even if Symptoms Disappear

A TIA is temporary because the body uses naturally occurring clot dissolvers to break up the blockage and restore blood flow to the brain. Therefore, the brain suffers no lasting damage. Blood flow to the brain can be interrupted by a blood clot that forms in an artery of the brain or travels to the brain from another part of the body (for example, the heart or legs). It also can occur after a blood vessel in the brain or the carotid arteries (neck arteries leading to the brain) is injured or narrowed.



*A TIA may be caused by a blood clot in the brain or by the narrowing of a blood vessel in the brain, which can briefly interrupt the blood supply.*

### Risk Factors for TIA

The risk of TIA is greater after age 55 and in people with high blood pressure, high cholesterol, diabetes, obesity, poor leg circulation, heart disease, or a family history of stroke. Smoking, birth control pills, and heavy alcohol use also increase the risk of TIA or stroke. Many of these risks can be reduced through changes in lifestyle or medication. These are important ways to avoid a major stroke in the future.

### TIA Symptoms and Diagnosis

The symptoms of a TIA are similar to those seen when a stroke occurs; the difference is that TIA symptoms disappear within a few minutes or hours. Common symptoms are sudden numbness or weakness in the arm, leg, or face; dizziness or loss of balance when standing; problems speaking or understanding; confusion; difficulty swallowing; and vision loss in one or both eyes. A person witnessing someone experiencing a TIA might notice facial drooping, slurred speech, sleepiness, a blank stare, or confusion. A person with any of these symptoms needs medical help within 1 hour, even if the symptoms improve.

Even without symptoms, a doctor can often determine the cause of the TIA and decide whether immediate treatment is needed to prevent a full-blown stroke. ECGs and other tests can determine the presence of atrial fibrillation, an irregular heart rate that can cause blood clots. Tests such as CT scan or MRI of the brain, angiogram, echocardiogram, and carotid ultrasound can detect the presence of a blocked artery that may need surgery.

### Treatment of TIA

The goal of treatment is to prevent a future TIA or major stroke. The treatment of a TIA depends upon its cause. Antiplatelet drugs (including aspirin, dipyridamole, clopidogrel, or a combination) help blood flow more freely and keep clots from forming. In some patients, anticoagulants (blood thinners) such as warfarin and dabigatran are another option for preventing a stroke. If a carotid artery is blocked, balloon angioplasty with stent placement may be used to open it; another option is to remove the clot surgically (carotid endarterectomy).

A TIA is often called a *warning stroke*, and it is important for a patient who has had TIA symptoms to take the warning seriously. About one-third of people who experience a TIA will have a major stroke with permanent brain damage in the future. A person with TIA symptoms should go to the hospital within the first hour after symptom occurrence, even if the symptoms have disappeared completely. With the proper treatment, the chance of preventing a future stroke is excellent.