

**Q. What are the risk factors for stroke?**

A. The risk factors for stroke are high blood pressure, heart disease, atherosclerosis, a history of stroke or TIA, smoking, family history of stroke or TIA, diabetes, hyper-homocysteinemia.

**Q. How is a stroke diagnosed?**

A. CT is the prime diagnostic method performed in the emergency room. CT angiography, MRI and MRI angiography are other techniques that can help diagnosis stroke as well Ultrasound.

CT generates detailed pictures of the brain and can confirm the diagnosis of stroke and can tell whether the stroke was caused by hemorrhage into the brain or blockage of the artery.

Magnetic resonance imaging (MRI) can be used to create pictures of the brain and can also be used to create pictures of a blood vessel - so called MR angiogram (MRA).

Ultrasound uses a technique that is called Doppler ultrasound and creates pictures using the sound waves from the blood vessels. Ultrasound can be used to determine if there is stenosis of the blood vessels in the neck.

By these techniques the doctors can pinpoint the area of stroke in the brain as well as the area of blockage of the vessels.

**Directions to Strong Memorial Hospital**

**From the East:**

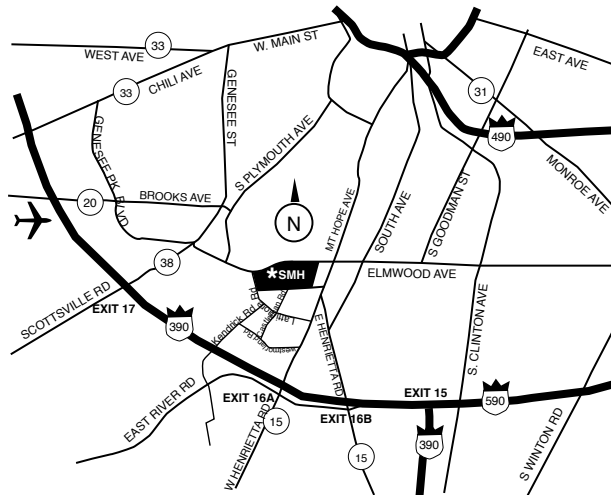
NYS Thruway (I-90) to Exit 46; I-390 North to Exit 16 (W. Henrietta Rd); right on W. Henrietta Rd. (Rte. 15); proceed approximately two miles to Elmwood Avenue; make a left on to Elmwood Ave; the hospital will be on your left hand side; parking garage will be on the left.

**From the West:**

NYS Thruway (I-90) to Exit 47; I-490 East to I-390 South to Exit 16A (E. River Rd.); right on East River Rd. and right on Kendrick Rd.; bear left onto Lattimore Rd.; one block to Crittenden Rd.; take right on Crittenden, parking garage will be on the left.

**From the South:**

I-390 North to Exit 16 (W. Henrietta Rd.); right on W. Henrietta Rd. (Rte. 15); proceed two miles and make a left on Elmwood Avenue; parking garage will be on the left.



**From Parking Garage to the Patient Information Desk (Main Lobby) to the Radiology Department (Ground Floor)**

Take the garage elevators to the 1<sup>st</sup> Floor. Follow the signs to the Main Lobby. Go through the Main Lobby passing the Information Desk. Follow the Red ( R ) ceiling tags to the Red Elevators. Take the Red elevators to the ground floor. Exiting towards the Red Corridor turn right and follow the Black ceiling tiles marked ( X ) to the Radiology reception area (G – 3300).

If you have a question that has not been addressed in this brochure, please call 585-275-4970.

**Radiologists**

- P-L Westesson, MD, PhD, DDS, Director, Diagnostic & Interventional Neuroradiology
- Sven Ekholm, MD, PhD, Attending Neuroradiologist
- Henry Z. Wang, MD, PhD, Attending Neuroradiologist

©08/05/04

# Acute Stroke, Interventional Thrombolysis

**Stroke is a medical emergency and should be treated immediately. Call 911 immediately if you have 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
- a severe unexplained headache that comes on suddenly

**STRONG HEALTH**

STRONG MEMORIAL HOSPITAL  
DEPARTMENT OF RADIOLOGY

Division of Diagnostic and  
Interventional Neuroradiology  
University of Rochester Medical Center  
601 Elmwood Avenue  
Rochester, NY 14642-8648  
Telephone: (585) 275-5268

## FREQUENTLY ASKED QUESTIONS REGARDING A STROKE

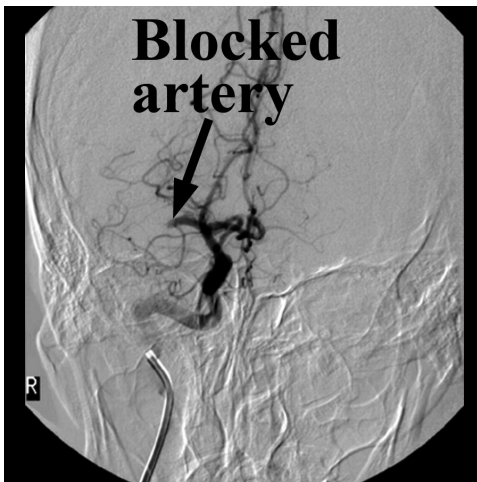
### Q. What is the cause of a stroke?

A. A stroke occurs when a part of the brain is deprived of blood supply. The brain cells need this blood supply constantly to survive. There are **two types** of stroke - one is due to **ischemia** when there is a blockage of the artery and the other is a **hemorrhagic** stroke in which there is bleeding into the brain.

**Ischemic stroke** accounts for more than 80% of all strokes. If the immediate impairment resolves it is called a transient ischemic attack (TIA). TIA should be taken as seriously as a stroke because they are indications that the patient is at risk for a permanent stroke.

The main cause of stroke and TIA is carotid artery disease. When there is substantial plaque build up in the carotid artery this can block the blood supply to the brain.

**Hemorrhagic strokes** are less frequent. They result from a ruptured blood vessel or an aneurysm.



### Q. What is the treatment for an ischemic stroke?

A. Treatment is of course dependent on the type of stroke. Most important is how quickly the patient arrives to the emergency department. The three principle interventional radiology treatments are:

- ◆ prevent more blockage from occurring
- ◆ dissolve the blood clots in the artery
- ◆ open narrowed arteries

### Q. What is the treatment to dissolve blood clots?

A. Immediately after a stroke it is sometimes possible to dissolve the blood clot in the artery in the brain by putting medication right into the clot. This must be done within the first six hours after a stroke. The earlier the treatment can be instituted the better is the effect. This is done by a interventional neuroradiologist who threads a thin tube (catheter) into the blood vessel in the brain starting in the groin. The technique is still considered experimental but initial results have promising. There is a 15-20% risk of hemorrhage.

