

# Cerebrovascular disease risk factors

The risk factors for the cerebrovascular disease include:

High blood pressure

Smoking

Diabetes

High cholesterol

Family history of stroke

Age

Physical inactivity

Obesity

Alcohol consumption

Atrial fibrillation (irregular heart beat)

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[Hypertension](#) is the most important cause; it damages the blood vessel lining, and endothelium, exposing the underlying collagen where platelets aggregate to initiate a repairing process that is not always complete and perfect. Sustained hypertension permanently changes the architecture of the blood vessels making them narrow, stiff, deformed, uneven, and more vulnerable to fluctuations in blood pressure.

A fall in blood pressure during sleep can then lead to a marked reduction in blood flow in the narrowed blood vessels causing ischemic stroke in the morning. Conversely, a sudden rise in blood pressure due to excitation during the daytime can cause tearing of the blood vessels resulting in [intracranial hemorrhage](#). The cerebrovascular disease primarily affects people who are elderly or have a history of diabetes, smoking, or ischemic heart disease. The results of cerebrovascular disease can include a stroke, or occasionally a hemorrhagic stroke. Ischemia or other blood vessel dysfunctions can affect the person during a cerebrovascular incident.

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Higher circulating [PCSK9](#) levels were independently associated with an [intracranial artery stenosis \(ICAS\)](#) prevalence but not with a [cerebral small vessel disease \(CSVD\)](#) prevalence. The quantification of circulating PCSK9 levels may help to identify individuals at high risk for [cerebrovascular disease](#) in the general population <sup>1)</sup>.

<sup>1)</sup>

Kunimura A, Yano Y, Hisamatsu T, Torii S, Kondo K, Kadota A, Fujiyoshi A, Okamura T, Watanabe Y, Shiino A, Nozaki K, Ueshima H, Miura K; SESSA research group. Association between proprotein convertase subtilisin/kexin type 9 (PCSK9) and subclinical cerebrovascular disease in the community.

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