Dear Stroke Survivor,

We have dedicated this Stroke Care Survival Guide to you as a stroke survivor. Use this book to support your journey towards stroke recovery and lower your chance of having another stroke.

Our hope is that it will assist you in maintaining an enjoyable quality of life… let’s make it a great one!

From your SCL Health Stroke Care Team

_SCL Health Neurological Services Mission Statement:_

_Setting the standard of excellence in stroke care through prevention, treatment and education within the communities we serve_

We are committed to:

- Providing RAPID treatment to enhance the quality of life for our patients
- Fostering healing and health
- Providing stroke survivors, their families and caregivers resources for education and support
- Treating those we serve with respect and dignity
- Increasing public awareness of stroke

**Stroke Facts**

- Up to 80 percent of strokes are preventable
- 780,000 strokes occur each year
- Stroke is a cause of long-term disability in the United States

**Remember the Signs of a Stoke**

_F_ - Face is uneven  
_A_ - Arm is weak  
_S_ - Speech is strange  
_T_ - Time to call 911
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# Healthcare Contacts

<table>
<thead>
<tr>
<th>Name &amp; Address</th>
<th>Phone number</th>
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</thead>
<tbody>
<tr>
<td>Primary Doctor</td>
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<tr>
<td>Neurologist</td>
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<tr>
<td>Neurosurgeon</td>
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<td>Cardiologist</td>
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<td>Psychologist</td>
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<td>Pharmacist</td>
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<td>Physical Therapist</td>
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<td>Occupational Therapist</td>
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<tr>
<td>Dietitian</td>
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<td>Speech Pathologist</td>
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<td>Homecare Agency</td>
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<td><strong>Other:</strong></td>
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</table>
Health History

Medical

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Surgical History (recent)

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Smoking history: ____packs per day ____years, OR ________quit date
Alcohol consumption: __________drinks per week
Medication Management

It is important to keep an updated list of your medications with you at all times. The following chart can be used to help you keep track of your medications. For more information on medications, please see page 21.

<table>
<thead>
<tr>
<th>Medication</th>
<th>Dose</th>
<th>Frequency</th>
<th>Special Instructions</th>
<th>Prescriber</th>
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</table>
## Blood Pressure (BP) Tracker

**INSTRUCTIONS:**

- Take your pressure at the same time each day or as your healthcare professional recommends.

- Sit with your back straight and supported and your feet flat on the floor.

- Your arm should be supported on a flat surface with the upper arm at heart level.

- Make sure the middle of the cuff is placed directly over your brachial artery. Check your monitor’s instructions, or have your healthcare provider show you how.

- Each time you measure, take two or three readings, one minute apart, and record all the results.

My blood pressure target goal is: ______/______ mm Hg

<table>
<thead>
<tr>
<th>Date/Time</th>
<th>Reading 1</th>
<th>Reading 2</th>
<th>Reading 3</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>BP</td>
<td>Heart Rate</td>
<td>BP</td>
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# Glucose Tracker

**Sunday**  
**Blood Glucose**

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<tr>
<th>Time:</th>
<th>MG/DL:</th>
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**Monday**  
**Blood Glucose**

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<th>Time:</th>
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**Tuesday**  
**Blood Glucose**

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<th>Time:</th>
<th>MG/DL:</th>
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**Wednesday**  
**Blood Glucose**

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<th>Time:</th>
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**Thursday**  
**Blood Glucose**

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<th>Time:</th>
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**Friday**  
**Blood Glucose**

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<th>Time:</th>
<th>MG/DL:</th>
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**Saturday**  
**Blood Glucose**

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<th>Time:</th>
<th>MG/DL:</th>
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HgA1C _____________
# Cholesterol Tracker

<table>
<thead>
<tr>
<th></th>
<th>Date:</th>
<th>Date:</th>
<th>Date:</th>
<th>Date:</th>
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<tbody>
<tr>
<td>Total blood cholesterol level</td>
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<tr>
<td>HDL cholesterol level</td>
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<tr>
<td>LDL cholesterol level</td>
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<td></td>
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<td></td>
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<tr>
<td>Triglyceride level</td>
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</tbody>
</table>

**LDL Cholesterol Levels**

<table>
<thead>
<tr>
<th>Level</th>
<th>Cholesterol Level (mg/dL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 100 mg/dL</td>
<td>Optimal</td>
</tr>
<tr>
<td>100 to 129 mg/dL</td>
<td>Near Optimal/Above Optimal</td>
</tr>
<tr>
<td>130 to 159 mg/dL</td>
<td>Borderline High</td>
</tr>
<tr>
<td>160 to 189 mg/dL</td>
<td>High</td>
</tr>
<tr>
<td>190 mg/dL and above</td>
<td>Very High</td>
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</tbody>
</table>

**Tools**

**Cholesterol Tracker**

**BMI Goal**

*To calculate your BMI, visit [bmicalculator.net](http://bmicalculator.net)*
Understanding Your Stroke

Functional Anatomy Quick Look Guide

**Frontal Lobe – Key Characteristics**
- Attention
- Motivation
- Emotional, social, sexual control
- Verbal expression
- Judgment
- Spontaneity
- Problem solving
- Decision making
- Expressive language
- Motor integration
- Voluntary movement
- Sequencing

**Temporal Lobe – Key Characteristics**
- Short-term memory
- Receptive language
- Language comprehension
- Musical awareness
- Selective attention
- Object categorization
- Locating objects
- Face recognition
- Behavior (aggressive)

**Parietal Lobe – Key Characteristics**
- Tactile perception (touch)
- Spatial orientation
- Awareness of body parts
- Academic skills
- Object naming
- Right/left organization
- Visual attention
- Eye-hand coordination

**Occipital Lobe – Key Characteristics**
- Visual perception
- Visual processing
- Reading (the perception and recognition of printed words)

**Cerebellum – Key Characteristics**
- Coordination of voluntary movement
- Gross and fine motor coordination
- Postural control
- Balance and equilibrium
- Eye movement

**Brain Stem – Key Characteristics**
- Autonomic nervous system (heart rate, breathing, temperature, etc.)
- Level of alertness
- Arousal and sleep regulation
- Swallowing food and fluid
- Balance and movement
Understanding Your Stroke

Stroke and TIA (mini-stroke)

A stroke occurs when the brain’s blood supply is reduced or stopped. A stroke may be called a cerebral vascular accident or CVA. There are two types of strokes, ischemic and hemorrhagic.

Ischemic Stroke

Ischemic strokes are the most common type of stroke and occur when blood vessels to the brain become narrowed or clogged. A blood vessel in or leading to the brain may become severely narrowed due to atherosclerosis. Atherosclerosis is a condition in which fatty deposits build up in blood vessels and reduce the flow of blood.

Clots can develop at the stroke site (thrombus) or can develop in another part of the body and travel to the brain (embolic). Clots that travel through the blood stream to the brain most commonly form in the heart and large vessels of the chest and neck. Atrial fibrillation is a common cause of clot formation in the heart.

Transient Ischemic Attack (TIA)

TIA, also known as a “mini stroke,” is caused by a clot that blocks an artery for a short time. The difference between a stroke and TIA is that with TIA the blockage is temporary. Symptoms occur rapidly and last a short time. Unlike a stroke, when a TIA is over, there is minimal injury to the brain. About 15 percent of strokes are preceded by a TIA. TIA is a serious warning sign of a stroke and should not be ignored—call 911 immediately.
**Hemorrhagic Stroke**

Hemorrhagic strokes occur when a weak blood vessel ruptures and bleeds into the surrounding brain tissue. Most weakened blood vessels begin to leak due to high blood pressure. Two types of weakened blood vessels that cause hemorrhagic strokes are aneurysms and arteriovenous malformations.
What Controllable Risk Factors Apply to You?

Risk factors are personal traits and lifestyle habits that increase your risk of heart disease, heart attack or stroke.

- High blood pressure
- Tobacco use
- Diabetes mellitus
- Carotid or other artery disease
- Atrial fibrillation
- Heart disease such as heart failure, cardiomyopathy, heart valve disease
- Sickle cell disease
- High blood cholesterol
- Diet high in saturated fat, trans fat, sodium, cholesterol
- Physical inactivity and obesity
- Alcohol abuse
- Drug abuse

Check the lifestyle changes that could reduce your risk of having a stroke. A member of your healthcare team can assist you in developing a plan.

- Don’t smoke
- Maintain a healthy weight
- Engage in regular physical activity.
- Eat a healthy diet
- Manage blood pressure
- Take charge of cholesterol
- Keep blood sugar at healthy levels

__________________________________________________________________

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__________________________________________________________________
Uncontrollable Risk Factors

Uncontrollable risk factors cannot be changed but increase the likelihood of having a stroke.

Age

Stroke affects people of all ages. But the older you are, the greater our stroke risk. The chance of having a stroke approximately doubles for each decade of life after age 55.

Family History and Race

Your stroke risk is greater if a parent, grandparent, sister or brother has had a stroke. American Indian/Alaskan Native persons have the highest prevalence of stroke, followed by persons of multiple races. African-Americans have twice the prevalence of stroke when compared to Caucasians because they have high blood pressure more often.

Gender

Stroke is more common in men than in women. However, more than half of total stroke deaths occur in women. Thus, women appear to suffer from a higher number of life-threatening strokes. At all ages, more women than men die of stroke. Use of birth control pills and pregnancy are additional risk factors for women.

Prior Stroke, Transient Ischemic Attack or Heart Attack

A person who has had a stroke is at higher risk of having another one. A person who has had one or more TIAs is almost 10 times more likely to have a stroke when compared to someone of the same age and sex who hasn’t. Recognizing and treating TIAs can reduce your risk of a major stroke.
Understanding Your Stroke

Controllable Risk Factors

Controllable risk factors increase the likelihood of stroke but can be changed, treated or controlled.

**High Blood Pressure**

High blood pressure is the leading cause of stroke and the most important controllable risk factor for stroke. Know your blood pressure and have it checked at least twice a year. Normal blood pressure levels have been defined as less than 120/80. If it is consistently 140/90 or above, it’s high. If you have high blood pressure, talk to your doctor about how to control it.

**Tobacco Use**

Tobacco use refers to chewing tobacco and cigarette, cigar or pipe smoking. The nicotine and carbon monoxide in cigarette smoke damages blood vessels in many ways. People that smoke are twice as likely to develop coronary artery disease. Smoking four cigarettes a day increases the risk of heart disease by 50 percent. In addition, the use of oral contraceptives combined with cigarette smoking greatly increases stroke risk. Do not smoke cigarettes or use other forms of tobacco.

**Diabetes Mellitus**

Having diabetes increases our risk of stroke because it can cause disease of blood vessels in the brain. Many people with diabetes also have high blood pressure, high blood cholesterol and are overweight. This increases the risk of stroke even more. Work with your doctor to manage diabetes and reduce other risk factors.

**Carotid or Other Artery Disease**

The carotid arteries in your neck supply blood to your brain. A carotid artery narrowed by fatty plaque buildups in artery walls may become blocked by a blood clot, causing a stroke. Carotid artery disease is also called carotid artery stenosis.

Peripheral artery disease is the narrowing of blood vessels carrying blood to leg and arm muscles. It’s caused by fatty buildups of plaque in artery walls. People with peripheral artery disease have a higher risk of carotid artery disease, which raises their risk of stroke.

**Atrial Fibrillation**

In atrial fibrillation the heart’s upper chambers quiver instead of beating effectively. This causes the blood to pool and clot. If a clot breaks off, enters the bloodstream and lodges in an artery leading to the brain, a stroke may result.
Heart Disease

People with coronary heart disease or heart failure have a higher risk of stroke than those with hearts that work normally. An enlarged heart, heart valve disease and some types of congenital heart defects also raise the risk of stroke.

Sickle Cell Disease

This is a genetic disorder that mainly affects African-American and Hispanic children. “Sickled” red blood cells are less able to carry oxygen to the body’s tissues and organs. These cells also tend to stick to blood vessel walls, which can block arteries to the brain and cause a stroke.

High Blood Cholesterol

High levels of low-density lipoprotein (LDL) or “bad” cholesterol increase the risk of developing clogged arteries. If an artery to your brain becomes blocked, a stroke can result.

Poor Diet

Diets high in saturated fat, trans fat and cholesterol can raise blood cholesterol levels. Diets high in salt contribute to increased blood pressure. Diets with excess calories contribute to obesity.

Physical Inactivity and Obesity

Being inactive and obese can increase your risk of high blood pressure, high cholesterol, diabetes, heart disease and stroke. At least 30 minutes of cardiovascular activity, such as walking, is recommended on most or all days. Check with your doctor before beginning an exercise program.

Alcohol Abuse

Alcohol abuse can lead to multiple medical complications, including stroke. Drinking an average of more than one drink per day for women or more than two drinks a day for men raises blood pressure.

Drug Abuse

Drug addiction is often a chronic relapsing disorder associated with a number of societal and health-related problems. Drugs that are abused, including cocaine, amphetamines and heroin, have been associated with an increased risk of stroke.
Medications and Test

**Medications**

**Anticoagulants**

*Commonly prescribed include:*

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<thead>
<tr>
<th>Medication</th>
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<tbody>
<tr>
<td>Dabigatran (Pradexa)</td>
<td>Dalteparin (Fragmin)</td>
</tr>
<tr>
<td>Danaparoid (Orgaran)</td>
<td>Enoxaparin (Lovenox)</td>
</tr>
<tr>
<td>Heparin (various)</td>
<td>Tinzaparin (Innohep)</td>
</tr>
<tr>
<td>Warfarin (Coumadin)</td>
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</table>

Decreases the clotting ability of the blood. Sometimes called blood thinners, although they do not actually thin the blood. They do NOT dissolve existing blood clots. Used to treat certain blood vessel, heart and lung conditions. Helps prevent harmful clots from forming in the blood vessels. May prevent the clots from becoming larger and causing more serious problems. Often prescribed to prevent first or recurrent stroke.

*Possible side effects of medication:* Poor appetite, stomach cramps, rash

**Antiplatelet Agents**

*Commonly prescribed include:*

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<tr>
<th>Medication</th>
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<tbody>
<tr>
<td>Aspirin</td>
<td>Clopidogrel (Plavix)</td>
</tr>
<tr>
<td>Dipyridamole (Aggrenox)</td>
<td>Ticlopidine (Ticlid)</td>
</tr>
</tbody>
</table>

Keep blood clots from forming by preventing blood platelets from sticking together. Helps prevent clotting in patients who have had a heart attack, unstable angina, ischemic strokes, TIA and other forms of cardiovascular disease. Usually prescribed preventively, when plaque buildup is evident, but there is not yet a large obstruction in the artery.

*Possible side effects of medication:* Stomach pain, heartburn, bleeding, nausea, headache, diarrhea, rash

**Angiotensin-Converting Enzyme (ACE) Inhibitors**

*Commonly prescribed include:*

<table>
<thead>
<tr>
<th>Medication</th>
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<tbody>
<tr>
<td>Benazepril (Lotensin)</td>
<td>Captopril (Capoten)</td>
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<tr>
<td>Enalapril (Vasotec)</td>
<td>Fosinopril (Monopril)</td>
</tr>
<tr>
<td>Lisinopril (Prinivil, Zestril)</td>
<td>Moexipril (Univasc)</td>
</tr>
<tr>
<td>Perindopril (Aceon)</td>
<td>Quinapril (Accupril)</td>
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<tr>
<td>Ramipril (Altace)</td>
<td>Trandolapril (Mavik)</td>
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</tbody>
</table>

Expands blood vessels and decreases resistance by lowering levels of angiotensin II. Allows blood to flow more easily and makes the heart’s work easier or more efficient. Used to treat or improve symptoms of cardiovascular conditions, including high blood pressure and heart failure.

*Possible side effects of medication:* Cough, lightheadedness, salty or metallic taste, rash, vomiting, diarrhea
### Beta Blockers
(Also known as Beta-Adrenergic Blocking Agents)

**Commonly prescribed include:**
- Acebutolol (Sectral)
- Betaxolol (Kerlone)
- Carteolol (Cartrol)
- Nadolol (Corgard)
- Sotalol (Betapace)
- Atenolol (Tenormin)
- Bisoprolol (Zebeta)
- Metoprolol (Lopressor, Toprol XL)
- Propranolol (Inderal)
- Timolol (Blocadren)

Decreases the heart rate and cardiac output, which lowers blood pressure and makes the heart beat more slowly and with less force. Used with therapy for abnormal heart rhythms and in treating chest pain. Help prevent future heart attacks in patients who have had a heart attack.

**Possible side effects of medication:** Light-headedness, blurred vision, unusual weakness, drowsiness

### Calcium Channel Blockers
(Also known as Calcium Antagonists or Calcium Blockers)

**Commonly prescribed include:**
- Amlodipine (Norvasc, Lotrel)
- Diltiazem (Cardizem, Tiazac)
- Nifedipine (Adalat, Procardia)
- Nisoldipine (Sular)
- Bepridil (Vascor)
- Felodipine (Plendil)
- Nimodipine (Nimotop)
- Verapamil (Calan, Isoptin, Verelan)

Interrupts the movement of calcium into the cells of the heart and blood vessels. May decrease the heart’s pumping strength and relax blood vessels. Used to treat high blood pressure in addition to chest pain caused by reduced blood supply to the heart muscle and some abnormal heart rhythms.

**Possible side effects of medication:** Light-headedness, constipation, nausea, fatigue, muscle cramps, ankle swelling, flushing, headache
**Diuretics**

*Commonly prescribed include:*
- Amiloride (Midamor)
- Bumetanide (Bumex)
- Chlorothiazide (Diuril)
- Chlorthalidone (Hygroton)
- Furosemide (Lasix)
- Indapamide (Lozol)
- Spironolactone (Aldactone)
- Hydrochlorothiazide (Esidrix, Hydrodiuril)

Causes the body to rid itself of excess fluids and sodium through urination. Helps to relieve the heart’s workload. Also decreases the buildup of fluid in the lungs and other parts of the body, such as the ankles and legs. Different diuretics remove fluid at varied rates and through different methods. Used to help lower blood pressure and reduce swelling from excess buildup of fluid in the body.

*Possible side effects of medication:* Frequent urination, light-headedness, constipation, nausea

**Digitalis Preparations**

(Also known as Digoxin and Digitoxin)

*Commonly prescribed include:*
- Lanoxin

Increases the force of the heart’s contractions, which can be beneficial in heart failure and for irregular heart beats. Used to relieve heart failure symptoms, especially when the patient isn’t responding to ACE inhibitors and diuretics. Also slows certain types of irregular heartbeats, particularly atrial fibrillation.

*Possible side effects of medication:* Nausea, headache, blurred vision, skin rash, loss of appetite, diarrhea

**Statins (cholesterol-lowering drugs)**

*Common types of cholesterol lowering drugs include:*
- Statins (Lipitor, Zocor, etc.)
- Clofibrate (Lopid, Tricor)
- Resins (Questran, WelChol)
- Ezetimibe (Zetia)
- Nicotinic acid (niacin)

Various medications can lower blood cholesterol levels. They may be prescribed individually or in combination with other drugs. They work in the body in different ways. Some affect the liver, some work in the intestines and some interrupt the formation of cholesterol from circulating in the blood. Used to lower LDL (“bad”) cholesterol and triglyceride levels and raise HDL (“good”) cholesterol levels.

*Possible side effects of medication:* Headache, nausea, diarrhea, rash, weakness, muscle pain
Medications and Test

Common Imaging Tests

CT scan (computed tomography) or CAT (computerized axial tomography)

A computer uses X-rays taken from a series of different angles to show cross-sectional views of the brain. It’s usually the first test given to a patient with stroke symptoms. CT results provide information about the cause of a stroke and the location and extent of brain injury.

What happens during the procedure?

You will lie down on a moving table, which will slide you into the tunnel-like scanning machine. Inside the scanner, multiple X-ray beams are passed very quickly through your body at different angles.

CT scans of the brain typically last 10 minutes. The length depends on how much area must be scanned and how much detail is needed. The procedure is painless. You can talk to the technologist at any time during the procedure.

MRI (magnetic resonance imaging)

Magnetic resonance imaging (MRI) is a test that produces very clear, detailed pictures of the organs and structures in your body. The test uses a powerful magnetic field, radio waves and a computer to create images in cross-section. The images produced by MRI are sharper and more detailed than a CT scan so it’s often used to diagnose small, deep injuries.

What happens during the procedure?

You lie down on a cushioned bed that moves into a tunnel-shaped magnet that is open on both ends. You will have to be very still during the procedure so the pictures will not be blurry. Most MRIs take between 25 and 40 minutes. You will hear loud knocking and a whirring sound while the pictures are being taken. You may wear earplugs so the noise doesn’t sound so loud. You can talk to the technologist at any time during the procedure. If you have a fear of closed spaces or anxiety, a sedative may be given prior to the procedure.
Carotid Ultrasound Imaging

Ultrasound imaging is a noninvasive medical test that uses high-frequency sound waves to produce pictures of the inside of the body. The carotid arteries are located on each side of the neck and carry blood from the heart to the brain. An ultrasound of the body’s two carotid arteries provides detailed pictures of these blood vessels and information about the blood flowing through them.

What happens during the procedure?

Most ultrasound examinations are painless, fast and easy. A clear water-based gel is applied to the neck. The ultrasound technologist then presses a transducer firmly against the skin and sweeps over the area of interest until the desired images are captured. If a Doppler ultrasound study is performed, you may actually hear pulse-like sounds that change in pitch as the blood flow is monitored and measured.

Echocardiogram

An echocardiogram is a painless procedure that uses sound waves and a computer to look at your beating heart. A device called a transducer sends high-frequency sound waves through your chest. The sound waves bounce, or echo, off your heart. A computer uses the echoes to create a moving picture of the heart.

What happens during the procedure?

This simple and painless test takes about 30 minutes. A technologist will place a water based gel and a transducer on your chest. The transducer beams high-frequency sound waves at your heart. The technologist moves the transducer to several places on your chest until the picture is complete.

Electroencephalogram (EEG)

The nerve cells in your brain work by carrying tiny electrical charges. An EEG is a test that records the electrical activity of your brain. An EEG can help your healthcare provider diagnose medical problems such as epilepsy, encephalitis and dementia.

What happens during the procedure?

An EEG is painless and normally takes 45 minutes. Small metal plates, called electrodes, are pasted or taped to your head. The electrodes send information to a machine that records brain waves on paper.
Laboratory Tests

Lipid Panel

LDL stands for low-density lipoprotein. This is the main carrier of harmful cholesterol in your blood. LDL cholesterol is often called “bad” cholesterol. When you have too much LDL cholesterol in your blood, it can join with fats and other substances to build up in the inner walls of your arteries. The arteries can become clogged and narrow, and blood flow is reduced. If this buildup of plaque ruptures, a blood clot may form at this location or a piece may break off and travel in the bloodstream. If a blood clot blocks the blood flow to your heart, it causes a heart attack. If a blood clot blocks an artery leading to or in the brain, a stroke results. A high level of LDL cholesterol means there’s a higher risk of heart disease and stroke.

HDL stands for high-density lipoprotein. It carries harmful cholesterol away from the arteries and helps protect you from heart attack and stroke. HDL cholesterol is often called “good” cholesterol. It’s better to have a lot of HDL cholesterol in your blood because it seems to lower your risk of heart attack and stroke. You can raise your HDL cholesterol by quitting smoking, losing excess weight and being more active.

Troponin

Increased troponin levels may be seen in people with certain chronic health conditions such as heart failure, long-term kidney disease, and stable heart disease. The troponin test is used to help diagnose a heart attack, to detect and evaluate mild to severe heart injury, and to distinguish chest pain that may be due to other causes. Normally, cardiac troponin levels are so low that they cannot be measured. Even slight elevations may indicate some degree of damage to the heart. When a patient has significantly elevated troponin concentrations, the patient has likely had a heart attack or some other form of damage to the heart.

HgA1c

HgA1c levels depend on the blood glucose concentration. The higher the glucose concentration in blood, the higher the level of HgA1c. Levels of HgA1c are not influenced by daily fluctuations in the blood glucose concentration but reflect the average glucose levels over the prior six to eight weeks. Therefore, HgA1c is a useful indicator of how well the blood glucose level has been controlled in the recent past and may be used to monitor the effects of diet, exercise and drug therapy on blood glucose in diabetic patients.

PT/INR

The PT/INR is a test to determine the clotting tendency (coagulation) of blood and is most commonly used in monitoring the accuracy of blood thinning products such as warfarin. A person taking the anticoagulant warfarin must be tested regularly to ensure their INR stays within a specific range. A person is considered out of range when their INR result is higher or lower than what their physician establishes as their target range.
What to Expect After Discharge

Care After Discharge

You need to continue the medications prescribed after you leave the hospital in order to reduce your risk of another stroke or other cardiovascular event. Medications must be taken as prescribed by your doctor in order for them to be effective in reducing your risk of another stroke.

- The medicines are most effective when they help you reach the goal of lowering each of your risk factors. Therefore, the doses of these medications will likely need to be adjusted in order for them to be effective, based on blood tests and other measurements made by your doctor after you leave the hospital. Don’t stop your medications without speaking to your physician first.

- Even if you are feeling well, regularly scheduled doctor visits after you leave the hospital are critical to your recovery! Doctors will review your progress and medications to make sure your care is optimized.

- Make sure you have a plan for which doctor(s) you will see and when to see them after you leave the hospital, and be sure to have your list of medications with you for all doctor visits.

Recovery

Emotional Changes after Stroke

Immediately after a stroke, a survivor may respond one way, yet weeks later respond differently. Some survivors may react with sadness; and others may be amazingly cheerful. These emotional reactions occur because of biological or psychological causes due to stroke. These changes may vary from time to time and can interfere with rehabilitation.

Emotions may be difficult to control, especially soon after a stroke. Some emotions are normal responses to the changes in your life after stroke. Others are common but should not be considered a normal part of stroke recovery. If you suffer from depression, anxiety or emotions that are not in line with the occasion, seek help.

Dealing with Depression

Grieving is an essential process. But when sadness turns to depression, it’s time to act. Depression can take hold right after a stroke, during rehabilitation or after you go home. It can be—but not always—caused by brain damage from the stroke. Mild or major, it is the most common emotional problem faced by survivors.
What to Expect After Discharge

Depression symptoms include:

• Feeling sad or “empty” most of the time
• Loss of interest or pleasure in ordinary activities
• Fatigue or feeling “slowed down”
• Sudden trouble sleeping or oversleeping
• Sudden loss of appetite or weight gain
• Inability to concentrate, remember or make decisions like you used to
• Feeling worthless or helpless
• Feelings of guilt
• Ongoing thoughts of death or suicide, suicide planning or attempts
• A sudden change in how easily you are annoyed
• Crying all the time

Some useful tips:

• Make the most of rehab; the more you recover, the better you will feel
• Spend time with family and friends
• Join a stroke support group. Other survivors will understand your issues, and offer support and ideas to help you manage your emotions.
• Maintain your quality of life by staying active and doing things you enjoy
• Seek help soon after you note symptoms

Your treatment may include counseling, medicine or both.

Anxiety

Anxiety is an overwhelming sense of worry or fear. It can include increased sweating or heart rate. Among stroke survivors, feelings of anxiety are common. Often, stroke survivors suffer from both depression and anxiety at the same time.

Anxiety can affect rehabilitation progress, daily living, relationships and quality of life. So, be sure to seek help right away.

Anxiety symptoms include:

• Ongoing worrying, fear, restlessness and irritability that don’t seem to let up
• Low energy
• Poor concentration
• Muscle tension
• Feeling panicky and out of breath
• Scary rapid heart beat
• Shaking
• Headache
• Feeling sick to your stomach

Again, treatment may include counseling, medicine or both.

What can help:

• Ask your doctor about emotional changes and symptoms early on.
• Ask your family to stimulate your interest in people and social activities.
• Stay as active as possible and stay involved in your hobbies.
• Set goals and measure accomplishments.
• Plan daily activities to provide structure and sense of purpose.
• Stay involved with people, thoughts and activities that you enjoy.
• Contact your local stroke association.
• Join a stroke support group. Other survivors will understand your issues, and offer support and ideas to help you manage your emotions.
• Speak openly and honestly to your caregivers about your emotional changes. They’ll be glad you did, and together you can work out a solution.

Professionals who can help include psychologists, psychiatrists and other mental health professionals experienced with stroke-related emotional disorders.

**Fatigue**

Feeling tired is a common complaint after a stroke. About 30-70 percent of survivors suffer from fatigue. It can be frustrating and can slow down recovery. It can even affect those who are doing well after stroke.
Fatigue and Health Issues

Stroke-related health issues can decrease strength or energy. Examples include:

- Heart disease
- Infection
- Problems with your bladder or bowel movements
- Weight loss caused by changes in eating habits, poor appetite, or swallowing trouble
- Depression or extreme sadness
- Chronic pain
- Muscle weakness or paralysis

Medicines and other treatments may help. They can improve problems with depression or pain, which may increase your energy level. In addition, some drugs that treat stroke-related issues can have side effects that leave you feeling tired and worn out. Ask your doctor to explain the side effects of any drugs.

Rehabilitation and Fatigue

Tasks that once were simple—sitting up, standing and walking—now require more physical and mental effort. Doing these things can tire you.

Working with a physical therapist or an occupational therapist may help. They can teach you:

- Ways to conserve energy
- Exercises to build stamina
- How to move more efficiently

Through rehab, you relearn basic skills such as talking, eating, dressing and walking. You also improve your strength, flexibility and endurance. As your physical condition and health issues improve, fatigue will be less of a problem.

What can help:

- Ask your doctor and therapists how to keep or regain your energy.
- Know that fatigue is a genuine symptom after stroke; you will tire more easily.
- Don’t overdo it. Plan rest time.
- Find out what exercises, foods or habits can help restore your strength.
- Try not to spend too much time in bed. Lots of bed rest can result in loss of muscle strength.
- The sudden change in blood pressure when you stand up can make you dizzy. Be sure to stand up or get out of bed slowly.
- Contact your local stroke association.

What to Expect After Discharge

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- Contact your local stroke association.
• Join a stroke support group. Other survivors will understand your issues, and offer support and ideas to help you manage fatigue.
• Speak openly and honestly with your caregivers about your fatigue. They’ll be glad you did, and together you can work out the best solution.

Professionals who can help:
• A general physician or doctor.
• A physiatrist, a doctor who specializes in physical medicine and rehab.
• Occupational therapist, who helps stroke survivors manage daily tasks.
• Physical therapist, who treats problems with moving, balance and coordination.

**Aphasia**

Aphasia may make it hard to:
• Talk
• Understand what other people say
• Read
• Write
• Use numbers and do calculations

No two people experience aphasia the same way. Stroke-related aphasia typically improves within the first weeks, and continued improvements occur for months and even years. The goal for people with aphasia is to improve their ability to communicate with other people. This is done by getting back some language skills and learning new ways of getting a message across when needed.

What can help:
• Join an aphasia support group to meet and learn from other stroke survivors with aphasia and their families.
• Keep in mind that some days will be better than others. Remember to rest, pace yourself and stay relaxed.
• Most people with aphasia benefit from therapy by a speech and language pathologist. Your doctor can refer you to the appropriate person for your needs.
• Be patient; most survivors need time to adjust to the major life changes brought about by the stroke before they can maximize their therapy.
• Remember that while aphasia can make communication difficult, it should not affect the ability to think clearly.
• Emotional responses such as anger, distress, depression, anxiety, low self-esteem and dependency are common; that’s why counseling is sometimes recommended.

Research has shown that socializing is one of the best ways to maximize stroke recovery. Many experts contend that socializing should begin right away in the recovery process.
What to Expect After Discharge

Tips you can use when communicating with a person who has aphasia:

- Treat the person with aphasia as an intelligent adult; aphasia does not typically affect thinking skills.
- Speak simply, clearly and slowly.
- Be sure the person with aphasia understood you.
- Use props to make conversation easier (photos, maps).
- Draw or write things down on paper.
- Be patient. Take one idea at a time.
- Try different ways to get your message across.
- Ask yes/no questions.

If you have aphasia, here are some communication tips:

- Use props to make conversation easier (photos, maps).
- Draw or write things down on paper.
- Take your time. Make phone calls or try talking only when you have plenty of time.
- Show people what works best for you.
- Stay calm. Take one idea at a time.
- Create a communication book that includes words, pictures and symbols that are helpful to you.
- The Internet can be used to connect to people via email or to create a personal Web page.
- Carry and show others a card or paper explaining what aphasia is and that you have it. Keep it in your purse or wallet.

Your environment also can help support successful socialization. Survivors have told us that it is easiest to begin practicing conversation in a one-on-one situation with someone they are comfortable with and who understands communication disorders.

In addition:

- Practice conversation in a quiet, distraction-free environment.
- As you become more confident, slowly add more conversational partners, but continue to limit distractions such as background noise (music, other talking, TV).
- As you become more comfortable in one-to-one or small group interactions, explore less-controlled social situations with your speech-language pathologist, close friends and family, or other stroke survivors.
- Before you attend these gatherings, practice common things discussed in a variety of situations. For example, “How are you?” “It’s been a long time since I’ve seen you.”
- Practice a few statements about current events: “Did you see the basketball game?” or “Boy, we are having beautiful weather!” The more you practice this script, the greater your chances for success.
- Family members can prepare written cues, or organize pictures to promote interactions.
Remember that the speech and language changes stroke survivors experience can last a lifetime in some form or another. As life circumstances change, and your speech and language needs evolve, reevaluate what works and what has not worked in social situations. And continue to expand your horizons.

**Caregiver**

Family members can help their loved one by providing encouragement, celebrating improvements and letting the survivor do as much as possible independently. Caregivers and other family and friends can reassure stroke survivors that they are wanted, needed and important to them.

Providing care for a loved one after stroke can be an extremely rewarding experience. At the same time, it can be stressful and frustrating when you are suddenly thrust into the position of caregiver without warning. The information here will help you take care of not only the stroke survivor in your life, but yourself.

As a caregiver, you can take steps to make the transition from hospital to home easier on everyone:

- Try to encourage as much independence as possible.
- Allow your loved one to make decisions.
- Support participation in leisure activities.
- Try to take an occasional break from care giving.
- Ask for help from family, friends or community organizations.

**Caregiver: Dealing with Stress and Depression**

Physical and psychological stress is an inevitable part of care giving. One way for caregivers to relieve stress and stay healthy is to share their feelings with others. Verbalizing the need for help is not a sign of weakness but an indication of how serious the role changes are. Maintaining a support system of family and friends is crucial.

Tips for maintaining physical and psychological health:

- Learn as much as possible about the survivor’s condition; knowledge is empowering.
- Set good boundaries; learn to say no.
- Don’t dwell on what you can’t change.
- Get adequate rest.
- Maintain a healthy diet.
- Find a support system and nurture it.
- Share your feelings with someone who wants to listen.
- Focus on things you are grateful for each day.
- Care for yourself spiritually.
What to Expect After Discharge

Ultimately, caregivers who do not provide for their own well-being can’t provide care for their loved one. This is a difficult tightrope to walk because by its nature care giving is putting someone else first.

Questions for my healthcare team

Resources

- Radiological Society of North America  
  radiologyinfo.org  |  800-381-6660
- American Heart Association  
  heart.org  |  800-242-8721
- National Stroke Association (NSA)  
  stroke.org  |  800-787-6537
- Rocky Mountain Stroke Association  
  strokecolorado.org  |  303-730-8800
- Good Samaritan Medical Center Stroke Support Group  
  goodsamaritancolorado.org  |  303-689-4000
- Saint Joseph Hospital Stroke Support Group  
  saintjosephdenver.org  |  303-812-5630
- Easter Seals Colorado: Rehabilitation and Stroke Resources  
  easterseals.com/co  |  303-274-5415
- Stroke Helpline  |  1-800-STROKES (787-6537)