

Understanding the Link Between High Blood Pressure and Stroke

Each day that your blood pressure is too high, your chances of having a stroke are increased. Normal blood pressure is considered to be less than 120 over less than 80 millimeters of mercury (mmHg) or 120/80 mmHg. A stroke is a loss of brain function caused by a lack of blood to the brain. Stroke can result from the damage that ongoing high blood pressure causes in your vessels. If the affected vessel stops supplying blood to the brain, a stroke results.

Brenda Hartmann, NCH System Stroke Coordinator, explains that

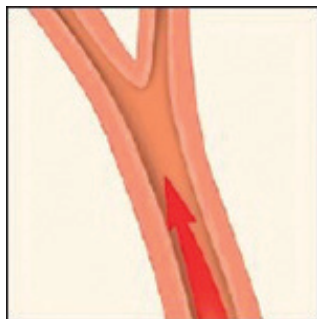
signs of stroke can differ among men and women. Strokes do not always hurt and often include one or more of the following coming on quickly:

- Sudden numbness or weakness in the face, arm or leg, especially on one side of the body.
- Sudden confusion, trouble speaking or difficulty understanding speech.
- Sudden trouble walking, dizziness, loss of balance or coordination.
- Sudden severe headache with no known cause.

Acting **F.A.S.T.** is key:

- F** – **Face:** Does one side of the face droop when smiling?
- A** – **Arms:** Close the eyes and raise both arms. Does one arm drift downward?
- S** – **Speech:** Say a phrase such as: “You can’t teach an old dog new tricks.” Is the speech slurred?
- T** – **Time:** Call 9-1-1 immediately if you observe any of these signs.

High Blood Pressure damages blood vessels



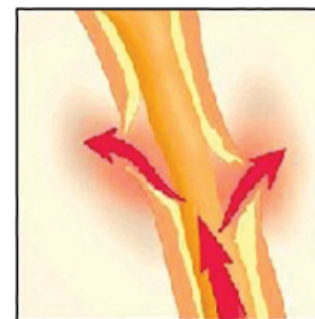
Vessels Thicken

When blood presses against a vessel wall with too much force, muscles in the wall lose their ability to stretch. This causes the wall to thicken, which narrows the vessel passage and reduces blood flow.



Clots form

When blood pressure is too high, it can damage blood vessel walls which results in scar tissue. Fat and cholesterol (**plaque**) collect in the damaged spots. Blood cells stick to the plaque, forming a mass called a **clot**. A clot can block blood flow in the vessel.



Vessels break

Sometimes blood flows with enough force to weaken a vessel wall. If the vessel is small or damaged, the wall can break. When this happens, blood leaks into nearby tissue and kills cells. Other cells may die because blood cannot reach them.

Source: The Staywell company retrieved from Krames

**For more information about the NCH Stroke Center
call Brenda Hartmann at (239) 624-4172**