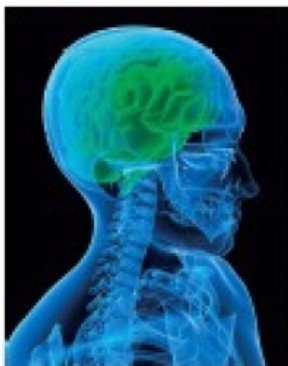


# Eisenhower Stroke Program



Quickly restoring the blood flow to the brain prevents further damage and reduces the likelihood of serious long-term disability.

**Stroke is the nation's number three killer (behind heart disease and cancer), and is one of the world's leading cause of physical disability. It is a medical emergency that can have catastrophic consequences to the patient, and requires quick, sophisticated and comprehensive care. Eisenhower Medical Center's Stroke Program is at the forefront of stroke treatment in the country.**

Stroke is an injury that occurs in the brain when diseased blood vessels or an injury to blood vessels blocks the supply of oxygen and other vital nutrients to the brain. There are two main types of stroke: those caused by a blockage in a blood vessel (ischemic) and those caused by bleeding within the brain (hemorrhagic).

There are approximately 700,000 strokes every year in the United States. Most of these are acute ischemic strokes. Early treatment of acute ischemic strokes by dissolving the clots can dramatically reduce potential damage to the brain. Identifying what type of stroke a patient has had, and treating it quickly, can have a dramatic effect on patient outcomes.

Part of the renowned Eisenhower Neuroscience Institute, Eisenhower's Stroke Program has received national recognition for its success in treating patients who have suffered a stroke. It has been designated a Certified Primary Stroke Center by The Joint Commission for Primary Stroke Centers, which has been awarded to only 600 hospitals in the United States. Eisenhower is the first hospital in Riverside and San Bernardino counties to earn the Commission's highest level of certification—the Gold Seal of Approval™.

After receiving The Joint Commission's designation, Eisenhower was next awarded the prestigious HealthGrades Stroke Care Excellence Award™ for 2010, which is given to the top ten percent of hospitals in the United States that specialize in stroke. The Eisenhower Stroke Center has received the HealthGrades award for stroke care for six consecutive years.

According to Eisenhower Neurologist Bishoy Labib, MD, who is one of the leaders of the team that spearheaded The Joint Commission certification process, Eisenhower participated in a rigorous application process to receive the Primary Stroke Center designation.

"We submitted two years of data on stroke admissions, treatment plans and patient outcomes," Dr. Labib explains. "We were able to demonstrate that Eisenhower patients received stroke treatment quickly, and that they get the best follow-up care available, including appropriate medication, rehabilitation, such as speech therapy and physical therapy, and education about the nature of stroke."

Dr. Labib says that Eisenhower's expertise in stroke care stems from a multidisciplinary approach. "We have state-of-the-art neuro-imaging techniques; we have dedicated stroke neurologists on call 24 hours a day; we have three Neurointerventionalists on staff," Dr. Labib shares. "We also have top Neurosurgeons and Vascular Neurosurgeons, and the region's best emergency room facility and critical care unit. The outcome for stroke patients at Eisenhower is better than at most academic institutions," explains Labib. "If a patient has a stroke, they need to come here." Eisenhower's success is also a result of a comprehensive stroke protocol. "We've developed a strong protocol here at

Eisenhower that starts the moment the patient arrives in the ER [emergency room]," Dr. Labib says. "When the paramedics have a patient with stroke symptoms, such as weakness on one side or difficulty with speech, loss of balance, loss of vision, they immediately let the ER know that a possible stroke patient is arriving."

According to Dr. Labib, the emergency room physician evaluates the patient, and then activates the stroke protocol by calling one of the Eisenhower Vascular Neurologists who are on call 24 hours a day, seven days a week. The ER team does a cardiac panel, blood count, an EKG (electrocardiogram) and a CT (computed tomography) scan of the patient's head and neck. The stroke Neurologist evaluates the tests, decides if more images — such as an angiogram or MRI (magnetic resonance imaging) — are needed, and then determines the type of stroke and the appropriate treatment.

"We say that 'time is brain' with stroke," Dr. Labib says, "Meaning the more quickly you act, the more damage you can prevent to a patient's brain. The evaluation and the imaging happen very, very quickly. With acute ischemic stroke, you have a threehour window in which you can dissolve the clot, restore blood flow to the brain, and have a positive outcome for the patient."

One of the special procedures utilized at Eisenhower is the powerful clot-dissolving drug tissue plasminogen activator (tPA), which can be an extremely effective treatment for acute ischemic stroke patients. Eisenhower Medical Center is the only hospital in the Coachella Valley to offer a highly specialized intra-arterial tPA procedure, which delivers tPA directly to the blood clot in the brain.

"We use a small catheter, insert it into the patient's artery, and then place the tip of the catheter directly on the clot. The catheter contains what we call 'the clot-busting drug,' which immediately dissolves the clot, and restores blood flow to the brain," explains Dr. Labib.

The effects of the procedure can be extraordinary. "I have seen patients who arrived at the hospital unable to speak, and unable to move their arms and legs. Then, we apply the tPA, and they start to improve right away," Dr. Labib says. "They can speak again, and the feeling comes back to their arms and legs." Quickly restoring the blood flow to the brain prevents further damage and reduces the likelihood of serious longterm disability.

The state-of-the-art imaging technology, such as the Philips Allura Xper, used by Eisenhower's Stroke Program can also detect conditions such as aneurysms and narrowed vessels allowing for treatment of these conditions before the stroke occurs.

## Controllable Risk Factors for Stroke

- High Blood Pressure
- Atrial Fibrillation
- High Cholesterol
- Tobacco Use
- Alcohol Use
- Heart disease
- Diabetes
- Transient Ischemic Attacks (TIAs)
- Obesity