

Stroke Patient & Family Education



A guide and resource for you and your family.



**University of
Vermont Health**

Introduction

Welcome to University of Vermont Health. You are receiving this book because you have been admitted with the diagnosis of a stroke or related diagnosis. This booklet will help you understand:

- ▶ What a stroke is.
- ▶ What might have caused it.
- ▶ What to expect during your hospital stay.
- ▶ How you and your family can support your recovery.
- ▶ How to work with your care team to help prevent another stroke.

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The Hospital Care Team

When a patient is admitted to the hospital for a stroke, a team of health care professionals works together to provide timely, coordinated, and comprehensive care. This collaborative approach helps address the medical, physical, and emotional needs of stroke patients throughout their hospital stay and in preparation for discharge.

Attending Physician, Resident Physician and Advanced Practice Providers



The attending physician is a doctor who has completed their training, oversees your care and provides specialty training to the residents. The resident physician is a doctor who has finished medical school but is in training in a specialty area. The stroke nurse practitioner (NP) is an advanced practice nurse with additional training in stroke and works closely with the physicians to provide care while in the hospital and in the clinic.



Registered Nurse (RN)

Works closely with patient and family to care for the patient and provide education about the stroke diagnosis, procedures/testing, medication management and daily patient care. Serves as advocate and resource for patient throughout hospital stay.



Case Manager/Social Worker

Assists patient and family in identifying needs related to insurance benefits, discharge planning and available community services.



Physical Therapist (PT)

Evaluates and implements a plan of care that addresses difficulties with balance and movement that may have been affected by stroke.



Occupational Therapist (OT)

Evaluates the patient and helps with new difficulties with “activities of daily living” such as dressing, bathing, hygiene, meal preparation, vision, memory and difficulties with judgment that may have been affected by stroke.



Speech-Language Pathologist (SLP)

Evaluates the patient and helps address difficulties with communication, thinking, and swallowing. These include problems with speech, voice, language, problem solving, attention, memory, organization and swallowing that may have been affected by stroke.



Dietician

Helps to plan a healthy diet and gives suggestions for meeting nutritional needs of patients who cannot safely swallow because of effects of the stroke.



Pharmacist

Works closely with the patient and doctors to make sure proper and safe medications are ordered. They can help answer questions about medications.



Palliative Care

Works with patients and their families to help make sure the patient's needs, wishes, and comfort are taken into consideration when developing a plan moving forward—aims to improve quality of life. Available to assist in end of life planning if needed.



Care Coordinator

Evaluates and starts a plan of care with input from all services and specialties. Serves as an advocate for patients and families, helps them overcome discharge barriers and ensures a seamless transition throughout their stay and discharge.



Spiritual Care

Provides for spiritual needs and guidance for patients and their families during time of illness and hospitalization. Will try to accommodate all religions and beliefs.



Students

While you are in our care, you may encounter students who are training in their specialty area. Students are provided oversight by their instructors and assigned clinicians. They may perform assessments and tests on you as part of their training. Please feel free to ask them any questions you may have about their role.

Types of Stroke & Stroke-Related Diagnoses

Stroke, also known as a “brain attack” occurs when blood flow to the brain is disrupted, causing a lack of oxygen to the brain and death of brain cells.

Ischemic Stroke

Accounts for the majority of strokes (80%) and occurs when an artery that supplies blood to the brain is blocked.



Hemorrhagic Stroke

Less common (20%) and occurs when a vessel in the brain bursts and bleeds within the brain (intracranial hemorrhage) or in the layers surrounding the brain (subarachnoid hemorrhage).



Cerebral Venous Sinus Thrombosis

When a blood clot gets stuck in a brain vein, it stops blood from leaving the brain.

Carotid & Vertebral Artery Stenosis

Carotid artery stenosis is a narrowing of a blood vessel in the side of your neck. Vertebral artery stenosis is the narrowing of a blood vessel in the back of your neck.

Transient Ischemic Attack (TIA)

Sometimes called a mini-stroke, TIA happens when blood flow to the brain is slowed or stopped for a short period but resolves on its own. A TIA is a serious warning sign that you could have a stroke in the future and will need medical workup.

Common Symptoms of Stroke

- ▶ Weakness of one side of the body (*Hemiparesis*)
- ▶ Paralysis of one side of the body (*Hemiplegia*)
- ▶ Lack of awareness of body and environment on affected side (*Neglect*)
- ▶ Slurred speech (*Dysarthria*)
- ▶ Difficulties with expression and understanding of language (*Aphasia*)
- ▶ Difficulty swallowing (*Dysphagia*)
- ▶ Difficulty controlling bladder (*Urinary incontinence*)
- ▶ Decreased vision or difficulty visual perception
- ▶ Loss of emotional control or labile mood (*Mood swings*)
- ▶ Sudden cognitive changes including problems with memory, judgment and problem solving
- ▶ Sudden behavior and/or personality changes

If you suspect you or a family member is having a stroke, **CALL 911.**
DO NOT WAIT. TIME IS BRAIN!

Stroke Symptoms Based on Location

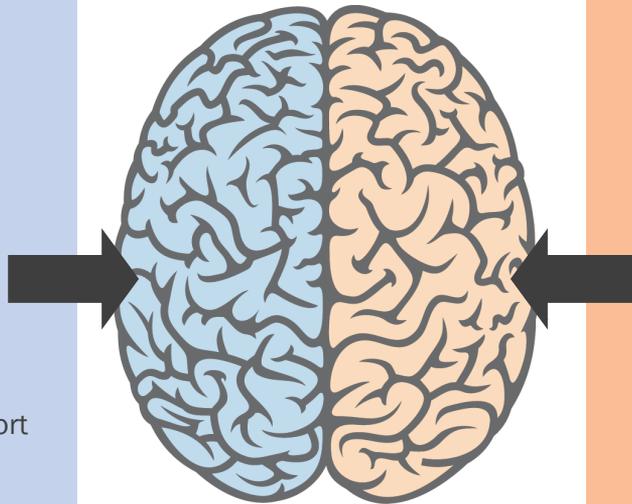
LEFT SIDE

Right-sided weakness/
paralysis

Speech and language
difficulties

Slow, cautious behavior

Memory issues, such as short
retention and difficulty
learning new things



RIGHT SIDE

Left-sided weakness/
paralysis

Left-sided neglect

Spatial/perceptual
difficulty

Poor judgment

Impulsive behavior

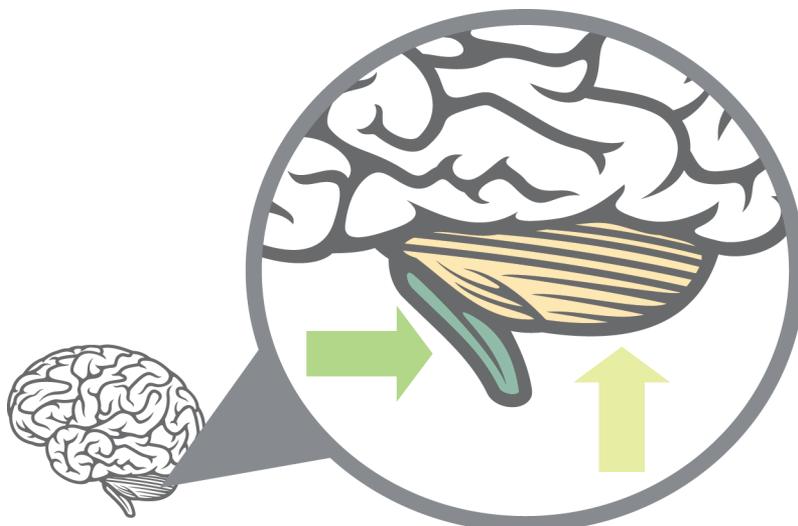
Short term memory issues

CEREBELLAR

Difficulty with balance and coordination

Dizziness

Nausea and vomiting



BRAINSTEM

Involuntary body functions such
as changes in breathing, blood
pressure and heart beat

Paralysis of one or both sides of
the body

Double vision/blurred vision

Decreased level of consciousness
(not staying awake or inability to
wake someone up)

Difficulty speaking, chewing or
swallowing

Partial or complete hearing loss

Numbness/loss of sensation



Tests & Treatments

Tests or Procedures for Stroke

Some tests you may have to confirm the diagnosis or determine further treatment are:



Computed Tomography (CT/CT Scan)

This is an X-ray from different angles of your brain usually done first to ensure no bleeding in the brain. It also helps guide your treatment plan.



Magnetic Resonance Imaging (MRI)

This takes pictures of your brain using a strong magnetic field and radio waves and is best at identifying acute and chronic ischemia, tumors, or infection.



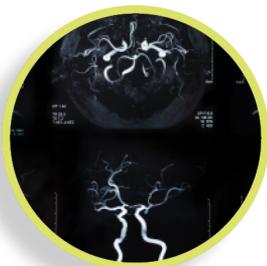
Echocardiogram

This uses ultrasound to evaluate the muscle and valves of the heart.



Telemetry or Cardiac Monitoring

This is used to detect any irregular heartbeats or a heart rhythm that may have caused your stroke.



Angiogram

This visualizes the blood vessels in the brain and looks for vascular lesions (aneurysms, AVM, AV fistula) or arterial injuries such as dissection.



Carotid Doppler

This measures blood flow in the arteries in your neck that supply blood to your brain and looks for blockages.



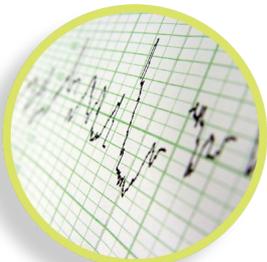
Laboratory Tests

Tests the blood and looks for stroke indicators to provide other information about your risk factors.



EEG

This is a test where electrodes are hooked up to your head and the electrical signals are recorded. The brain wave activity is reviewed by a doctor to identify any abnormalities such as a seizure.



“EKG” aka “ECG”

This is a test where electrodes are hooked up to your chest area and the electrical signals of your heart are recorded. The heart wave activity is reviewed by a doctor to identify any abnormal heart rhythms.



Dysphagia Screening

This test is done to check if you are able to swallow correctly. Many times after a stroke, swallowing can be difficult or impossible. If you cannot swallow correctly, you will be evaluated by the speech language pathologist and further tests may be necessary.

Treatment for Ischemic Stroke

IV Thrombolytic

You or your family member may have been given an IV thrombolytic upon arrival to the Emergency Department.

What is an IV Thrombolytic?

An IV thrombolytic can be used to break down clots blocking vessels in the brain, thereby restoring blood flow and oxygenation. This saves the at-risk brain tissue from dying.

An IV thrombolytic cannot be given to every stroke patient and it is very important to obtain a CT scan prior to IV thrombolytic administration. Getting the proper scans first is essential to make sure there is no bleeding in the brain.

If a patient has a bleeding (hemorrhagic) stroke, an IV thrombolytic can worsen the bleeding. This is why it is so important to make sure there is no bleeding first.

- ▶ An IV thrombolytic must be given within 3 to 4.5 hours of onset of stroke symptoms (the time someone can confirm the patient was last well and did not have symptoms).
- ▶ Not all patients qualify for this medication because there are a lot of reasons it would be unsafe to receive this medication.
- ▶ This is why the doctor will carefully consider the current medication list, recent surgeries or procedures, as well as age and other medical problems to decide if a patient should get this medication.

Although there are risks with this medication, it decreases disability after stroke.

The two types of IV thrombolytics that may be utilized for stroke are Alteplase and Tenecteplase.

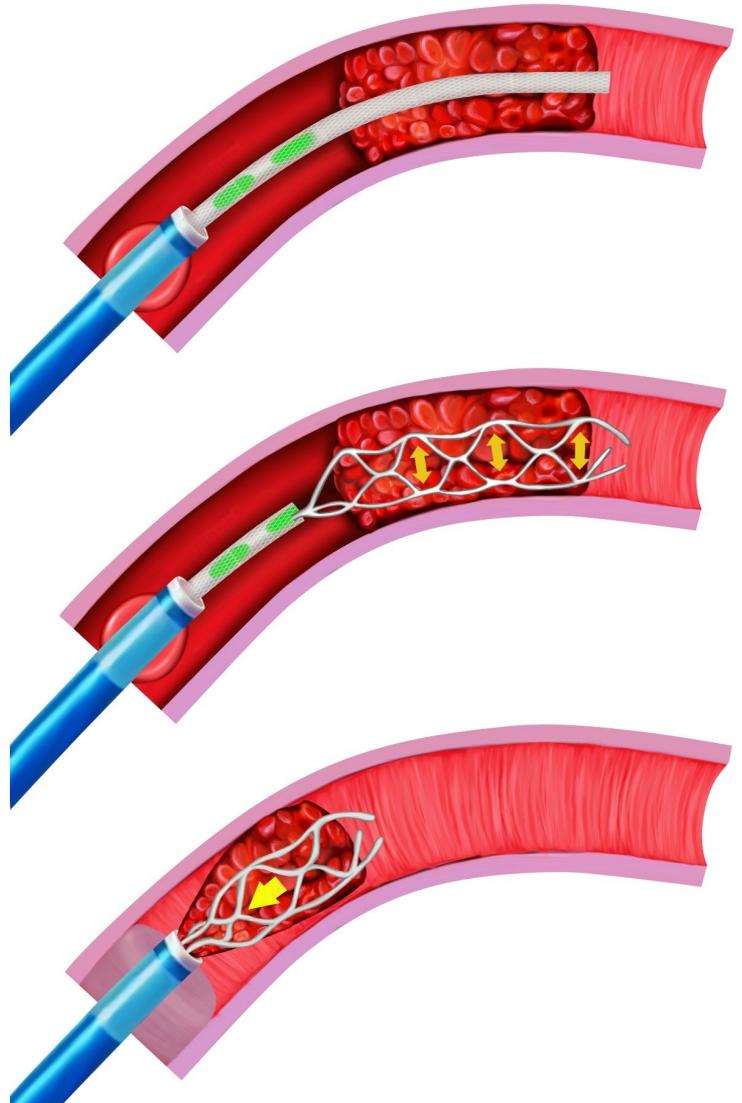


Other Treatments for Ischemic Stroke

Clot Removal Procedure (Thrombectomy)

An ischemic stroke is caused by a blockage of blood flow to the brain. This procedure can be done alone or in combination with an IV thrombolytic. This procedure has been shown to drastically reduce the degree of disability a patient might have from their ischemic stroke.

- 1. Getting Started**—A doctor places a thin tube into a blood vessel in your groin or wrist.
- 2. Guiding the Tube**—Using X-ray images, the doctor gently moves the tube up to the blocked blood vessel in your brain.
- 3. Finding the Clot**—A special dye is put into the blood vessel so the doctor can see the blockage clearly.
- 4. Removing the Clot**—A device is used to grab or suction out the clot from the blood vessel.
- 5. Restoring Blood Flow**—Once the clot is removed, blood can flow normally again, helping to protect your brain from further damage.



What are the risks of the procedure?

There is a risk of bleeding with this procedure. Most common areas for bleeding include the brain and the groin site where the catheter was placed.



Medications

Common Medications

You may be started on medications to help decrease your risk of having another stroke. It is important to take these medications as prescribed, and to consult with a health care provider before making changes or stopping the medication(s).

Blood Pressure Medicine

High blood pressure is called hypertension. Medications used to lower blood pressure are called anti-hypertensives. A diagnosis of high blood pressure can increase a person's risk of cardiovascular disease and/or stroke. It is important to work with your doctor to lower your blood pressure to normal numbers.

Cholesterol-Lowering Medicine

Cholesterol can build up on the walls of arteries and narrow the arteries. A clot can then block the artery and cause a stroke. Statins are the most common type of medicine used to control cholesterol levels. Higher-dose statins are usually the most effective. This means that high doses are usually prescribed after ischemic stroke, even for people with normal cholesterol levels.

Antiplatelet Medicine

Used to prevent blood clot formation by preventing platelets from clumping together. A platelet is a type of blood cell. Blood clots can cause a stroke if they block a blood vessel in the brain. Taking this medication can help prevent blood clots from forming, therefore reducing your stroke risk.

Anticoagulation Medicine

Medications used to help prevent blood clots by slowing down clot formation. These medications are often prescribed for patients who have atrial fibrillation (AFib) or other conditions such as prosthetic heart valves, as these increase the risk of blood clot formation.

Diabetes Medicine

Medications used to control blood sugar. These medications can either be pills or injections. Diabetes is a major risk factor for cardiovascular disease and stroke.

Tobacco Cessation/Replacement Medicine

Medications used to help you quit smoking by slowly weaning the nicotine out of your system (patch, inhaler, or gum) or blocking the nicotine receptors (Chantix).



Stroke Risk Factors

Stroke Risk Factors

Risk factors for stroke can be divided into two categories: Modifiable Risk Factors and Non-Modifiable Risk Factors. Modifiable risk factors are those that are changeable, while non-modifiable risk factors for stroke are things that can't be changed.

Modifiable Risk Factors

- ▶ Transient Ischemic Attacks or TIAs
- ▶ High blood pressure
- ▶ High cholesterol
- ▶ Heart disease including Coronary Artery Disease, Heart Valve Defects and Irregular Heartbeat/Atrial Fibrillation
- ▶ Diabetes
- ▶ Sickle cell disease
- ▶ Unhealthy diet (diets high in saturated fat, trans fat, cholesterol, salt)
- ▶ Physical inactivity
- ▶ Obesity
- ▶ Excessive alcohol intake
- ▶ Tobacco use/exposure
- ▶ Illicit drug use
- ▶ Oral hormonal contraceptives

These are all things that you and your medical team have the power to change. By working on these, you decrease your risk of having another stroke in the future.

Non-Modifiable Risk Factors

- ▶ Increasing age: the risk for stroke doubles every 10 years after age 55 (CDC)
- ▶ Gender/Sex: Stroke is more common in women than men (CDC)
- ▶ Race/Ethnicity: Black, Hispanic, American Indian, and Alaska natives are more likely to have a stroke than Non-Hispanic Whites and Asians
- ▶ History of prior stroke
- ▶ Blood vessel abnormalities (Aneurysms, Arteriovenous Malformations)
- ▶ Hypercoagulable state (example cancer, pregnancy), which means you are more likely to develop blood clots
- ▶ Family history of stroke

Take a minute to calculate your risk for stroke by filling out the form on the next page.

What's Your Stroke Risk Rating?

Each box that applies to you equals one point. Total your score at the bottom of each column and compare with the stroke risk levels.

| RISK FACTOR | HIGH RISK | CAUTION | LOW RISK |
|---------------------|----------------------------------------------|----------------------------------------------|---------------------------------------------|
| Blood Pressure | <input type="checkbox"/> >130/≥80 or unknown | <input type="checkbox"/> 120-129/<80 | <input type="checkbox"/> <120/<80 |
| Atrial Fibrillation | <input type="checkbox"/> Irregular heartbeat | <input type="checkbox"/> I don't know | <input type="checkbox"/> Regular Heartbeat |
| Smoking | <input type="checkbox"/> Smoker | <input type="checkbox"/> Trying to quit | <input type="checkbox"/> Nonsmoker |
| Cholesterol | <input type="checkbox"/> >240 or unknown | <input type="checkbox"/> 200-239 | <input type="checkbox"/> <200 |
| Diabetes | <input type="checkbox"/> Yes | <input type="checkbox"/> Borderline | <input type="checkbox"/> No |
| Exercise | <input type="checkbox"/> None | <input type="checkbox"/> 1 - 2 times a week | <input type="checkbox"/> 3 - 4 times a week |
| Weight | <input type="checkbox"/> Overweight | <input type="checkbox"/> Slightly overweight | <input type="checkbox"/> Healthy weight |
| Stroke in Family | <input type="checkbox"/> Yes | <input type="checkbox"/> Not sure | <input type="checkbox"/> No |
| TOTAL SCORE | <input type="checkbox"/> HIGH RISK | <input type="checkbox"/> CAUTION | <input type="checkbox"/> LOW RISK |

- ≥3
HIGH RISK
Talk to your health care provider immediately and ask about a stroke prevention plan. Make an appointment today.
- 4 - 6
CAUTION
You have several risk factors that place you at a higher risk for stroke. Take control now and work on reducing your risk.
- 6 - 8
LOW RISK
You're doing well at controlling stroke risk! Continue to stay informed about your numbers.

Ask your health care professional how to reduce your risk of stroke.

To reduce risk:

- ▶ Know your blood pressure.
- ▶ Find out if you have atrial fibrillation.
- ▶ If you smoke, stop.
- ▶ Find out if you have high cholesterol.
- ▶ If diabetic, follow recommendations to control your diabetes.
- ▶ Include exercise in your daily routine.
- ▶ Eat less salt and fat.

More About Stroke Risk Factors

To help prevent a second stroke

- ▶ Have regular visits with your primary care provider.
- ▶ Focus on your modifiable risk factors.

Transient Ischemic Attack (TIA)

A Transient Ischemic Attack (TIA) is a temporary blockage of blood flow to the brain that causes temporary stroke-like symptoms but does not cause permanent damage. The temporary blockage resolves on its own by either dissolving or dislodging itself and usually lasts less than five minutes but can last up to 24 hours. **It is important to seek medical attention if you believe you are experiencing a TIA** as this can be an important warning sign of an impending stroke. TIA significantly increases your risk of having a future stroke.

High Blood Pressure (Hypertension)

High blood pressure is a condition which occurs when the force of blood pushing against the sides of artery walls is consistently elevated – usually greater than or equal to 140/90 on at least 2 separate occasions. A diagnosis of high blood pressure (hypertension) can increase a person’s risk of cardiovascular disease and/or stroke.

It is important to work with your doctor to lower your blood pressure to normal numbers. This will usually involve:

- ▶ Lifestyle changes (regular physical activity and healthy diet)
- ▶ Medical management (your doctor may prescribe new medications or make changes to doses of your current blood pressure medications)

It is important to regularly monitor your blood pressure and follow all medication instructions after discharge.

| BLOOD PRESSURE CATEGORY | Systolic mm Hg (upper number) | and/or | DIASTOLIC mm Hg (lower number) |
|-------------------------------------------------------|-------------------------------|--------|--------------------------------|
| Normal | Less than 120 | and | Less than 80 |
| Elevated | 120-129 | and | Less than 80 |
| High Blood Pressure (Hypertension) Stage 1 | 130-139 | or | 80-89 |
| High Blood Pressure (Hypertension) Stage 2 | 140 or higher | or | 90 or higher |
| Hypertensive Crisis (Consult your doctor immediately) | Higher than 180 | and/or | Higher than 120 |

Atrial Fibrillation

Atrial fibrillation (also known as AFib) is a type of irregular heart rhythm that can result in pooling of blood in the heart. This pooling of blood occurs because the atria (upper chambers of the heart) shake and do not completely empty which can result in the creation of clots. These clots can travel through the blood stream to the brain, resulting in a stroke.



- ▶ AFib increases a person's risk for stroke by up to 500% according to the National Stroke Association.
- ▶ A normal heart beat is between 60-100 beats per minute. A person in AFib can have an irregular heart beat that beats as fast as 450 beats per minute.
- ▶ Some people may not experience any symptoms from this condition. Others may experience fluttering/racing/pounding in the chest, dizziness, fainting, or lightheadedness.
- ▶ If you experience an irregular heart rhythm, especially in combination with any of the above symptoms, it is important to call your doctor right away.

- ▶ During your hospital stay you may be on a heart monitor, known as "telemetry." While you are on telemetry we are looking for AFib or other abnormal heart rhythms.

If the medical team suspects Atrial Fibrillation:

- ▶ At discharge, you may also be sent home on a type of heart monitor called a Holter monitor or a "loop recorder" which both monitor for irregular heart rhythms over a few weeks' time.
- ▶ You will likely be started on anticoagulation medication to help prevent the possibility of another stroke.

According to the National Stroke Association, most strokes caused by AFib can be prevented with anticoagulation medication. These medications can reduce the risk of having a first stroke by 60-80%.

The goal for the treatment of Atrial Fibrillation is to restore the regular rhythm of the heart to prevent clot formation, or to thin the blood to prevent clot formation.

Diabetes

If diabetes is a new diagnosis for you, it will require working closely with your medical team to get it under control.



Diabetes is a problem where the body either doesn't make enough insulin or is unable to properly use insulin.

- ▶ Insulin is a hormone made in the pancreas.
- ▶ It is needed to move sugar out of the blood and into the cells for the body to use as energy.

When there is not enough insulin or the body can't use it properly, too much sugar stays in the blood. This can lead to fatty build up in blood vessels that can cause blockage of blood vessels. This increases a person's risk that those blockages could stop blood flow, resulting in a stroke. It is important to keep blood sugars at a normal level!

You can maintain blood sugar levels by:

- ▶ Eating a healthy diet
- ▶ Exercising regularly
- ▶ Taking all prescribed medications
- ▶ Subcutaneous (needle) injections of insulin (a nurse will teach you how to do this)

OR

- ▶ Oral medications (pills prescribed by your doctor for diabetes)

Monitor your blood sugar regularly. You will be taught by a nurse how to do this if you have never done this before.



| | A1C Test | Fasting Blood Sugar Test | Glucose Tolerance Test |
|--------------------|---------------|--------------------------|------------------------|
| Diabetes | 6.5% or above | 126 mg/dL or above | 200 mg/dL or above |
| Prediabetes | 5.7-6.4% | 100-125 mg/dL | 140-199 mg/dL |
| Normal | Below 5.7% | 99 mg/dL or below | 140 mg/dL or below |

High Cholesterol

Cholesterol is a soft, waxy fat found in the blood stream and in all of the body's cells. Having high levels of LDL cholesterol increases your risk of stroke and heart disease by causing buildup in the arteries.

There are two types of cholesterol

HDL (High-density lipoproteins) or “good” cholesterol, which can protect the body against narrowing blood vessels.

LDL (Low-density lipoproteins) or “bad” cholesterol, which creates narrowing in the arteries.

You can improve your cholesterol numbers by:

- ▶ Increasing your physical activity and performing regular exercise.
- ▶ Improving your diet by limiting saturated fats and increasing fiber.
- ▶ Taking all your medications prescribed for high cholesterol as directed (usually statins).

| Cholesterol Levels | | | |
|--------------------|-------------------|-----------------|--------------------------------------|
| | Total Cholesterol | LDL Cholesterol | HDL Cholesterol |
| Dangerous | 240 and higher | 160 and higher | Under 40 (male) Under 50 (female) |
| At-Risk | 200-239 | 100-159 | 40-59 (male) 50-59 (female) |
| Heart-Healthy | Under 200 | Under 70 | 60 and higher |



For more information about cholesterol management, scan the QR code or visit [heart.org/en/health-topics/cholesterol](https://www.heart.org/en/health-topics/cholesterol).

Weight Loss and Exercise

Reaching or maintaining a healthy weight can have significant benefits to overall health. When your weight is in a healthy range:

- ▶ Your body circulates blood more efficiently.
- ▶ Your fluid levels are more easily managed.
- ▶ You are less likely to develop diabetes, heart disease, certain cancers, gallstones, osteoarthritis, breathing problems, and sleep apnea.
- ▶ You may feel better about yourself and have more energy to make other positive health changes.
- ▶ You have a better quality of life.
- ▶ It helps you recover from and prevent another stroke.

Stroke.org/en/healthy-living/healthy-eating/healthy-weight.

You can lose weight (or maintain a healthy weight) by including exercise in your daily routine.

As little as 30 minutes per day a few days a week of low to moderate intensity exercise can contribute to improving your health. There are many ways to get up and move without doing formal exercise routines. You can start with activities like walking or swimming. Some people find it helpful to join a gym while others build in movement into their everyday activities.

Exercise helps to:

- ▶ Lower blood pressure
- ▶ Lower cholesterol levels
- ▶ Lose weight
- ▶ Improve mood

Some people are left with physical problems (such as weakness) after a stroke that make exercise difficult. If your stroke has left you with physical limitations, physical therapists will work with you to develop an appropriate exercise routine as well as help you improve your strength and ability to function.



Maintaining a Healthy Diet

An unhealthy diet can contribute to risk of stroke by raising blood pressure, raising blood sugar, and contributing to high cholesterol levels.

We suggest eating a healthy diet inclusive of plenty of fruits and vegetables. Avoid fried and processed foods. Choose fresh whenever you can. **In addition, try to:**

Reduce saturated fat intake - Lower the amount of saturated fat in your diet to 10% of your total daily calories.

You may have to:

- ▶ Avoid whole milk – try skim or nonfat instead.
- ▶ Avoid fatty cuts of meat-try leaner cuts of red meat, poultry, and fish.
- ▶ Remove the skin from chicken/turkey before cooking.

Cut down on total fat intake - Keep calories from all fats to less than 30% of your total daily calories.

You may have to:

- ▶ Learn new ways of cooking foods, such as baking/broiling, instead of frying.
- ▶ Use low-fat or fat-free salad dressings.
- ▶ Avoid high-fat additions to foods like butter and sour cream.



For more about nutrition labels, scan the QR code or visit heart.org.



For more about healthy diets, scan the QR code or visit heart.org/en/healthy-living/healthy-eating.

Cut back on cholesterol - Keep your cholesterol intake to below 300 milligrams a day.

You should:

- ▶ Decrease your intake of red meat, egg yolks, organ meats, and dairy products.
- ▶ Eat more vegetables, fruits, and whole grains.
- ▶ Increase fiber intake.

Cut back on salt - salt levels are directly related to blood pressure. Keep your salt intake to less than 2,400 milligrams a day. Try using salt-free seasonings such as herbs, spices, or fruit juices (lemon or orange) to flavor foods.

Eating Safely After a Stroke

A stroke affects some people's ability to swallow safely. Dietary changes may be needed and will be determined by a speech language pathologist (SLP) and your medical team.

Some people are not safe to swallow at all after a stroke. In these cases, your medical team will recommend nutrition to you in another way, such as through the use of a temporary feeding tube.

Once you are in the recovery stage after a stroke, you may have decreased energy and lack of interest in cooking or eating.

You should:

- ▶ Keep healthy snacks ready to go for when you do have interest in eating.
- ▶ Try soft foods first as these are easier to chew and swallow.
- ▶ Follow all suggestions from your SLP.
- ▶ Try a full meal at the time of day you have the most energy.

Lifestyle Changes

When you are ready, we are here to help.

Tobacco-Free

Tobacco use is the #1 preventable risk factor for stroke and post-stroke complications. This is why it is important to be proactive and minimize your risk factors. If you smoke or use tobacco products, quitting now is even more important to your healing, health, and overall well-being.

Choosing a tobacco-free lifestyle will improve your health, your life, and your future. University of Vermont Health has good news for people who use tobacco. Just one change from use to non-use can have a huge impact. Even if you are not ready today to stop using tobacco, please take a few minutes to think about what a tobacco-free lifestyle could mean for you and your family, as well as your health following a stroke.

Why is tobacco use bad for you following a stroke?

- ▶ Tobacco use reduces oxygen in the blood which makes clots more likely to form.
- ▶ Nicotine, tar, and carbon monoxide in tobacco smoke cause the buildup of plaque in arteries and temporarily increase blood pressure.
- ▶ If you continue to smoke and have high blood pressure, you increase your risk of stroke and further complications.

Here are a few ideas to get your plan started:

- ▶ Set your quit date within the next 30 days and join a group.
- ▶ Talk to your doctor, nurse, or other health care professional about your interest in quitting.
- ▶ Ask about nicotine replacement (patch, gum, lozenge) or other medications such as Chantix or Zyban to make it easier to stop.

Living Tobacco-Free Resources

- ▶ Contact a University of Vermont Health Network Tobacco Treatment Specialist through the Community Health Team at 844-886-4325.
- ▶ To register, or for more information, regarding our Smoking Cessation workshops email QuitTobaccoClass@UVMHealth.org.
- ▶ In Vermont, call the Vermont Quit Line, 1-800-QUIT-NOW (1-800-784-8669) or visit 802quits.org.
- ▶ In New York, call the New York Quit Line, 1-866-NYQUITS (1-866-697-8487) or visit nysmokefree.com.



Alcohol Consumption

If you do not currently drink, the recommendation is not to start.

If you are a current drinker, drinking in moderation is the recommendation to help prevent stroke. The National Stroke Association recommends limiting alcohol consumption to one drink per day. If you regularly drink more than 1 drink per day, you should try to cut down. If you find alcohol interferes with your daily life, you should seek help. There are support services available in the community. Please reach out to your doctor's office for more information.

Illicit Drug Use

Drug users, especially IV drug users, have an increased risk of ischemic and hemorrhagic stroke. The drugs most commonly associated with risk of stroke include amphetamine and cocaine. If you currently need help with an illicit drug addiction, please know we have resources to help.



Discharge Planning After Stroke

Discharge Planning After Stroke

Your medical team will work with you and your family to plan for your discharge. This planning begins early during your hospital stay. Your team will help you identify which type of follow up care would best meet your needs and medical condition.

A social worker or case manager will help you set up the plans for your discharge.

| PROGRAMS | SERVICES | SETTING | FREQUENCY | LIKELY CANDIDATES |
|----------------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Acute (Inpatient) & Rehabilitation Hospitals | 24-hour medical care & a full range of rehab services: OT, PT, SLP, medical psychologist | Hospital or special rehab unit in hospital | 3 hours of therapy, 5 days a week (most demanding) | People who have many medical issues and may develop problems without continued medical treatment |
| Subacute Facilities | Provide daily nursing care and a fairly wide range of rehab services: OT, PT, SLP | Subacute rehab facility, unit in hospital or at skilled nursing facility | Less demanding than acute programs, but may continue for longer periods of time | People who have serious disabilities but are unable to handle the demands of acute programs |
| Long-Term Care Facilities | One or more treatment areas | Nursing home, skilled nursing facility | 2-3 days per week | People who have their medical problems under control but still need 24-hour nursing care |
| Home Health Agencies | Specific rehab services in one or more areas: nursing, home health aide, OT, PT, SLP | In the home | As needed but may be limited in number of visits per week | People who live at home but are unable to travel for their treatments |
| Outpatient Facilities | One or more treatment areas: OT, PT, SLP | Outpatient department of a hospital | 2-3 days per week | People who have their medical problems under control enough to live in their own homes and can travel to get their treatment |



Life After A Stroke

Fall Prevention

What Increases Your Risk of Falling?

- ▶ Leg weakness
- ▶ Sensory loss
- ▶ Visual/spatial problems
- ▶ Neglect/inattention of your surroundings
- ▶ Incontinence
- ▶ Confusion/impulsivity
- ▶ Medications

Tips to Prevent Falls in the Hospital

- ▶ Always use your call bell before getting out of the bed or chair.
- ▶ The majority of falls occur when toileting. Allow time to get to and from the bathroom safely. Don't wait too long if you need to go.
- ▶ Wear non-slip socks or shoes for walking.
- ▶ Change positions slowly and rest on the side of bed before standing.
- ▶ Sit in a chair for meals and washing up. The side of the bed is NOT a safe place to sit.
- ▶ Move your muscles and joints as much as possible to preserve your strength both in and out of bed.
- ▶ Always use the assistive devices recommended for you (walker, cane, assist from staff member).
- ▶ Make sure your glasses and hearing aids are on and that these necessary items are within reach on your bedside table.
- ▶ Certain medications can make you drowsy and increase your risk for falls. **Be sure to ask your nurse if you are on any of these particular medications:** sleep aids, prescription pain relievers, blood pressure medications, antidepressants such as: Celexa, Wellbutrin, Effexor and Prozac.

The majority of falls happen when going to the bathroom. Make sure you have good lighting in all rooms.

Tips to Decrease Falls at Home

- ▶ Move furniture out of the way to create clear paths to the kitchen, bathroom, and bedroom.
- ▶ Remove or secure throw rugs with double-sided tape or nonslip backing.
- ▶ Install handrails for support in going up and down the stairs.
- ▶ Move items in cabinets to lower shelves.
- ▶ Make sure you have adequate lighting.
- ▶ Tie up or move electrical cords that may get in the way.
- ▶ Remove unnecessary clutter from the floor.

40% of stroke survivors suffer serious falls within a year after their strokes.

For more about preventing falls, visit thestrokefoundation.org or agewellvt.org.

Emotional Changes After a Stroke

Stroke survivors often experience a wide range of emotions after their stroke. These emotional changes are typically natural responses to such a dramatic life event. While some reactions are common, they shouldn't be seen as a standard part of recovery, and seeking help is important.

Depression

Grieving for what has been lost is a good and appropriate step in recovery. However, if that grief and sadness turns to depression, you should seek help. Depression can present immediately after the stroke or it can come weeks to months later down the road. Whether you're having mild or severe symptoms, it is the most common emotional change stroke survivors experience.

Common Symptoms:

- ▶ Feeling sad most of the time
- ▶ Loss of interest or pleasure in things that used to bring you pleasure
- ▶ Fatigue
- ▶ Insomnia or sleeping too much
- ▶ Sudden loss of appetite or weight gain
- ▶ Difficulty concentrating, remembering, or making decisions
- ▶ Feeling helpless or worthless
- ▶ Feeling guilty
- ▶ Repeated thoughts of death or suicide, suicide planning or attempts
- ▶ A sudden change in how quickly you get annoyed
- ▶ Crying frequently

Anxiety

Anxiety is an intense feeling of worry or fear that can become overwhelming. It's very common for stroke survivors to experience these emotions, often alongside depression. This emotional distress can impact daily living, rehabilitation progress, quality of life, and relationships. If you notice any of the symptoms listed below, it's important to seek help by reporting them to your primary care provider (PCP) or neurologist.

- ▶ Continuous worry, fear, restlessness, and irritability
- ▶ Difficulty concentrating
- ▶ Muscle tension
- ▶ Feeling panicky and short of breath
- ▶ Rapid heart rate
- ▶ Shaking
- ▶ Headache
- ▶ Nausea

Uncontrolled Emotions

Have you found yourself crying or laughing at inappropriate times? You may be suffering from **pseudobulbar affect (PBA)**. This is common among stroke survivors. It can lead to laughing at funerals or crying at a joke. It can often be confused with depression due to uncontrolled crying.

People with PBA do not have the ability to control their emotions the way they could in the past. When the inappropriate emotion comes out in social situations, people are often embarrassed, frustrated, and angry. They can also sense the unease of the people around them. People might start to avoid work, public places, and gatherings with family and friends. This can lead to isolation, fear, and shame. These feelings can also contribute further to anxiety and depression.

There are ways to cope with PBA, which your health care provider can share with you.



Balance

Does the person have a sudden loss of balance?



Eyes

Sudden change in vision in one or both eyes?



Face

Does the person's face look uneven?



Arm

Is one arm weak or numb?



Speech

Does the person have trouble speaking or seem confused?



Time

Call 9-1-1 now!