

Mini-stroke doubles risk of heart attack

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Patients who have suffered a "mini stroke" are at twice the risk of heart attack than the general population, according to research reported in *Stroke: Journal of the American Heart Association*.

These mini-strokes, called transient-ischemic attacks, or TIAs, occur when a blood clot temporarily blocks a blood vessel to the [brain](#). Although the symptoms are similar to a stroke, a TIA is shorter — usually lasting only minutes or a few hours — and does not cause long-term disability. A TIA, also called a "warning stroke," signals a high risk of a subsequent, larger stroke.

In this study, the risk of heart attack among TIA patients was about 1 percent per year, double that of people who had never had a TIA. This increased risk persisted for years and was highest among patients under age 60, who were 15 times more likely than non-TIA patients to have a heart attack.

"Physicians and other healthcare providers should be mindful of the increased risk for heart attack after TIA, just as they are about the increased occurrence of stroke," said Robert D. Brown Jr., M.D., M.P.H., principal investigator and chair of the neurology department at the Mayo Clinic in Rochester, Minn. "In the same way that we evaluate the patient to determine the cause of TIA and implement strategies to reduce the occurrence of stroke after a TIA, we should step back and consider whether a stress test or some other screening study for coronary-artery disease should also be performed after a TIA, in an attempt to lessen the occurrence of heart attack."

In the study, the average length of time between a first TIA and a heart attack was five years. Researchers also found that TIA patients who later had a heart attack were three times more likely than those who did not have a heart attack to die during study follow-up.

Factors that independently increased the risk of heart attack after TIA included:

- male gender;
- older age; and
- use of cholesterol-lowering medications (although patients using these drugs may have had more severe heart disease initially).

The study included 456 patients (average age 72, 43 percent men) diagnosed with a TIA between 1985 and 1994. Nearly two-thirds had high blood pressure, more than half smoked, and three-fourths were being treated with medication, such as aspirin, to prevent [blood clots](#). Average follow-up was 10 years.

Investigators used a medical-records database (Rochester Epidemiology Project) to retrospectively identify TIA patients in Rochester, Minn. They then cross-referenced this information with data on heart attacks occurring within this patient group through 2006.

Most heart attacks are caused by coronary-artery disease, which occurs when a blood clot blocks blood and oxygen flow in a blood vessel leading to the heart. Although coronary-artery disease is the primary cause of death among TIA patients, according to the study, limited data exist on the incidence of heart attack after TIA.

"In fact, coronary-artery disease is an even greater cause of death after transient-ischemic attack than stroke is, surprising as that may be," Brown said. "We should use the TIA event not only to provide a warning sign that patients are at heightened risk of stroke, but are also at increased risk of [heart attack](#), an event that will increase their risk of death after the TIA."

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TIA and [stroke](#) warning signs are sudden:

- Numbness or weakness of the face, arm or leg, often on only one side of the body
- Confusion and trouble speaking or understanding others
- Difficulty seeing
- Trouble walking, feelings of dizziness and loss of balance or coordination
- Severe headache of unknown cause

The presence of any of these signs warrants a call to 9-1-1 for immediate medical attention.

Provided by American Heart Association

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