A stroke occurs when part of the brain is deprived of blood. Brain cells need a constant blood supply to survive. There are two types of stroke: ischemic and hemorrhagic. Ischemic strokes are caused by a condition called ischemia, in which there is a blockage of an artery. These account for more than 80% of all strokes. If the immediate impairment resolves, the resulting condition is called a transient ischemic attack (TIA). TIA is still a cause for concern because those with this condition are at risk for a permanent stroke. Hemorrhagic strokes involve bleeding into the brain. They result from a ruptured blood vessel or an aneurysm. This type of stroke is less frequent.

The risk factors for stroke include high blood pressure, heart disease, arthrosclerosis (stiffness or hardening of the joints), a history of stroke or TIA, a family history of stroke or TIA, smoking, diabetes, and hyperhomocysteinemia (an abnormally high level of homocysteine in the blood). CT is the primary diagnostic method performed to diagnose a stroke. CT angiography (imaging of the blood vessels), MRI, MRI angiography and ultrasound are additional techniques that can assist in the diagnosis.

Treatment for strokes varies according to the type. The three main objectives when treating ischemic strokes are to:
1. Prevent more blockage from occurring.
2. Dissolve the blood clots in the artery.
3. Open narrowed arteries

In the case of an ischemic stroke, it is sometimes possible to dissolve the arterial blood clot in the brain by administering medication directly into the clot. This must be done within the first six hours after the stroke. The earlier the treatment can be instituted, the better the results. Another treatment is to use small catheters to break up and remove a blood clot from the artery. These newer treatments are less proven than traditional intravenous TPA (tissue plasminogen activator - a substance that breaks down blood clots) but initial results are promising. These treatments do, however, have an approximately 10% risk of complications that worsen the neurological condition of the patient.

Stroke treatment is performed by neuroradiologists and physician assistants in the Division of Diagnostic and Interventional Neuroradiology at the University of Rochester Medical Center / Strong Memorial Hospital.

If you have any questions or concerns, please call us at 585-275-5142.

A stroke is a medical emergency and should be treated right away. Call 911 immediately if you have any of these symptoms:
• Sudden onset of numbness or weakness in the face, arm and/or leg, especially when it is confined to one side of the body.
• Sudden confusion, difficulty speaking or understanding speech.
• Problems seeing including double vision, blurry vision or partial blindness in one or both eyes.
• Sudden onset dizziness, trouble walking, loss of balance or coordination.
• Sudden severe headache

yoUR imaging. yoUR location. yoUR Radiologist.