Every year, more women (425,000) than men (375,000) suffer a stroke. Why is this? Women live longer and stroke rates increase substantially with age. As an increasing proportion of women reach their eighth and ninth decades, an even greater number are expected to be affected by stroke.

Women are an average of four years older than men when they have a stroke. They also are more likely to have significant risk factors, such as atrial fibrillation (an irregular heart rhythm) and hypertension (high blood pressure). Treating these conditions can reduce significantly the risk of first or recurrent stroke. (See “You could be having a stroke” on page 11.)

If you are an African, Mexican or Native American woman, unfortunately your stroke risks are higher than your Caucasian counterparts.

Several studies of hormone therapy (HT) have focused on whether HT can prevent cardiovascular disease in postmenopausal women. While some debate continues, the general consensus is that HT is not beneficial in preventing stroke in postmenopausal women who are healthy or had a previous stroke. In women of child-bearing age, the use of oral contraceptives is associated with an increased stroke risk, particularly among smokers. This makes screening for stroke risk prior to the use of oral contraceptives extremely important.

The vast majority of strokes in both women and men are ischemic strokes (in which an artery supplying the brain is blocked, depriving it of oxygen and nutrients). However, women are at higher risk for the other major cause of stroke: rupture of an artery in the brain (hemorrhagic stroke). The trio of female gender, cigarette smoking and hypertension increases the risk of hemorrhagic stroke.

A transient ischemic attack (TIA) has all the symptoms of a stroke (see page 11), but the symptoms clear rapidly (therefore transient) with no permanent brain damage. However, a stroke with permanent brain damage often follows a TIA. Seeking prompt medical attention is essential, even if stroke symptoms resolve rapidly.

When an ischemic stroke or transient ischemic attack does happen, women and men experience similar symptoms (see page 11). They also seek help in comparable numbers, but unfortunately they often do not seek help fast enough. Therapy
to reverse the cause is only effective during the early hours of a stroke. Unfortunately, the total number of people seeking treatment for ischemic stroke within this “therapeutic window” remains low, often leading to devastating complications. This is why the Sarver Heart Center pursues continuous educational campaigns to educate and remind people about the signs and symptoms of stroke and the need to call 9-1-1 at the onset of symptoms. A “brain attack” is a medical emergency just like a “heart attack.”

**Stroke Care**

Hospital care for women and men with stroke is the same. For ischemic stroke, care includes clot-busting treatment to open the blocked artery to supply blood to the brain. Extensive research demonstrates that when stroke care is delivered according to best practices, patient outcomes improve. In March 2009, University Medical Center obtained Joint Commission Primary Stroke Center certification, the first to do so in Southern Arizona. This designation ensures a team approach to the delivery of quality stroke care from the time the patient enters the emergency department through the time of discharge.

The trip to the emergency department and the hospital stay are usually a brief period in the life of a stroke victim. Disability and reduced quality of life after stroke may affect a person for years. Unfortunately, both outcomes are consistently poorer in women than in men, but the reasons for this are not clear. Post-stroke depression also is greater in women than men. Clearly, more research is needed to examine how we can improve outcomes after stroke in women.

While the overall incidence, risk factors and outcomes for stroke are different in women than in men, attention to risk reduction and formalized stroke care has the potential to reduce these disparities. Clinicians and researchers at UMC’s Primary Stroke Center and the Sarver Heart Center are dedicated to reducing the number of strokes and improving outcomes after stroke…in women and men!

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**You could be having a stroke if you experience:**

- Sudden numbness or weakness of the face, arm or leg
- Sudden confusion, or trouble speaking or understanding
- Sudden trouble walking, dizziness, loss of balance or coordination
- Sudden severe headache with no known cause

**You are at greater risk of having a stroke if you:**

- Are age 55 or older
- Have had a stroke or TIA
- Have high blood pressure
- Smoke cigarettes
- Have diabetes
- Have heart or blood vessel disease
- Have high cholesterol
- Have atrial fibrillation
- Have sickle cell disease
- Have a high red blood cell count
- Take birth control medication