Recovering from Stroke

Understanding Stroke and the Recovery Process

Dignity Health®
Northridge Hospital
Medical Center

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Welcome

Dignity Health – Northridge Hospital Medical Center is recognized by Los Angeles County Emergency Medical Services as a Comprehensive Stroke Center and certified by The Joint Commission as a Thrombectomy Capable Stroke Center. These certifications ensure that patients admitted with a diagnosis of stroke receive the best possible care based on recommendations from the American Stroke Association and the Brain Attack Coalition. Northridge Hospital offers a full range of state-of-the-art neuroscience services. If there is anything that our nurses, doctors, or other members of your health care team can do to help you recover, please feel free to ask.

THE JOINT COMMISSION
NATIONAL QUALITY APPROVAL

Certified by The Joint Commission as a Thrombectomy Capable Stroke Center

Know Your Risk Factors

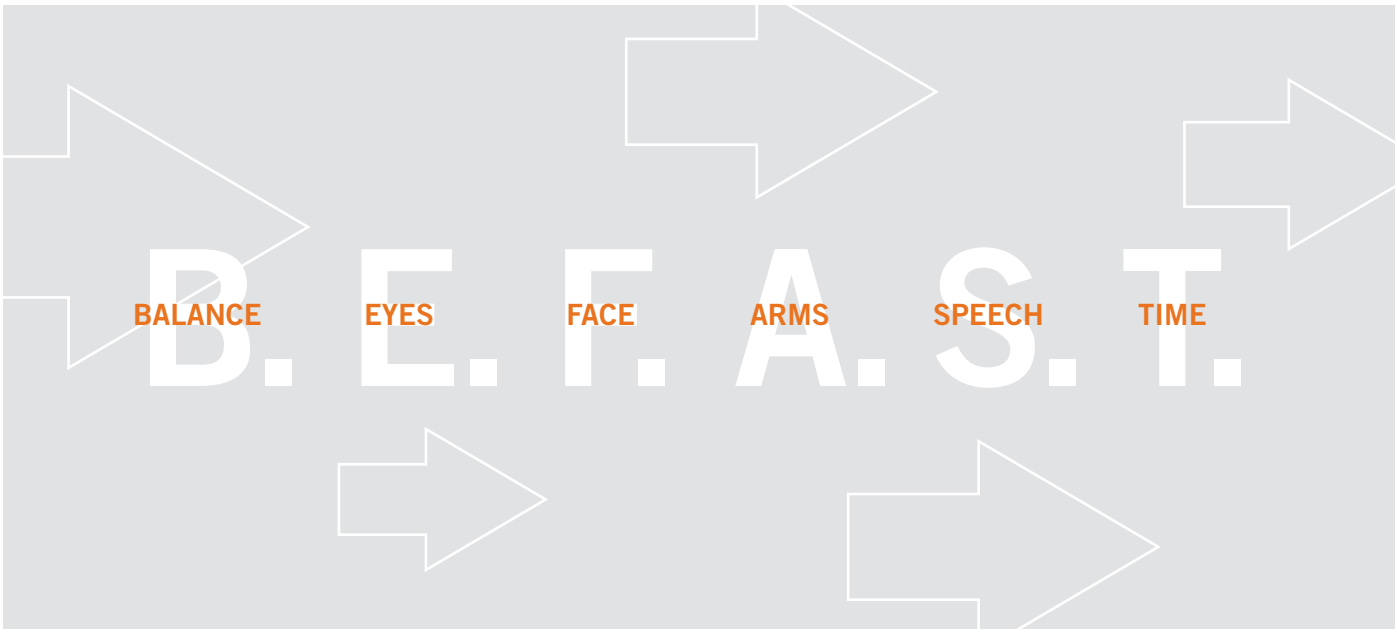
Non-Modifiable Risk Factors: Those You Cannot Change

- Increasing age
- Family history of heart disease or stroke
- Previous stroke or TIA
- Ethnicity: African American, Hispanic, Native American or Alaskan Natives have a higher incidence of stroke

Modifiable Risk Factors: Those You Are Able to Change

- High Blood Pressure
- Diabetes
- Atrial Fibrillation (irregular heart rhythm)
- High blood cholesterol
- Smoking
- Sleep Apnea
- Carotid or other artery disease
- Alcohol or illegal drug use
- Obesity or sedentary lifestyle

Talk with your care team to learn ways to manage the risk factors you are able to control. Lifestyle changes and medications often help reduce these modifiable risk factors. Management of these risk factors may help prevent future strokes.



Signs and Symptoms of Stroke

B – Balance: Is the person experiencing a sudden loss of balance or coordination?
E – Eyes: Is the person having a sudden change in vision or trouble seeing?
F – Face: Ask the person to smile. Does one side of the face droop?
A – Arms: Ask the person to raise both arms. Does one arm drift downward?
S – Speech: Ask the person to repeat a simple phrase. Is their speech slurred or strange?
T – Time: If you observe any of these signs, call 9-1-1 immediately.

Strokes are the fifth leading cause of death in America and the leading cause of disability. Stroke is a serious emergency. The faster you arrive to the hospital, the better chance of recovering from long-term disability.

What is a Stroke or "Brain Attack"?

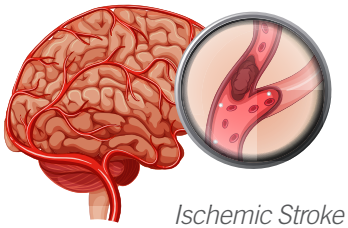
A stroke occurs when the blood flow to the brain is interrupted. The brain cells can no longer receive oxygen and nutrients, and will begin to die.

Types of Strokes

Ischemic Stroke: This is the most common type of stroke. It happens when an artery in the brain is blocked.

Hemorrhagic Stroke (Bleeding Stroke): A blood vessel in the brain bursts and spills blood into or around the brain. High blood pressure or aneurysms can make vessels weak enough to burst.

Transient Ischemic Attack (TIA): The artery within the brain or one that goes to the brain is blocked for a short time. The blood flow to that area of the brain slows down or stops. This is sometimes called a mini stroke. With a TIA, the artery becomes unblocked after a short time.



Ischemic Stroke

Initial Emergent Treatments

Tissue Plasminogen Activator (Alteplase®): The main treatment for acute ischemic stroke is the clot-busting drug Tissue Plasminogen Activator (tPA). This medication is given through an intravenous line (IV) and must be administered within 4.5 hours from the time that stroke symptoms began. Before it is administered, a CT scan is performed to detect the possibility of any bleeding within the brain. There are other criteria that must be met in order to provide this medication safely; a neurologist will determine if tPA should be given upon arrival to the Emergency Room.

Thrombectomy: A procedure where a physician removes a blood clot from a blocked artery in the brain in order to restore blood flow to or within the brain. A catheter is inserted through an artery in the wrist or groin then the blood clot is removed using a special retrieval and/or suction device. This treatment greatly reduces the chances of disability from stroke if performed within 24 hours from the onset of stroke symptoms.

Hemorrhagic Stroke Treatments: Medications to stop the bleeding in the brain can be given, as well as medications to lower the blood pressure or reduce swelling in the brain. In some instances, a neurosurgeon may perform surgery to drain the blood or reduce the pressure in the brain.

During Your Stay

Our goal during your hospitalization is to:

- Provide appropriate treatments to reduce disability
- Learn the cause of your stroke
- Reduce your risk of having another stroke
- Locate the part of the brain affected by your stroke
- Make sure you are able to swallow safely and to provide a safe way for you to receive medications and nutrition
- Assess your ability to perform activities of daily living independently
- Assess your ability to move and walk
- Assess your ability to talk and understand words
- Assess your risk for depression and anxiety
- Keep you safe from injury

Possible Tests You Will Have During Your Stay

Computerized Tomography (CT): A test used to create detailed images of the skull, the tissue inside of the brain, and the fluid-filled spaces inside the brain. This is often the first test done to see if the stroke symptoms are caused by bleeding in the brain.

Computerized Tomography Angiogram (CTA): A CTA images the blood vessels inside of the brain and in the neck. It detects blockages or blood clots inside the larger vessels in these areas.

Diagnostic Cerebral Angiogram: This test provides detailed images of the blood vessels inside of the head and neck. A physician inserts a small catheter through an artery in the groin or wrist and then injects a contrast dye. Through X-ray pictures called fluoroscopy, the vessels can be evaluated. During this test, decreased blood flow from a clot or narrowing can be identified as well as any other structural abnormalities within the head and neck.

Magnetic Resonance Imaging (MRI): Strong magnetic and radio waves are used to create pictures inside the brain and surrounding nerve tissues. The MRI of the brain can show injuries much sooner than the CT scan.

Magnetic Resonance Angiography (MRA): Strong magnetic and radio waves are used to create pictures inside the blood vessels inside of the brain.

Carotid Ultrasound: A test that uses sound waves to look for fatty deposits causing narrowing or blockages in the vessels in your neck that carry blood to your brain.

Echocardiogram: A type of ultrasound using sound waves to produce moving pictures of your heart. This test looks at the size of the heart, and how the blood flows and pumps. It also identifies structural deformities within the heart and looks for blood clots within the heart. This test is performed by applying an ultrasound probe to the chest. In some cases, it can also be done internally by inserting a small probe into the esophagus (transesophageal echocardiogram or TEE). A TEE uses the same ultrasound waves as the echocardiogram to examine the heart, however in some cases clearer pictures of the heart are needed, so a TEE is recommended. If A TEE is recommended, the patient will be sedated during the procedure to reduce discomfort, stress, and anxiety.

(continued)

Possible Tests You Will Have During Your Stay (continued)

Hemoglobin A1c: This is a blood test that averages the level of your blood sugar over a two- to three-month period. It can be used to diagnose diabetes, or to see if people with diabetes need to adjust their diabetes medicines so that they can stay within their desired blood sugar ranges.

Lipid Panel: A blood test that measures the amount of lipids (fats) in your blood. Four types of lipids are measured:

- **Total Cholesterol:** the sum of your blood's cholesterol.
- **High Density Lipoprotein (HDL):** HDL is known as the good cholesterol; it helps keep the arteries open in the body so the blood can flow freely.
- **Low-Density Lipoprotein (LDL):** LDL is known as the bad cholesterol; too much can cause fatty deposit and plaque in your arteries which reduces blood flow, causing heart attack or stroke.
- **Triglycerides:** Your body converts the calories it doesn't need into triglycerides after eating. Triglycerides are stored in the fat cells. High triglyceride levels are associated with eating too many sweets or drinking too much alcohol, smoking, being sedentary, or having diabetes with high blood sugar levels.

Who Are Your Stroke Caregivers?

Neurologist: A doctor specializing in neurology (the central nervous system) who treats disorders that affect the brain, the spinal cord, and the nerves. Neurologists recommend tests, treatments, therapies, and medications. They also plan with the patient and the care team how to prevent future strokes.

Neuro-Interventionalist: A doctor who uses imagery to guide access to the brain's vessels and structures in order to treat a stroke.

Neurosurgeon: A doctor who specializes in the diagnosis and surgical treatment of the nervous system and brain.

Attending Physician: Establishes a coordinated plan of care, through diagnostic and therapeutic interventions.

Stroke Coordinator/Manager: A registered nurse leader who develops, meets, and sustains the requirements needed to build and maintain stroke center certification. Manages process and quality improvement and uses data to improve outcome. Develops protocols based on evidence-based clinical practice guidelines.

Stroke Nurse Practitioner: Nurses who are trained and qualified to examine, diagnose, and treat medical conditions affecting the brain and vascular system.

Physical Therapist: Provides treatment for patients who have a physical impairment or dysfunction through therapeutic exercise and movement.

Occupational Therapist: Enhances an individual's ability to increase their functional independence in day-to-day living. A variety of treatment techniques are implemented, including adaptive equipment, self-care retraining, cognitive, and therapeutic exercises.

Speech Therapist: Assists individuals who have difficulty speaking, swallowing, or who have cognitive impairments that may be adversely impacting their everyday lives.

Care Coordinator/Social Worker: Is key to assist you and your family to coordinate your care during your stay, as well as to provide emotional support and explore your needs preparing for discharge, housing, financial assistance, home care support, community referrals, and resources.

Pharmacist: A healthcare professional licensed in pharmacy. Duties include dispensing drugs that are prescribed, monitoring drug interactions, and counseling patients regarding the effects of proper drug usage.

Bedside Nurse: Registered nurses assess, monitor, and care for you during your hospital stay. They advocate for your care with all team members. The nurses will teach you how to care for yourself and how to prevent another stroke.

Dietician: Plans a healthy diet that is specialized to your needs.

Nursing Assistants and Techs: Trained assistants take vital signs and assist you with hygiene and toileting. They alert the nurse with important information about your status.

Preparing to Leave the Hospital

Living at Home After Stroke

Most stroke survivors are able to return home and resume many of the activities they did before stroke. Leaving the hospital may seem scary at first because so many things have changed. The hospital staff can help prepare you to go home or to another setting that can better meet your needs. Going home depends on the following four factors:

- **Ability to care for yourself:** Rehabilitation should be focused on being able to perform daily activities such as eating, dressing, and bathing.
- **Ability to follow medical advice:** This is a critical step in recovery and preventing another stroke or other complications after stroke. It's important to take medication as prescribed and follow medical advice.
- **Support of a caregiver:** Someone should be available who is willing and able to help when needed.
- **Ability to move around and communicate:** If stroke survivors aren't independent in these areas, they may be at risk in an emergency or feel isolated.

What If I Can't Go Home?

Your doctor may advise a move from the hospital to another type of facility that can meet your needs for a short time or permanently. It's important that the living place you choose is safe and supports your continued recovery. Your social worker and case manager at the hospital can give you information about facilities that might work for you. Possibilities include:

- **Acute Rehabilitation:** Assists patients in regaining their highest level of function in communication, self-care, mobility, and emotional well-being. Most patients return home and are able to lead a relatively independent lifestyle. The program's interdisciplinary approach places special attention on regaining abilities rather than on the disability. Patients and their families actively participate in planning and implementing a comprehensive treatment plan with specific goals. Attainment of these goals is measured throughout the inpatient rehabilitation program. Outpatient therapy services are available after discharge. Patient and family training are designed to meet each patient's needs. Families learn to assist with certain portions of care in order for the patient to be as prepared as possible for discharge. At the time of discharge, the patient and family should have a clear understanding of physical and cognitive abilities and limitations, medications, and personal hygiene, skin care, and equipment needs.
- **Skilled Nursing Facility:** Are for people who need more than usual medical attention, continued therapy, and more than a caregiver can provide at home. This type of facility provides around-the-clock care.
- **Intermediate Care Facility:** An option for people who don't have serious medical problems and can manage some level of self-care.
- **Assisted Living:** An option for people who can live somewhat independently but need some assistance with things like meals, medication, and housekeeping.

Home Safety Tips

Living at home successfully also depends on how well your home can be adapted to meet your needs.

Safety: Take a look around your home and remove anything that might be dangerous. This might be as simple as taking up throw rugs, testing the temperature of bath water, or wearing rubber-soled shoes. Or it may be more involved, like installing handrails in your bathroom or other areas.

Accessibility: You need to be able to move freely within the house. Changes can be as simple as moving the furniture or as involved as building a ramp.

Independence: Your home should be modified so you can be as independent as possible. Often this means adding special equipment like grab bars or transfer benches.

Community Resources After Discharge

Northridge Hospital Support Groups

Through the compassionate support of others going through similar situations, these groups provide mutual aid, encouragement, and education in a comfortable and safe setting.

- **Stroke Support Group for Survivors and Caregivers**
  Wednesdays, 3 to 4:15 p.m.
  Call 818.885.8500, ext. 3656 for additional information, registration, and location
- **Brain Injury Support Group for Survivors and Caregivers**
  Meets once a week on Tuesdays, 2 to 3:30 p.m.
  Call 818.885.8500, ext. 3637 for additional information, registration, and location
- **Grief Support Group**
  An 8-week Healing Journey meets on select Fridays, 2:30 to 4 p.m.
  Call 818.885.8500, ext. 4560 for additional information, registration, and location

Other Resources

The following organizations can be contacted by phone or online and serve as additional resources for education and support.

- **Academy of Nutrition and Dietetics**
  eatright.org
  Patients seeking the services of a registered dietitian can use the site's Find an Expert feature. The website contains a wealth of nutrition information, featuring content ranging from articles, tips, videos and recipes.
- **National Aphasia Association**
  naa@aphasia.org
  212.267.2814
  800.922.4NAA (4622)
- **Family Caregiver Alliance**
  caregiver.org
  800.445.8106
- **American Stroke Association**
  strokeassociation.org
  888.4.STROKE
- **Meals On Wheels**
  mealsonwheelsamerica.org
  888.998.6325

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