

Stroke Education Guide

For individuals & families



Scan for digital
North Memorial Health
Stroke Education Guide



Thank you for choosing North Memorial Health hospital for your care.

Our primary concern is to help you achieve your optimal level of health. Our staff partners with you in working towards the goals you believe are most important in maintaining your health.

This education book is meant to help you better understand what happens when you have a Stroke. You and your family may have questions about your diagnosis and how to cope with problems caused by your stroke. We hope this book will help you answer some of these questions and provide resources as you go through this journey.

The Stroke and Rehabilitation Team wishes you and your loved ones the best during your recovery.

Your Stroke Care Team



Education for Stroke Patients

For information and learning, the following videos are present and free for viewing.

Each video is less than e minutes in length and can be helpful as you or your family members recover. Please make time to view them during your stay at North Memorial Health.

The available videos, in English, are as follows:

- What is Hemorrhagic Stroke
- What is Ischemic Stroke
- Your Stroke Recovery Plan
- Stroke: The Importance of Taking Your Meds
- Stroke Hospital Discharge
- Know Your Risk Factors For Stroke

Thank you, please let your nurse know if there are other topics you feel you would benefit from watching.



Using the Interactive Television System

North Memorial Health Hospital offers in room on-demand patient education videos, entertainment and spiritual/relaxation programming.

Education

To access education videos from the Main Menu Screen:

- Select **My Recovery (#2) / Education (#1) / Video Library (#2)**

These 4 videos recommended for viewing by all patients:

- The Top Ten Things You Need to Know While a Patient at North Memorial Health
- Speak Up While in the Hospital
- General Hospital Safety
- Avoiding Medical Mistakes

You may also direct patients to watch other education videos specific to their condition or needs.

Entertainment

For TV / To Access the Channel Guide:

- Select the “***Back**” button on the bottom of the Main Menu screen or,
- Select **Entertainment (#4) / Watch TV (#1)**

For Radio:

- Scroll to the end of the Channel Guide for radio/music options

For Spiritual / Relaxation Videos:

- Press **Entertainment (#4) Relaxation and Comfort (#3)**

Quick Operating Tips

- To reduce the number of button clicks while navigating, press the number that is in the lower left of the iNvision icons, instead of the directional arrow keys.
- If you get lost navigating the system, the yellow “**Menu**” button will always return you to the Main Menu screen. You may also use the “***Back**” button to return to previous menu screens.

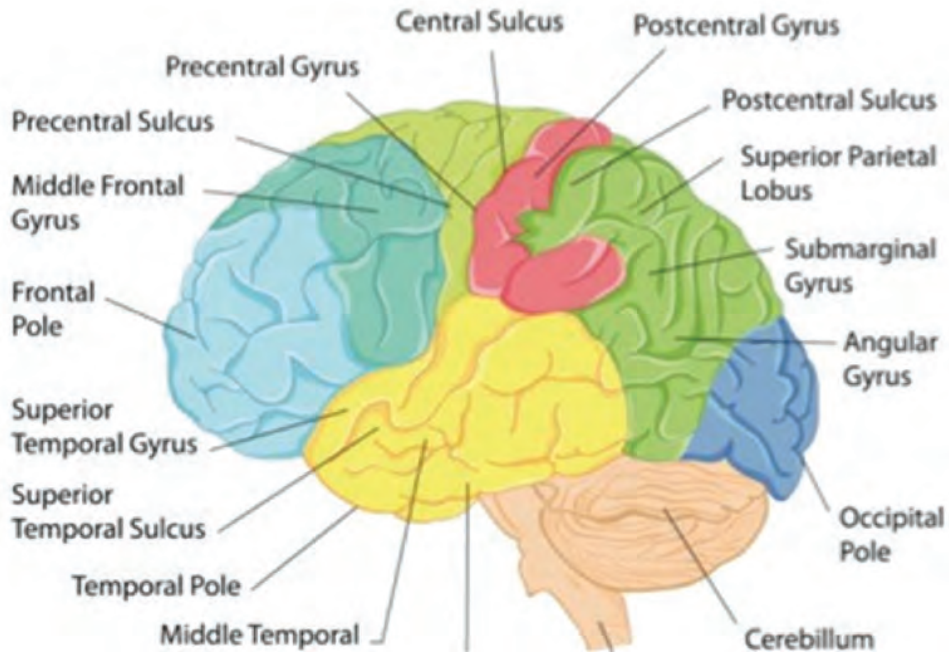
Technical Details

- For technical issues, contact Maintenance at **1-2390**.
- If Maintenance is not available, contact Sonifi Technical Support at **1-877-988-5678**. The North Memorial Health patient number is **70682**.
- Disposable stereo headsets, that plug directly into the pillow speaker, are available to give to patients. They are available as an RQC item that your HUC can order — RQC Item #22023141.

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About My Stroke and Recovery



My Type of Stroke

Clot (thrombus) Traveling clot (embolus) Bleed (hemorrhage)

The Drugs I am Taking for This Stroke

Name of Drug

Why I Am Taking It

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

My Doctor(s) Name(s) and Phone Number(s)

Name of Doctor

Phone Number

_____	_____
_____	_____
_____	_____
_____	_____
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Patient and Family Information

Stroke Center Resources

The North Memorial Health Stroke Center is located on the Plaza Level of the North Memorial Health Hospital in Robbinsdale, next to the gift shop. Stroke Center hours are Monday to Thursday 8:00 to 4:30 p.m. and also open for evening events.

You and your family members are welcome to stop in, meet the staff, and look over the many books, magazines, video tapes and brochures in the library. These are for your use and can be checked out like at any library. The staff will gladly answer questions and give you information and dates for various classes.

Stroke is a life-changing event and the programs, classes and services of the Stroke Center are designed to promote learning, coping, recovery and overall wellness for both you and your family members. Take the opportunity to sign up for one or more of these programs.

For more information on any of these programs call: (763)581-3650 or see Recovering and Wellness section for more information.

Support Groups

Coffee & Conversation (Aphasia Support Group)

This is a stroke survivor-led discussion group for people with speech difficulties. Any stroke survivor can come and join in the conversation as much or as little as they wish.

Discovery Circle (Stroke Support Group)

A once a month discussion support group where they talk about issues and concerns related to life after stroke. Speakers are often invited to talk about these topics.

Other Support Services

Mentoring Program

Ask your therapist, nurse or call the Stroke Center to meet a stroke survivor or family member who has had an experience similar to yours. This person offers support and encourages you as you recover.

StrokeWise

This educational course provides information on how to prevent and cope with stroke-related problems, learn about self-care strategies and develop a plan to stay healthy in spite of the stroke. Offered twice yearly at NMHH—Robbinsdale.

Outpatient Rehabilitation Services

Constraint-Induced Movement Therapy (CIMT)

This program aims to improve arm function on a stroke survivor's weak side. Participants perform a number of everyday tasks using their weak hand while having a cover over their strong hand. Stroke survivors must meet certain criteria to be in the program.

Spasticity Program

This program is for stroke survivors who have spasticity (muscle stiffness) that is involuntary and often painful. Multiple treatments are available to help stroke survivors move better, relieve pain and make daily activities easier. The Spasticity Program works with stroke survivors to offer them the best treatments for meeting their needs.

Balance Center

The Balance Center offers comprehensive assessments to test your balance, mobility, positional dizziness and oculomotor control.

Services to Help at Home

Meals on Wheels

Offers meals delivered to your door
612-623-3363
www.meals-on-wheels.com

Elder Care Locator Telephone: 1-800-677-1116 acl.gov

American Association of Retired Persons

1-888-687-2277
www.aarp.org

Many services are available, including:

- Drivers Improvement Program
- Medication at reduced rates/by mail
- Home assistant services

Metro Transit

612-349-7400
www.metrotransit.org

North Memorial Connect

Personal Response and Support Services
763-581-3911

PRISM (People Responding in Social Ministry)

Elder Express Senior Transportation 763-529-1350
www.prismmpls.org

Metro Mobility

651-602-1111
www.metrocouncil.org

Local Stroke Resources

Minnesota Stroke Association/ Brain Injury Alliance

2277 Highway 36 West #200
Roseville, MN. 55113
763-553-0088
www.strokemn.org

National Stroke Resources

American Stroke Association (Division of American Heart Association)

1-800-553-6321
1-888-478-7653
1-800-787-6537
www.strokeassociation.org

American Speech, Language and Hearing Association

1-800-638-8255
www.asha.org

American Stroke Association

1-800-STROKES (1 800-787-6537)
1-800-242-8721
www.stroke.org
On Line Education Series (iHope)

American Stroke Association & American Heart Association of MN

2750 Bluewater Rd Suite 250
Eagan, MN 55121
952-835-3300 "Press zero"

Publications

Aphasia Newsletter

National Aphasia Association PO Box 87
Scarsdale, NY 10583

ASA - AHA National Headquarters Stroke Connection Online Magazine

American Stroke Association 7272 Greenville
Avenue
Dallas, TX 75231-9955 1-888-4-STROKE

Neurology Now

PO Box 1908
Lowell, MA 01853-9967
www.Neurologynow.com
1-800-879-1960

Stroke Smart Magazine National Stroke Association

1-800-STROKES
(1 800-787-6537)

Online Stroke Resources

Listed below are additional resources for information. Many of them provide information free of charge or you can print information from their Web site.

Organization	URL (site)
Academy of Nutrition and Dietetics	www.eatright.org
American Heart Association	www.heart.org
American Speech, Language and Hearing Association	www.asha.org/public
American Stroke Association	www.strokeassociation.org
Aphasia Hope Foundation	www.aphasiahope.org
Minnesota Stroke Association	www.strokemn.org
Move Forward (Physical Therapy)	www.moveforwardpt.com
National Aphasia Association	www.aphasia.org
National Family Caregivers Association	www.nfcares.org
National Institute of Neurological Disorders & Stroke	www.ninds.nih.gov
National Rehabilitation Information Center	www.naric.com
American Stroke Association	www.stroke.org
Stroke Network	www.strokenetwork.org
The Brain Attack Coalition	www.brainattackcoalition.org

Understanding Stroke



Topics:

- What is a Stroke?
- Most Common Types of Strokes and Causes
- Warning Signs of Stroke and TIA (Transient Ischemic Attack)
- Effects of a Stroke

What Is A Stroke?

A stroke occurs when a blood vessel is blocked or bursts, cutting off blood flow to the brain. When blood flow to the brain stops, cells in that part of the brain are starved of oxygen and are damaged. Because your brain controls how you move, think and behave, a stroke may affect any of these functions.

Other names for a stroke you may have heard:

- Brain Attack
- TIA: Transient Ischemic Attack
- CVA: Cerebral Vascular Accident

Warning Signs of Tia And Stroke

A quick way to remember the signs of symptoms of a stroke is to think **BEFAST**

Stroke is an emergency – B.E. F.A.S.T.

Warning signs of a stroke

	B Balance loss
	E Eyesight changes
	F Facial droop
	A Arm weakness
	S Speech difficulties
	T Time: Call 911 immediately if you have any of these symptoms

Other important but less common symptoms include:

- One-sided numbness, or paralysis of face, arm or leg
- Sudden confusion or trouble understanding speech
- Blurred vision or loss of vision
- Dizziness or loss of balance
- Sudden, severe headache
- Sudden nausea and vomiting - different from a viral illness because of how fast it begins (minutes or hours versus several days)
- Brief loss of consciousness or period of decreased consciousness (fainting, confusion, convulsions or coma)

Even symptoms lasting a few minutes should be taken seriously.

If you have any of the above symptoms, dial 911. Every minute counts!

TIA (Transient Ischemic Attack)

Transient Ischemic Attack (TIA) is a warning sign of a possible stroke and is often called a “mini-stroke”. A TIA is caused by brief stoppage of blood flow to the brain.

Symptoms are the same as a stroke but appear for a shorter period of time (from a minute to 24 hours) and then goes away. This can be falsely reassuring. A TIA is basically a stroke with one important difference: blood flow resumes before any serious brain damage occurs.

The symptoms of TIA are the same as those of a stroke.

Facts:

About one-third of people who have a stroke have a preceding TIA. In a significant proportion of people, stroke develops within 48 hours of having a TIA.

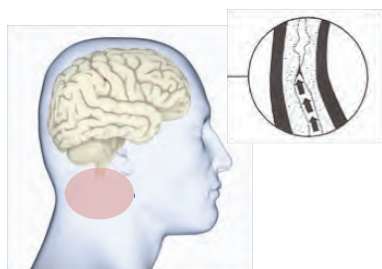
A TIA is a warning of a stroke and should be a cause for concern. All symptoms should be reported to your doctor as soon as possible.

Prevention:

Stroke prevention is crucial for those who had Transient Ischemic attack (TIA or mini strokes). Lifestyle changes, surgery, medicine or all three are important to preventing further strokes. Early interventions and treatment are critical. Review the chapter on preventing another stroke for lifestyle changes to implement to reduce your risk.

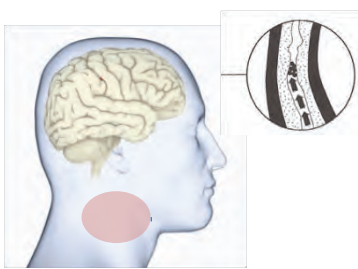
Call 911 at the first sign of a TIA or Stroke
Minutes count
Time saves Brain

Most Common Types of Strokes and Causes



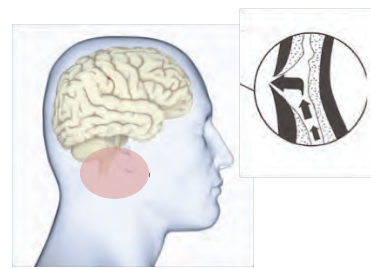
Clot (Thrombotic Stroke)

Note: Narrowing of the artery



Traveling Clot (Embolic Stroke)

Note: The clot has traveled from another part of the body



Bleed (Hemorrhagic Stroke)

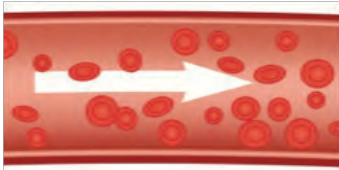
Note: The bleed is from a weak spot in the artery

How a Clot (Thrombotic stroke) happens

An artery might become blocked due to a blood clot that forms inside the artery. The main cause is hardening of the arteries (atherosclerosis).

How an Artery Becomes Blocked

Normal Artery



Atherosclerosis begins with fat deposits in the wall of the artery, a process that may begin early in life.

Partially Blocked Artery

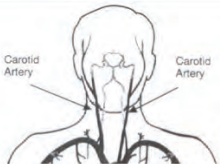


Over time, the vessel wall thickens and the inside of the artery narrows. Also, the blood vessel wall becomes rough and irregular. This causes blood cells to stick to the rough surfaces and form clots.

Blocked Artery



The clots may become large enough to totally block the blood vessel.



The two carotid arteries, which travel through the neck carrying blood to the brain, are common sites of blockage.

How a Traveling Clot (Embolic stroke) happens

The two common causes are:

A piece of clot breaks loose and is carried through the blood to the brain where it blocks a blood vessel. This clot may come from many areas such as the heart or carotid artery.

OR

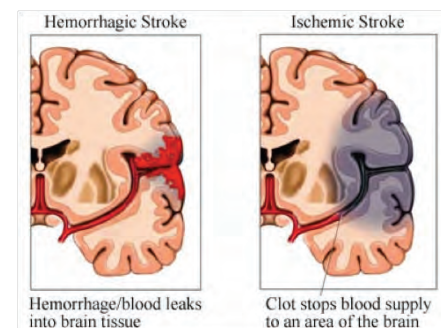
If the heart beats irregularly (atrial fibrillation), or if the heart muscle is weak, clots may form inside the heart. Pieces of this clot may break off and travel to the brain.

How a Bleed (Hemorrhagic stroke) happens

Hemorrhage occurs when a blood vessel breaks, leaking blood into the brain (intracerebral) or into the area around the brain (subarachnoid).

The two common causes are:

- **High blood pressure:** Weakens the blood vessel walls.
- **Aneurysm:** A weak spot in an artery wall that becomes thin and stretched and may rupture.



Effects of a Stroke

The damage caused by a stroke depends on the type of stroke and the area of the brain that is affected. Usually strokes occur in the lobes of the brain called the cerebrum. Symptoms vary with each person. It would be very unusual for someone to have all the symptoms listed.

Right Hemisphere Stroke

The **right side** of the brain (right hemisphere) controls the left side of the body. If you have had a stroke on the right side of your brain you may have:

- Weakness, numbness, tingling or paralysis of left side of face, arm, or leg.
- Difficulty thinking clearly or paying attention to what others say. Problems with directions like up/down and front/back.
- Changes in your vision, including not being able to see on the left side in each eye (visual field cut).
- Not recognizing the left side of your body or objects on your left side (neglect).
- Memory problems and difficulty finishing tasks.
- Trouble chewing or swallowing.
- Bouts of laughing or crying for no reason.
- Poor judgment or impulsive behavior.
- Difficulty giving full attention to activities safely such as driving a car or cooking.
- Feeling of tiredness (fatigue).
- Trouble remembering information learned visually (e.g. may get lost because of trouble identifying surroundings).

Left Hemisphere Stroke

The **left side** of the brain (left hemisphere) controls the right side of the body. If you have had a stroke on the left side of your brain you may have:

- Weakness, numbness, tingling or paralysis of right side of face, arm or leg.
- Problems talking and words may be slurred.
- Problems not recognizing the right side of the body or objects on the right side (called neglect).
- Problems using yes and no correctly.
- Emotions that are more intense, especially sadness, anger and hopelessness.
- Trouble chewing or swallowing.
- Bouts of laughing or crying for no reason.
- Short-term memory problems.
- Changes in behavior such as being more cautious, hesitant or disorganized.
- Difficulty with reading, writing and learning new things.
- Problems with thinking or repeating a word or phrase over and over (perseveration).
- Feelings of tiredness (fatigue).
- Difficulty learning and remembering verbal information (e.g. names, stories, grocery lists).

Brainstem or Cerebellum Stroke

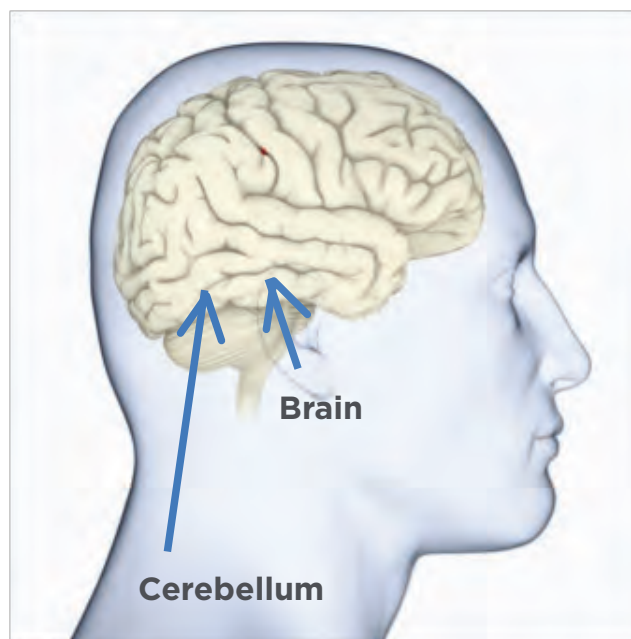
Less commonly, strokes may occur in the other two sections of the brain. These types of strokes are located in either the cerebellum, which controls coordination and balance, or in the brainstem which controls a person's "life support" functions.

If the stroke is in the cerebellum you may have:

- Dizziness and balance problems
- Problems with coordination and balance
- Slurred speech (dysarthria)
- Difficulty swallowing
- Nausea and/or vomiting

If the stroke is in the brainstem, which is located at the base of your neck and just above the spinal cord, it may have:

- Trouble with breathing, heart rate and blood pressure
- Problems with balance and coordination
- Paralysis of one or both sides of your body
- Trouble with chewing, swallowing or talking
- Problems with eyesight
- Decreased consciousness or coma



Recovering at the Hospital

What to Expect

Topics:

- Your Health Care Team
- Tests and Procedures
- Medicine and Treatments
- Rehabilitation

Your Health Care Team

The goal of your health care team is to prepare you and your family to go home and live as independently as possible. Listed below are some of the health care teams that you and your family may work with.

- Emergency Department
- Neuroscience Unit (North Memorial Health Hospital)
- Acute Rehab Unit (North Memorial Health Hospital)
- Stroke Center (North Memorial Health Hospital)
- Physical Therapy
- Occupational Therapy
- Speech Therapy
- Pastoral Services
- Social Services
- Home Care
- Nutritional Services

Other members of the team may include:

- Clinical Nurse Specialist
- Dietitian
- Doctor
- Neuropsychologist
- Advanced practice provider (Nurse practitioner or physician assistant)
- Pharmacist

These people may be contacted through your nurse, or you may call the Stroke Program at (763) 581-3650.

Tests and Procedures

Listed below are explanations of tests and procedures that may be ordered for you.

Computerized Tomographic Scan (Head CT scan)

This test is used to determine whether or not a stroke has occurred, and if so, the size and location of the stroke. It also helps identify the type of stroke, the result of blockage or the result of bleeding. The CT scan uses x-rays to take a picture of the brain. A CT scan takes approximately ten minutes.

Magnetic Resonance Imaging (MRI)

This test uses a magnetic field to show a detailed picture of the brain. It is used to identify the presence, location and size of your stroke. You need to lie still during the test. People who have claustrophobia, a fear of closed spaces, may find an MRI difficult. Talk to your nurse if this is a concern for you as you can be given a drug to help with this. The test is loud and may take up to 45 minutes.

Magnetic Resonance Angiography (MRA)

This test is used to produce an image of the arteries in the brain and can determine the degree of narrowing in an artery, especially in the carotid arteries of the neck.

Angiogram

With an angiogram a thin tube is put into the blood vessel. A special dye is injected and x-ray pictures are taken.

Carotid Ultrasound

The ultrasound uses sound waves to produce an image of the carotid artery and can tell the degree of its narrowing. This test is painless.

Echocardiogram (Echo)

An ultrasound examines the muscle and tissue of the heart. A probe is moved around the surface of the chest to see the heart. It takes about 45 minutes and is painless.

Swallow Evaluations

A nurse will perform an initial bedside swallow assessment before giving you anything to eat or drink including drugs. If further evaluation is needed you will not be given anything to eat or drink until the speech therapist does a formal swallow evaluation. See page 23 for additional information.

Trans-Esophageal Echocardiography (TEE)

A thin wire is passed down the throat into the food pipe. This test shows very clear pictures of the heart chambers and valves by using ultrasound.

Video Fluoroscopic Swallowing Study (VFSS)

Completed by using X-Ray techniques that photograph your swallowing actions while you eat. The speech pathologist will have you swallow different foods and drinks mixed with barium. The barium makes the food and liquid show up on the x-ray.

Interventional Procedures for Stroke

NORTH MEMORIAL HEALTH PATIENT INFORMATION

Interventional Radiology Procedures:

- **Endovascular embolization of a brain aneurysm***: This procedure is done in Interventional Radiology to prevent bleeding in your brain by closing off or ‘embolizing’ an aneurysm. An aneurysm occurs when an artery in the brain becomes weak and bulges. Occasionally, these aneurysms leak, and bleed into the brain. To embolize an aneurysm, your doctor places a device (typically a small flexible wire called a coil) to prevent blood from entering the aneurysm. These devices will help prevent the aneurysm from bleeding. You will be under general anesthesia during this procedure. The devices are permanent and do not need to be removed. You can have an MRI, CT or x-ray, and go through metal detectors with these devices in place. There are typically no issues with these devices.
- **Mechanical Embolectomy/Thrombectomy (intra-arterial treatment)***: This procedure is done in Interventional Radiology to open a larger artery in your brain which is blocked. There are several different devices used to accomplish this. In all cases, a long, narrow plastic tube called a catheter is inserted through a large artery in your groin and guided to the site of the blood clot. Your interventional radiologist will use the device to remove the blood clot. This will open the blood vessel and restore normal blood flow.
- **Cerebral Angiogram***: This is a procedure done in Interventional Radiology to diagnose problems with blood vessels and blood flow in your brain. IV contrast will be used in this procedure and you will not be under anesthesia, but you may receive sedation.

Surgical Procedures:

- **Carotid endarterectomy**: This is a surgical procedure done in an operating room to help prevent a stroke by improving blood flow to your brain. It involves opening the artery and removing plaque from inside the carotid artery in your neck. It will have its’ own set of post-operative instructions found in your ‘**After Visit Summary**’ at discharge.
- **Carotid Stenting***: This is a procedure done in Interventional Radiology to help prevent strokes by improving blood flow to your brain. It will necessitate a brief hospital stay, usually 24 hours or less. This procedure involves placing a small wire mesh tube called a stent inside the clogged carotid artery to help open the artery and keep it open. The stent is placed using a catheter which usually is inserted through an artery in the groin.
- **Craniotomy**: This is a surgical procedure done in surgery to remove part of the skull (a bone flap) to reach the brain. The location and size of the craniotomy will depend on your stroke. You will be under anesthesia during this surgery. There is no groin site involvement with this surgery. It will have its’ own set of post-operative instructions found in your ‘**After visit summary**’ at discharge.
- **Ventriculostomy**: This procedure may be done in surgery or in some cases, by the Neurosurgeon, at the bedside. It uses gravity to drain excess fluid from your brain. A catheter is inserted into one of the ventricles in your brain (chambers in your brain which hold cerebral spinal fluid) and drains into a collection bag. This helps reduce pressure on your brain. You will be in the Intensive care while this catheter is in place.

INTERVENTIONAL RADIOLOGY POST-PROCEDURAL CARE INSTRUCTIONS

Thank you for choosing North Memorial Health for your care. These instructions are intended to help you manage your self care when you leave North Memorial Health. Also follow any instructions your doctor gives you.







Call your primary care physician right away if you have any of the following symptoms:

- Continuous pain at puncture site.
- Temperature of 100.5 or higher or chills.
- New or increased drainage from the puncture site.
- Increased swelling or new lump or bump at the puncture site (Hematoma).
- Any Uncontrollable bleeding from the site.
- Change in color, loss of sensation, numbness or change in temperature in the leg or arm used for the test.

If you develop a recurrence of the symptoms that brought you to the hospital in the first place go to the Emergency Room.

Call 911 if you have any signs or symptoms of Stroke:

Warning signs of a stroke

	B	Balance loss
	E	Eyesight changes
	F	Facial droop
	A	Arm weakness
	S	Speech difficulties
	T	Time: Call 911 immediately if you have any of these symptoms

Incisional care for Interventional Radiology patients:

Keep the clear band aid dry and in place for 24 hours after the procedure. There may be an informational card regarding your clear groin dressing if it is a “Star Closure,” ask you nurse about it.

If your doctor permits, you may shower after 24 hours. No tub bath for 3 days until the groin site has healed. Avoid squatting or lifting over 10 pounds for 5-7 days after your procedure. Your skin may be black and blue at the groin site and you may feel a small lump or knot under the skin from the size of a pea to the size of a walnut. This is a normal part of the healing process and should resolve in two to three weeks. If the site becomes more painful or the bump becomes larger notify the Interventional Radiology service at North Memorial at **(763) 581-9560**.

There is always an Interventional Radiologist on-call to answer your questions.

Surgical procedures will have their own instructions listed in your ‘**After Visit Summary**’ at discharge.

If you are discharged to home and any of the symptoms are severe or life threatening, **CALL 911.**

MANAGING PAIN

If you have received medicine for pain or sedation it can cause you to be sleepy, not think clearly and feel unsteady.

For (12/24) hours after receiving the medicine:

- You must have an adult stay with you if you are discharged.
- Remain at home and rest during that time. You may not return to work.
- To prevent burns, do not smoke without an adult present.
- Be careful if you do anything that involves coordination such as: bathing, showering, cooking, or using electrical devices.
- Avoid rapid movement as dizziness may result.
- Delay important decision-making.

General warnings include:

Do not drink alcohol, drive, or operate heavy equipment for 24 hours after your last dose of pain medicine.

Take pain medicine as prescribed. Read the labels including warnings and follow the directions. If you are uncomfortable, you may take acetaminophen (Tylenol) as directed. If the discomfort is severe or continuous, call the doctor. You may also apply an ice pack.

Medications:

Ask for written information about any new medicine that is ordered for you including the name, side effects, and what foods or other things to avoid. When you get your medicine, read the labels, including warnings. Make sure it is what the doctor ordered for you, and you know how to take it and store it. If you have difficulty buying or getting your medicines, check with your doctor or health care provider. Avoid alcohol use, as directed.

Find more about this and other subjects in your **After Visit Summary** provided at discharge.

We hope your experience at North Memorial Health has met your expectations for high quality, compassionate care.

SPECIAL INSTRUCTIONS

Deep Vein Thrombosis (DVT):

Watch for signs and symptoms of Deep Vein Thrombosis (blood clot in a vein in an extremity) after your procedure. Some things to watch for are pain, fatigue, swelling, discoloration and/or unusual warmth in the extremity below the procedure site also can be a sign of DVT. If you experience any of these, please notify your primary physician immediately.

Be sure you understand any treatment procedures you will be doing at home. Wash your hands with soap and water often. Handwashing is the most important single thing that you can do to prevent infection.

Activity and Rest:

Same day of procedure: If you are discharged, you cannot drive. You may walk short distances or climb a few stairs if doctors orders' permit. Plan to sit or lie down as much as possible for the next 24-48 hours. Do not squat or lift greater than 10 pounds. You may feel dizzy when standing, if so, sit or lie down until this passes then get up slowly.

First day after the procedure: If you have been discharged from the hospital do not lift greater than 10 pounds for 5-7 days after your groin access procedure. Exercise and other strenuous activity should be discussed with your doctor.

Nutrition:

You may resume your normal diet unless otherwise directed. Drink plenty of fluids to help rid excess dye.



Medicine and Treatments

If you are having symptoms of a stroke, you will be examined by a doctor in the emergency room and be given tests to help determine if you have had a clot (ischemic stroke) or bleeding in your brain (hemorrhagic stroke).

When the stroke is caused by a clot, it may be possible to dissolve the clot using a clot-dissolving drug to improve the flow of blood. Treatment times vary based on how the drug is given. The clot-dissolving drug can reduce the chances of developing disabilities from stroke.

Your doctor will order medicines for you based on your specific needs. Make sure your doctor is aware of any drugs you are taking now. You can ask for information on any of your drugs.

A small portion of this list may or may not include medicine to:

- Prevent your blood from clotting
- Treat your high cholesterol
- Treat your high blood pressure
- Treat your diabetes

Rehabilitation

A very important part of treatment for your stroke is rehabilitation. Depending on your stroke symptoms, you may need rehabilitation in the areas of physical, occupational, speech and/or therapeutic recreation therapy. After a stroke you often need to relearn basic activities of daily living. Your rehabilitation team will assess your need for rehabilitation, help you relearn and gain independence with these skills and discuss a plan for continued therapy. Anticipate that you will begin therapy within the first 24-48 hours following your stroke.

Adaptive Equipment:

Your therapists and nurses will provide you with adaptive equipment (such as a cane, brace, eating utensils, etc.) to help you become as independent as possible.

Deconditioning:

The most predictable effects of deconditioning are the decrease in muscle mass and muscle strength (Estimated to be two to five percent per day). Deconditioning has been linked to falls, functional decline and immobility. Best way to prevent deconditioning is to keep moving. If you are limited to your bed, ask your therapist for passive range-of-motion exercises that can be performed throughout the day.

Positioning:

One important element common for all patients is the need for proper positioning which requires a team approach. The purpose of proper positioning is to facilitate the return of normal tone, maintain joint range of motion and prevent nerve entrapment injuries. Proper positioning will also decrease the possibility of medical and musculoskeletal complications. Avoid pulling on the affected arm when repositioning in bed or from a lying to a sitting or standing position. The limbs, hands and feet should be placed in a natural position. Additionally, frequent position changes are important to reduce the risk of pressure sores due to loss of sensation and impaired circulation from the stroke. To the right is an example of the proper positioning while lying on your back:



Impact of Stroke on the Mind and Body

Topics:

- Paralysis
- Pain and Joint Concerns
- Swallowing Problems
- Speech Challenges
- Memory and concentration
- Bowel & Bladder Problems
- Sleep Apnea
- Stroke Related Tiredness (Fatigue)
- Emotions
- Intimacy (Sexuality)



Paralysis

Paralysis on one side of the body is usually the most common sign of a stroke. It is usually on the side of the body opposite the side of the brain affected by the stroke. There are different degrees of paralysis depending the site and extent of brain damage.

Types of Paralysis:

- One-sided **paralysis** (hemiplegia). It can affect the entire side of the body, or only an arm or a leg.
- One-sided **weakness** (hemiparesis).

Pain and Joint Management

Pain is common for many people who have had a stroke. It can occur in areas where there is normal feeling, or in parts of the body where there is little or no feeling. When you are in pain it can affect the way you feel both physically and emotionally. It may cause you difficulty in carrying out daily activities.

When you take care of your pain before it becomes a problem, you will:

- Heal faster
- Be more comfortable to do your exercises
- Regain your strength faster

Types of Pain Following a Stroke

Spasticity

When the brain has been injured as a result of a stroke, spasticity may result. Spasticity is an abnormal involuntary state in which the muscles contract which is often painful. Spasticity is a common side effect of stroke and this can happen at the time of the stroke or months later.

Ways to treat spasticity may include:

- Daily muscle stretching to improve range of motion
- Stretching or exercising in a warm pool
- Use splints or taping
- Massage therapy
- Medicine to relax the muscles
- Medications can be injected into tight muscles to reduce spasticity

Frozen Joint

A joint may “freeze” from lack of use due to paralysis. The shoulder joint is most often affected, but other joints can also be involved. Usually the affected joint is very painful, which limits activity. A frozen joint freeze is best prevented by frequent movement of the limb using the strong arm to help move the weak arm. Assistance from another person is also helpful.

Ways to treat frozen joint may include:

- Injections into the joint may be given to relieve pain
- Aggressive physical therapy
- Surgery



Dislocated or Drop Shoulder (subluxation)

When a stroke affects the arm and it becomes paralyzed, the shoulder muscles of that arm may become weak and unable to hold the arm in place. This results in a dropped shoulder which may, or may not, include some swelling (edema) of the arm. It is important to support the shoulder joint but using a sling to hold the arm in position is discouraged as this can lead to a frozen shoulder.

Ways to treat may include:

- Positioning the arm with pillows or using a lapboard when sitting

Central Pain (thalamic)

Occasionally, the cause of the pain comes directly from the brain itself. This type of pain is called central pain. It occurs in about 5% of stroke survivors. Symptoms of central pain are numbness, tingling, burning and being sensitive to touch.

Ways to treat central pain may include:

- Medicines, as directed by your doctor
- Other options like acupuncture or massage

The longer pain goes untreated, the harder it is to relieve. Effective pain management can break the pain cycle.

Follow These Four Steps for Managing Your Pain:

1. Talk with your doctor, nurse and family about your pain
2. Work together to find the best way to control your pain
3. Ask for your pain medicine when the pain starts
4. Let your caregivers know how the therapy is working

Swallowing Problems

Difficulty swallowing is also referred to as dysphagia (dis-FAY-juh). This can include difficulties with any part of the process from the time food enters the mouth until it reaches the stomach. A stroke can affect the control of muscles of the lips, tongue and throat that control swallowing. A speech pathologist evaluates your situation.

General signs of dysphagia may include:

- Coughing during or right after eating or drinking
- Wet or gurgly sounding voice during or after eating or drinking
- Food or liquid leaking from the mouth or getting stuck in the mouth
- Recurring pneumonia or chest congestion after eating
- Weight loss or dehydration from not being able to eat enough

Treatment

Swallowing studies may be done to view the swallowing process on x-ray. Some ways to improve swallowing include:

- Mouth exercises to improve lip, tongue and swallowing movements
- Change in diet texture (e.g. when it is hard to swallow, a product called “Thick-It” may be used to thicken liquids)
- Positioning techniques
- Use of a feeding tube to give added nutrition

Meal Tips

- Don't eat when sleepy
- Sit upright when eating
- Take small bites and chew well
- Don't be distracted by TV or talking

Difficulty swallowing can lead to:

- Poor nutrition or dehydration
- Risk of aspiration (food or liquid entering the airway), which can lead to pneumonia and chronic lung disease. Symptoms of pneumonia include:
 - High fever
 - Shaking or chills
 - Shortness of breath
 - Productive cough
 - Chest pain when you cough or breath
- Older adults may have fewer and milder symptoms and sometimes will have sudden changes in mental awareness.



Family, please don't feed your loved one without first checking with nurse.

Speech Challenges

As a result of your stroke you may have trouble talking or understanding what others are saying to you. Listed below are some of the common speech challenges.

Aphasia

Aphasia is the loss of the ability to form, express or understand the meaning of spoken or written words. It is a result of damage to the language-center in the brain, usually on the left side of the brain.

Types of Aphasia

There are three main types of aphasia. The type and severity of aphasia depends on the site and extent of damage.

1. Expressive Aphasia (Nonfluent or Broca's aphasia)

People have trouble with expressing themselves, but generally have a good understanding of what is being said to them.

- Talking is greatly reduced
- Forming words is halting and clumsy
- Sentences are short, limited to less than four words
- May not be able to read or write
- Repeats the same word or phrase as if stuck in a pattern

2. Receptive Aphasia (Fluent or Wernicke's aphasia)

Speaking sounds normal but it is often senseless talk. People have trouble with understanding the meaning of what is being said to them.

- Sentences do not hang together
- Talks faster
- Uses unnecessary words in a sentence
- Senseless talk
- Reading and writing may also be difficult

3. Global Aphasia

This is a severe form of aphasia in which the person can neither speak nor understand words.

- Talking limited to a single word or phrase
- Hard to understand simple questions or requests
- Unable to read or write

Dysarthria

Dysarthria is slurred or impaired speech. The impaired speech may not even be noticed, or it may be so severe that it is hard to be understood. Speech changes occur due to weak muscle control.

A speech pathologist will work with you to:

- Teach exercises to improve speech, breathing, loudness, voice pitch and rate of speech
- Use special aides that may help your voice be louder or clearer such as an amplifier, an alphabet chart, a picture or word board or other electronic devices
- When you do understand what they are saying, give them confirmation before going on.
- If appropriate, use writing as an aid to communicate
- Keep informed of the new methods taught so you can use them as well

North Memorial Health's Stroke Center offers several classes for speech problems, and is open to people who have difficulty speaking, reading or writing.

Reference: www.asha.org



Memory and Concentration

One of the most significant and common changes after stroke is memory loss. Often, only certain memories are impaired or injured.

Recent Memory Loss

Most individuals who suffer a stroke continue to recall events and information from a long time ago. This is called “remote memory”. However, they may have trouble remembering things that happened shortly before the stroke or since the stroke.

Specifically, they may no longer be able to benefit from new learning (also called “recent memory”) so they may have difficulty learning and retaining new information. Thus, even though the stroke patient is told something, perhaps repeatedly, and can repeat it back initially, the patient may still be unable to remember this information a few minutes later.

Verbal or Visual Memory Loss

Depending on the location of the stroke in the brain, the patient may lose only a specific memory type (or modality). A person who has experienced a stroke may have impaired verbal memory, visual memory, both, or neither, depending on the location and severity of the stroke.

Temporary confusion or disorientation

Sometimes memory impairment will be temporary and take the form of confusion or disorientation. For a short time after the stroke (usually days or weeks), patients may be confused even in familiar surroundings. Some degree of confusion may remain if the patient continues to have difficulty learning new information.

- Try to create a daily routine
- Make a list of what you need to do every day, and refer to it often
- Put things away in designated places to make them easier to find
- Create a plan for managing your medications
- Get enough sleep at night and take short naps to improve concentration and memory
- Break activities into small steps to make them more manageable
- Provide cognitive rehabilitation to help you regain as much of your memory as possible
- Incorporate daily activities into therapy to address areas of concern (e.g., handling money, following a schedule)
- Use memory strategies (e.g. visual cues, associations, rehearsal, etc.) to compensate so you can participate in your favorite activities as fully as possible

Cognitive Functioning Evaluations:

The Rehabilitation Services at North Memorial are qualified to assess individual's memory loss, decreased cognitive functioning and their ability to manage their everyday activities. This evaluation helps identify the person's abilities as well as areas where they may need assistance. The core evaluation can provide a guide to determine the person's ability to live independently or the need for various levels of supervision, assistance or care. In addition to providing the caregiver with information about functional changes and strategies that are useful to aid in stroke recovery.

A physician order is required for any cognitive evaluation by rehabilitation services. It is optimal if a family or friend attends the appointment with the patient.

For more information or to schedule an appointment contact:

North Memorial Health Hospital: (763) 581-3440

Maple Grove or Elk River Clinics: (763) 581-9100

Bowel Problems

Changes in the bowel-emptying pattern are common following a stroke. Reasons include less activity and a lack of awareness of the need to have a bowel movement. Training your bowel takes time. The goal of a bowel program is to have regular, planned bowel movements.

Ways to Prevent Bowel Problems

Food and Fluids:

- Set a fluid and diet schedule
- Drink at least two quarts of fluid daily (helps to keep stool soft)
- Eat at the same time each day
- Eat high-fiber foods
- Eat well-balanced meals

Establish a Set Time

Set a certain time to have a bowel movement. This helps the bowel to empty.

Exercise

Staying active is important and helps move the stool through the bowel.

Taking Medicine

A stool softener, bulk-forming laxative or suppository may be recommended. It is best to try all-natural measures before using medicines.

Bladder Problems

After a stroke, some people may find it hard to pass urine. A more common problem is being unable to control the passage of urine (incontinence). These problems can be caused either by damage to the part of the brain that controls the bladder or by physical problems such as a bladder infection. If you are having problems passing your urine, a catheter may be put into your bladder to empty it.

It is important to re-establish normal bladder control as soon as possible. To do this, you may be put on a program for emptying your bladder.

Signs and Symptoms of Urinary Tract Infection

If any or some of these symptoms occur, contact your doctor:

- Foul smelling urine
- Cloudy or dark urine
- Burning or pain with urination
- Fever and chills
- Cramping in lower abdomen or side
- Pain in lower back
- Urge to empty bladder

Ways to Prevent Urinary Tract Infection:

- Wash your hands well after going to the toilet
- Bathe or shower daily and as needed
- Take bladder medicines as ordered
- Drink cranberry juice to prevent growth of bacteria or stones
- Drink at least two to three quarts of liquid every day
- Avoid tight pants or underwear
- Position scrotum so it is relieved of pressure
- Tap and press down over the bladder
- Avoid liquids such as alcohol, coffee or other caffeinated drinks which can irritate the bladder
- Try to empty your bladder every two to three hours

Sleep Apnea

Obstructive sleep apnea (OSA) is caused by repetitive narrowing or collapse of the throat during sleep. It is estimated that 50-70% of stroke patients have OSA. Untreated sleep apnea can lead to recurrent strokes and can also limit your recovery from a stroke, but excellent treatment options are available.

The following screening questionnaire can help determine your risk for sleep apnea:

1. Have you been told that you snore loudly?
 Yes No
2. Do you often feel tired, fatigued, or sleepy during the daytime?
 Yes No
3. Do you stop breathing or has anyone witnessed you stop breathing while you sleep?
 Yes No
4. Do you have high blood pressure or on medication to control high blood pressure?
 Yes No
5. Is your body mass index greater than 35?
 Yes No
6. Are you 50 years old or older?
 Yes No
7. Is your neck circumference greater than 40 cm (or shirt collar larger than 15.5 inch)?
 Yes No
8. Are you a male?
 Yes No

If you answered YES to 3 or more questions, you are at increased risk for sleep apnea and should talk with her healthcare provider about visiting with a sleep specialist. A score of 5 or more is highly associated with moderate to severe OSA, and immediate attention should be considered.

For more information, please contact: North Memorial Health Sleep Health Centers @ (763) 581-5050 or visit northmemorial.com/sleep



Stroke Related Tiredness

Almost everyone who has had a stroke talks about feeling very overwhelmed and tired. Both the mind and body are affected by this tired feeling. This is because the body uses more than the usual amount of energy to perform even the simplest tasks of daily living. This fatigue may get better as time goes. You may also discover that it never completely goes away, but rather you have learned to adapt to living with a certain amount of fatigue. Conserve your energy by focusing on doing those things that are most important to you and ask for assistance with the other things.

Reasons for Feeling Tired

- You may not be sleeping well, eating poorly or from side effects of your medicines.
- Activities take more effort, such as dressing, talking or walking.
- You may also feel emotional and find yourself crying, sad and/or discouraged at times.

Ways to Feel Less Tired

- Plan your day to fit your energy level. Do your big task when you have the most energy.
- Take short naps between tasks or schedule rest periods during the day.
- Have groceries or other items delivered to your home rather than going out to pick them up. Internet shopping can conserve your energy.
- Use your energy wisely. If it is easier to walk with a cane, then use one. Get a handicap sticker for your car so you can park close to stores and save your energy for shopping.
- Learn ways to relax. When you feel yourself becoming tense or frustrated, stop what you are doing and practice a relaxation exercise.
- Tell your doctor about your fatigue. There may be another reason for your fatigue, or it may be a side effect of one of your medicines.



Emotions

Grieving Your Loss

Shortly after a stroke you will begin to realize and react to what you have lost. These reactions have been described in stages. These stages do not follow any certain order or sequence and not everyone goes through each stage. You may find yourself moving back and forth between stages at your own rate. How a person reaches the stage of acceptance varies.

We encourage you to talk freely about your fears, feelings and issues with any members of your health care team.

Common Stages of Grieving

- Anger:** “It’s not fair!” “Why did this happen to me?”
- Denial:** “I don’t believe it!”
- Bargaining:** “If I regain my ability to walk, I’ll do volunteer work at the church.”
- Depression:** “Everyone would have been better off if I had died.”
- Acceptance:** “Life is different than it was, but it is worth living.”

Remember that getting to the stage of acceptance does not mean that you are finished with the other stages. Often the different stages will run together. A problem arises when a person gets stuck in any one of these stages and refuses to accept help.

Anger

Anger is a normal response to the frustrations you experience after a stroke. Hiding anger from ourselves and others is a common response. This checklist is to help you determine if you are hiding anger from yourself. Each item is a way your anger may be disguised.

- Putting off completing tasks
- Disturbing or scary dreams
- Sore neck or shoulder muscles
- Always being late
- Sleep problems
- Grinding your teeth
- Sarcasm
- Tire easily
- Backache or headache
- Frequent sighing
- Loss of interest in activities
- Irritable
- Waking up tired
- Clenched jaw

Ways to deal with anger

Be careful how you choose to express your anger. Don’t let your anger and frustration from the stroke hurt others by what you say or do.

Take time to get control of your thoughts and feelings before you speak. If you have lots of anger, there are some active ways to let off steam and gather your thoughts.

- Ask yourself if this issue is worth arguing about
- Describe your feelings and fears and own them. For example, I think, I feel, I’m afraid
- Talk directly with the person or persons with whom you are angry
- Look for positive solutions
- Ask what your partner is thinking
- Avoid words that blame, such as, “you always,” “you should,” “you make me”

Anxiety

It is normal to anticipate that your anxiety will be high immediately following a stroke. When the anxiety persists and interferes with the ability to relax, sleep or find happiness in life, it may be time to seek help. A neuropsychologist or a psychiatrist who has experience with stroke survivors can provide necessary care.

Techniques to reduce anxiety include:

- Take a time out: Remove yourself from the stressful trigger, try yoga, listen to music, practice relaxation techniques are few examples.
- Regular exercise-This is the best medicine. However, be safe, falling is a common complication post stroke so please implement safe techniques and check with your providers and / or physical therapist regarding a plan.
- Eat a well-balanced diet. Avoid foods that surge your sugar levels, don't skip meals and have health snacks available. Avoid alcohol this can worsen anxiety and depression.
- Welcome Humor in your life
- Remember to breath: Practice controlled breathing exercises.
- Identify your triggers for stress & anxiety
- Accept that you cannot change that you had a stroke but learn to love the new you and make tomorrow better.

Reference: www.adaa.org/tips-manage-anxiety-and-stress

Depression

Depression is a deep sadness. Feelings of hopelessness and helplessness can come and go. Depression is a normal reaction to losses. Over 60 percent of people have some type of depression after stroke. It is a part of grieving your loss of living the way you once did.

- Loss of interest in people
- Irritability
- Short tempered
- Sleep changes
- Fatigue
- Weight changes
- Self-Loathing
- Crying for no reason
- Changes in eating
- Withdrawal
- Reckless behavior

What's next: I need help?

Problems arise when people get stuck in anxiety or depression and refuse to get help. People close to someone who they think might be having a high level of anxiety or are feeling depressed should contact their doctor. North Memorial's Stroke Center can connect you with counseling services as well as support groups.

In an Emergency: Call 911

**National suicide prevention hotline: Call 988
1-800-273-TALK (8255)**

Intimacy (Sexuality)

How a Stroke Affects Intimacy

A stroke creates many changes in your body and how you look, feel, move and relate to others. Coping with these changes can affect intimacy. Feelings of frustration, fear, anger, anxiety, fatigue and/or depression play a big part in the way you relate to your loved one. Being intimate includes tender touches, loving looks and caring words between two people.

Good communication is key to having close and loving relations. Fear of having another stroke during sex is a common concern. It is unlikely that a stroke will occur during lovemaking. Talk to your doctor about having sexual relations.

If you find that you and your partner have questions or are having problems with intimacy, talk to your doctor or others on your health care team. There are ways to resolve most problems. Remember, sexual health is as important to your quality of life, just like any other aspect of your stroke recovery.

Ways to Enjoy a Loving Relationship

- Share your feelings honestly and openly
- Discuss your interest in making love and changes you need to make
- Try to plan for sex in advance so you can enjoy it to the fullest
- Be creative, flexible, willing and open to change
- Find a comfortable position that supports your weaker side and conserves your energy while having sex
- Consider many ways for showing intimacy such as hugging, kissing, caressing and touching or massaging.
- Know your medications side effects since some medicines may reduce your desire for sex.



Recovering and Wellness

Topics:

- Staying Safe at Home
- Caregiver Tips
- Driving Again
- Post Stroke Checklist

Staying Safe at Home

You may want to change some things in your house or apartment that will add comfort and safety. Simple changes in the home will work for many stroke survivors in the recovery phase. Living safely at home successfully depends on safety measures and modifications that allow you to move freely in your home. The following changes are suggested.

Ways to Change Your Home

- Remove or rearrange furniture that is hard to get around
- Do not use throw rugs
- Post emergency numbers by each phone
- Install handrails on both sides of the stairs
- Put items you use often in places that are easy to reach
- Install grab bars, tub bench and raised toilet seats as needed
- Use a rubber mat or non-skid surface in the tub or shower
- Install plenty of night lights so you aren't walking in the dark

Ways for You to be Safe:

- Wear shoes recommended by your therapist, even when you get up to go to the bathroom at night.
- Walk slowly and carefully use assistive device as directed by your physical therapist
- Set a structured routine at home
- Have supervision and Allow extra time to safely practice new tasks
- Keep a cell phone within your reach and/or consider a portable alert system so you can easily call for help if necessary
- Carry identification, important phone numbers, and current list of medicines
- Use the microwave instead of the stove for cooking
- Carry a billfold-size card on aphasia (if applicable)
- Avoid stairs if possible

Caregiver Tips

Having a stroke affects more than the stroke survivor, it affects the whole family. Caregivers who meet their own needs are better able to care for their loved ones. Remember, no one takes care of the caregiver but the caregiver; it's all up to you.

- Accept your feelings. All caregivers feel frustrated, guilty, overworked and alone. It's okay.
- It takes courage to change the routine to make it easier for you and your loved one.
- Spot early warning signs of fatigue from being a caregiver - irritability, sleep problems, depression, anxiety and temper flare-ups.
- Join a support group to give you time away and share your feelings with others in similar situations.
- Learn about available options for in-home and use them when needed.
- Utilize your resources to provide short-term relief - family, friends, neighbors, church, volunteer groups and adult day care centers.
- Most importantly - give yourself a break!

Driving Again

We all rely on driving to get places. In many cases it is possible to learn to drive a car safely after a stroke. Discuss with your doctor if it is safe for you to continue driving or if you need to make modifications to your car so you can drive safely. A driving assessment program is helpful to see if it is safe for you to drive. If you have experienced seizures following your stroke, state driving regulation require certain amount of time of being seizure -free before you can resume driving. Consult your doctor about driving again.

The driving assessment center will advise about special equipment for your car. You can request a disability statement from your doctor to apply for a handicapped- driver parking permit. This permit can be used whether you drive or are a passenger.

You may have difficulty driving if you have:

- Changes in vision
- Muscle weakness, paralysis or poor muscle control
- Problems concentrating
- Changes in judgment or memory
- Medicines that make you drowsy

Warning Signs of Unsafe Driving:

- Driving too fast or too slowly
- Ignoring signs or signals
- Poor judgment of distances
- Becomes easily frustrated or confused
- Getting lost
- Accidents or near misses
- Drifting into the other lane

See community resource section for more information.

Nearby driving assessment services include:

Adaptive Experts

Services are offered on-site at your residence
651-501-5680
www.adaptiveexperts.com/mn

Courage Kenny
Twin Cities Locations
612-262-7855 or 888-846-8253
www.couragecenter.org



Resource Facilitation: Free Support after Brain Injury or Stroke

Who are the Minnesota Brain Injury Alliance and Minnesota Stroke Association

The Minnesota Brain Injury Alliance and the Minnesota Stroke Association are the only two nonprofits dedicated to enhancing the quality of life for all Minnesotans affected by brain injury or stroke and who cope with their sudden and long-term effects.

The Alliance and Association offer support to each of the 100,000 Minnesotans living with brain injury and the more than 90,000 Minnesotans who have reported having had a stroke in their lifetime. The goal is to help people get back to life.



“Resource Facilitations showed me that I was not completely alone, that there were others who faced the same difficulties.” – Mark Jaworski

What is Resource Facilitation

Resource Facilitation is a confidential service that connects individuals and those caring for them with the services, resources and answers they need to navigate life after brain injury or stroke.

**YOU HAVE QUESTIONS
LET US HELP YOU
FIND THE ANSWERS**
612-378-2742 • 800-669-6442
www.braininjurymn.org
www.strokemn.org

What does Resource Facilitation offer?

- Two years of FREE phone-based support
- Regularly scheduled calls designed to offer support and check in on progress
- Help with identifying and solving issues
- Referrals to services that can help you
- Access to education, information and events that connect individuals touched by brain injury or stroke
- A Resource Facilitator assigned to your specific region of the state, so they are familiar with resources where you live
- Accessible support in all languages through interpreters

2277 Highway 36 West, Suite 200 | Roseville, MN | 55113
612-378-2742 | 800-669-6442 | 763-553-0088
www.braininjurymn.org | info@braininjurymn.org

July 2016



2277 Highway 36 West, Ste 200 | Roseville, MN | 55113-3830
612-378-2742 | 800-669-6442

Authorization to Participate in Resource Facilitation

As part of your rehabilitation, we offer follow-up services through the Minnesota Brain Injury Alliance/Minnesota Stroke Association Resource Facilitation Program. This confidential and voluntary telephone follow-up service DOES NOT REPLACE any medical or rehabilitation follow-up care that you may need. It is intended to provide you and your family with information about brain injury or stroke and assistance in accessing services and supports. Participation begins on the date signed. A Resource Facilitator will contact you by telephone approximately six (6) weeks from the time you return this form. If you prefer contact sooner, please call the number listed above.

I, _____, give permission for myself or my child to be part of the Resource Facilitation Follow-Up Program with the Minnesota Brain Injury Alliance/Minnesota Stroke Association.

Name: _____ Telephone: _____

Address: _____ Email: _____

City: _____ State: _____ Zip: _____ Best Time to Call: _____

Date of Birth: _____ Gender: Male Female Language Spoken _____

Brain Injury Cause: _____

Stroke

Date of Incident: _____ Date of Hospital Discharge: _____

Caregiver or Guardian of Patient/Individual: _____ Relationship: _____

Address (if different then Patient/Individual): _____

Email: _____ Telephone: _____

Signature of Patient/Individual or Guardian **Date**

Professional Completing this Referral (Social Worker, Discharge Planner, Health Care/Rehabilitation Professional, etc):

Name/Title of Professional	Organization	Email/Phone
Send Completed Form to: Minnesota Brain Injury Alliance / Minnesota Stroke Association		
Attn: Resource Facilitation		
2277 Highway 36 West, Suite 200		
Roseville, MN 55113-3830		
Fax to: 612-378-2789 or Scan and E-mail to: info@braininjurymn.org [subject line: RF Referral]		

April 2014

Stroke Support Group

Discovery Circle

Discovery circle explores issues related to family life and friends, including response to disability, social and leisure activities and returning to work/retirement.

When: Second Monday of each month
(September – May)

Time: 12 – 1 p.m.

Location: North Memorial Health
Comprehensive Stroke Clinic
Plaza Level of North Memorial Health Hospital
3300 Oakdale Ave. N, Robbinsdale, MN 55422

No cost. No preregistration required.

For more information call (763) 581-3650
or email stroke.center@northmemorial.com.

Stroke is an emergency...every minute counts.



Aphasia Support Group

Coffee and Conversation

Join us for an open conversation for stroke survivors with aphasia and/or other communication difficulties. Interact with others experiencing communication difficulties and practice your communication techniques.

When: Every Monday

Time: 10 – 11:30 a.m.

Location: North Memorial Health
Comprehensive Stroke Clinic
Plaza Level of North Memorial Health Hospital
3300 Oakdale Ave. N, Robbinsdale, MN 55422

Also via Zoom. Contact the stroke center via phone or email to get invitation to zoom link.

No cost. No preregistration required.

For more information call (763) 581-3650
or email stroke.center@northmemorial.com.

Stroke is an emergency...every minute counts.



Stroke Support Group Inquiry

Learn more about our support groups and how well they might help you on your journey to wellness on the following pages, OR, you may call us in the **STROKE CENTER** at **(763) 581-3650**.

Please let us know which groups you are interested in attending by checking the circle and returning it to your nurse. Someone from North Memorial Health will call you in 3 months from discharge from the hospital. At that time you can decide if you'd like to participate in any or all of the support groups offered at North Memorial Health.

- Yes, I am interested in a **CARE GIVER SUPPORT GROUP**
- Yes, I am interested in attending **DISCOVERY CIRCLE**
- Yes, I am interested in attending **APHASIA SUPPORT GROUP**

Name: _____

Phone: _____ Today's Date: _____



TEAR THIS SHEET OUT AND GIVE IT TO YOUR NURSE.

Nurses, return this to Jackie Feyereisen in the Stroke Center by interoffice mail.



Preventing Another Stroke

Topics:

- Stroke Risk Factors and Their Impact
- Risk Factors You Cannot Control
- Risk Factors You Can Control
- Nutrition and Food Choices
 - Stroke Nutrition Therapy
 - Heart Healthy Eating: Cooking Tips
 - Sodium Free Flavoring Tips
 - Fibers Benefit
 - Dysphagia Diets

Risk Factors and Their Impact

Preventing another stroke

After stroke, survivors tend to focus on rehabilitation and recovery. But, preventing another (or recurrent) stroke is also a key concern. Of the 795,000 Americans who have a stroke each year, 5 to 14 percent will have a second stroke within one year. Within five years, stroke will recur in 24 percent of women and 42 percent of men.

Percentage of Reoccurrence After First Stroke	
Within 30-Days	3% to 10%
Within 1-Year	15% to 24%
Within 5-Years	25% to 40%

Source: www.stroke.org

You're Lifestyle Choices

Stroke is one of the most preventable of all life-threatening illnesses. Risk factors for stroke fall into two categories: those that can be controlled through lifestyle changes or drugs and those that cannot be controlled.

It's important to remember that having one or more uncontrollable stroke risk factors does not necessarily mean a person will have a stroke. With proper attention to stroke risk factors that you can control, the impact of uncontrollable risk factors can be greatly reduced.

Stroke Risk Factors You Cannot Control

Age

The chances of having a stroke increase with age. Two-thirds of all strokes happen to people over the age of 65.

Gender

Greater in males than females with the exception 35-44 years old and greater than 85 years old (Women in the United States live longer than men).

Race

African Americans have a higher risk for a stroke than some other racial groups. Hispanics also have an increased risk of stroke.

Family History

Those with a family history of heart disease, high blood pressure or stroke are at a higher risk.

Personal History of Diabetes

The reason people with diabetes are at risk may be due to poor circulation. In addition, brain damage may be more severe if blood sugar is high at the time of a stroke.

Treating diabetes may help delay the onset of problems that increase stroke risk. However, even if people with diabetes are on medicines and have blood sugar under control, they still have an increased risk simply because they have diabetes.

Risk Factors You Can Control

Certain medical conditions can put you at a higher risk for stroke. It is important to control and manage these risk factors to the best of your ability.

High Blood Pressure

High blood pressure is the most common risk for stroke. A blood pressure under 120/80 is normal. Blood pressure that is consistently higher than 130/90 is considered to be high blood pressure (hypertension).

If your blood pressure is high, it is important to work with your doctor to get it to a normal level. There are many ways to help manage your blood pressure:

- Take your medications as directed
- Maintain proper weight
- Exercise regularly
- Eat a variety of foods that are low in saturated fat and salt
- Don't smoke
- Buy a blood pressure cuff and check and record your pressure daily



High Cholesterol

Cholesterol is a waxy substance that occurs naturally in all parts of the body. Your body needs cholesterol to function normally. Your body uses cholesterol to produce many hormones, vitamin D and the bile acids that help digest fat.

It takes only a small amount of cholesterol in the blood to meet these needs. Too much cholesterol in your bloodstream can build up over time and block your arteries. If you have high cholesterol, take these steps to help reduce it:

- Eat foods low in saturated fat and low in cholesterol. Meet with a dietitian for information.
- Exercise regularly.
- Lose weight if you are overweight.
- Take cholesterol-lowering drugs ordered by your doctor.

What is LDL cholesterol?

Due to its artery clogging properties, LDL cholesterol is often referred to as “bad” cholesterol. LDL cholesterol carries cholesterol into the blood stream and to your tissues where your body can store it. This type of cholesterol can cause plaque build- up, a thick, hard substance that can clog arteries. The plaque can eventually cause arteries to narrow or become blocked completely, causing a stroke.

What is HDL cholesterol?

HDL carries cholesterol away from the tissues to the liver, where it is filtered out of the body. High levels of HDL, also called good cholesterol, seem to protect against stroke and heart attack. A low HDL level may indicate a greater stroke risk.

Reference: National Stroke Association

Diabetes

If you are diabetic, it is important to control blood sugar. High blood sugar levels can damage blood vessels.

Follow these general guidelines and the advice of your doctor:

- Eat foods low in fat and cholesterol
- Exercise
- Control your weight
- Take medicines as ordered
- Manage the level of your blood sugar

Heart and Blood Conditions

Common heart problems such as heart disease, valve defects, irregular heart beat (such as Atrial Fibrillation) and an enlarged heart can cause blood clots. These clots can break loose and block vessels in or leading to the brain. Your doctor can treat and help manage your heart problem and may put you on medicine to help prevent the formation of clots.

If you are taking the drug Warfarin (Coumadin), follow these steps:

- Get regularly scheduled blood tests on time
- Know your INR number, which tells if you are getting the right amount
- Call your doctor if you forget to take your Coumadin. Never take more medicine to catch up
- Call your doctor right away if you have any unusual symptoms like bleeding.
- Tell your doctor that you take Coumadin along with other medicines before you have any procedures or before you take any new medicines.

Sleep apnea

Sleep apnea is a risk factor for stroke. If you had a diagnosis of sleep apnea prior to your stroke, we recommend a follow up appointment with your sleep specialist.

Review the previous chapter for more information on sleep apnea.

Use of Medicines

Follow these basic guidelines for taking your medicines:

- Take your drug at the same time each day
- Never stop taking a drug without first talking with your doctor
- Try using a pillbox that separates your pills by the day of the week
- Make sure a family member knows what drugs you are routinely taking
- Report side effects to your doctor
- Talk with your doctor if you cannot afford your drugs. There are programs in place to help if you qualify for help.
- Keep a list of drugs you are taking in your wallet or purse.
- While in the hospital, you will be evaluated if you can safely take drugs on your own or if you will need assistance for a while.



Alcohol

If you drink alcohol, limit your intake to one serving or less per day. A serving size would be 1 ½ ounces of hard liquor, 12 ounces of beer, or a 4-ounce glass of wine. Alcohol is low in nutrients and high in calories so, if you are trying to lose weight, you should avoid it. Before you choose to drink alcohol, even in moderation, talk to your doctor and pharmacist. They can help you determine what is best for your health.

Smoking

Smoking has been linked to the build-up of fatty substances in the carotid artery, the main artery in the neck that supplies blood to the brain. Blockage of this artery is the leading cause of stroke. If you smoke, your doctor can suggest programs and medicine that may help you quit.

Stress is a natural reaction to everyday challenges and changes. No one can avoid it, but how you react to stress is important for your recovery. Here are a few tips on how to cope with stress.

- Talk about stressful feelings. When things build up, talk with a close friend or relative.
- Listen to your body. If you are tense and your head hurts or heart pounds, slow down! Your body is telling you something.
- Get plenty of sleep. Sleep improves how you deal with stressful situations.
- Learn to relax. Find an activity that works for you.
- Consider joining the Discovery Circle or Coffee and Conversation support groups. Contact the Stroke Center for information.

Overweight

Losing weight will reduce the strain on your heart, and often, will improve your blood pressure. It is important to work with your healthcare team including a dietitian to safely and effectively lose weight.

A good weight loss program includes:

- A healthy diet
- Physical activity
- Understanding your eating patterns.
- Because you may be limited to some physical abilities, work closely with a physical therapist to identify the best activity guidelines for you.
- Set goals and get moving!



Nutrition and Food Choices

In 2011, the United States Department of Agriculture released MyPlate as the replacement for MyPyramid. The basic guidelines will help you incorporate the 2010 dietary guidelines daily as you are planning your meals at home or eating out.

1. Make half or your plate fruits and vegetables
2. Make at least half your grains whole; choose 100% whole-grain
3. Switch to fat free or low-fat milk
4. Vary your protein choices
5. Cut back on sodium and empty calories from solid fats and added sugars
6. Enjoy your food but eat less; watch portion sizes
7. Be physically active (exercise)
8. Get to know the information on food labels

Reference: **MyPlate.gov**

Stroke Nutrition Therapy

- This eating plan is low in sodium (which comes mostly from salt).
- Have plenty of vegetables, fruits, whole grains and fat-free or low-fat dairy products. These foods contain nutrients that can help keep blood pressure under control.
- Eat heart-healthy kinds of fat to reduce the buildup of plaque in your blood vessels.
- If you need to lose weight, following a plan that limits high-fat foods and refined carbohydrates.
- Increase fiber in your diet to help decrease cholesterol levels.
- Everyone who has had a stroke should talk to their doctor about what a healthy weight is for them.

Tips to Control Blood Pressure

- Limit the sodium that you get from food and drink
 - Your doctor or registered dietitian can tell you the limit that is right for you.
 - In general, foods with more than 300 milligrams (mg) sodium per serving may not fit into your meal plan.
 - Do not salt food at the table. Use very little salt, if any, when you cook.
 - Choose carefully when you eat away from home. Restaurant foods can be very high in sodium. Let the person taking your order know that you want low-salt or no-salt choices. Many restaurants have special menus or will prepare food with less salt.
 - Prepare foods at home so you can control the amount of salt and the sodium content.
 - Use as little salt in cooking as possible. You can cut at least half of the salt from most recipes.

- When eating, try not to add salt on your food.
- Cook without mixes and “instant” products that already contain salt or additives with sodium.
- Read labels to assure you buy no-sodium or low-sodium canned foods, such as vegetables, soups or canned tuna/chicken etc.
- Season foods with herbs, spices, garlic, onions, peppers and lemon or lime juice to add flavor.
- Eat plenty of fruits and vegetables that are high in potassium
- Good fruit choices include bananas, apricots, oranges, cantaloupe and apples.
- High-potassium vegetables include potatoes, sweet potatoes, spinach, zucchini and tomatoes.
- Select fat-free and low-fat dairy products. These will help you get the calcium and potassium you need without having the added calories.
- If you drink alcohol, limit the amount:
 - Women should drink no more than one drink per day
 - Men should not drink more than two drinks per day
 - One drink is 12 ounces (oz.) of beer, 5 oz. of wine, or 1½ oz. of liquor

Eating Out

- Split an order with someone
- When portions are too large, ask for a take home container
- Ask your waiter to have the cook not add salt or seasoning salt to your meal
- Ask for extra lemon juice, a dash of Worcestershire sauce, pepper or hot sauce
- Bring your salt substitute with you to the restaurant
- Avoid commercial soups, soy sauce and batter-fried items

Source: Academy of Nutrition and Dietetics

Healthy Eating: Cooking Tips

Making Healthier Carbohydrate Choices

- When baking, choose recipes that use whole grains and flours made from whole grains.
- Reduce the amount of sugar in recipes. It can often be cut in half.
- Instead of sugar, use non-caloric sweeteners in drinks and sucralose (Splenda, etc.) when baking.
- When stir-frying, include fiber-rich vegetables, such as peppers, cabbage, broccoli and carrots.
- When making soups, add dried beans or lentils.

Cutting Back on Fat

- Select lean cuts of beef and pork, such as those labeled “loin” or “round.”
- Take the skin off poultry (such as chicken or turkey) before serving it.
- Bake, broil, roast, stew, or stir-fry lean meats, fish or poultry.
- Cook ground meat and then drain off the fat.
- When making stews or soups, refrigerate the broth and skim off the fat with a spoon before reheating and serving.
- Eat fish regularly. Try different ways to cook it so that you'll enjoy it more:
 - Grill salmon on skewers with eggplant, okra and onions.
 - Dip tilapia in milk and egg white. Next dip it in bread crumbs and sauté for a short time (about 5 minutes) in a pan sprayed with oil.
 - Bake white fish and vegetables in foil.
 - Poach white fish in milk, tomato juice or water with lemon juice added.
 - Broil tuna and then squeeze lemon juice on it.
 - Marinate orange roughly for 15 minutes in Italian salad dressing, then bake.
 - Make a tuna salad with red and green peppers.
- When cooking foods on a griddle or in a frying pan, brush the pan with cooking oil just to coat it. Or, use a nonstick spray of vegetable oil or a nonstick pan that requires no greasing.
- To limit saturated fat from milk products:
 - Thicken sauces with evaporated nonfat (skim) milk instead of whole milk.
 - Use a low-fat cheese or feta cheese in pasta dishes, such as lasagna.
- Get protein from plant foods (such as soy or dried beans and legumes) or egg whites instead of meat:
 - Add soy protein crumbles to chili and spaghetti sauce.
 - Use tofu or tempeh in a stir-fry with lots of vegetables.
 - Make soups with edamame (fresh or frozen soybeans), lentils, split peas or dried beans.
 - Make an egg white omelet with green peppers, tomatoes and onions.

- When you do cook with fat, choose healthy unsaturated fats:
- Use healthier oils, such as canola, olive or soybean oil in recipes and for sautéing.
- Make salad dressings with olive, walnut or pecan oil.
- Cook with lemon juice or herbs. These add flavor to foods, like vegetables, without adding fat or salt.

Source: Academy of Nutrition and Dietetics

Sodium-Free Flavoring Tips

When cooking, the following items may be used for flavoring instead of salt or seasonings that contain sodium.

Spice Blend Recipe (makes about $\frac{1}{3}$ cup)

- 5 teaspoons onion powder
- $2\frac{1}{2}$ teaspoons garlic powder
- $2\frac{1}{2}$ teaspoons paprika
- $2\frac{1}{2}$ teaspoon dry mustard
- $1\frac{1}{2}$ teaspoon crushed thyme leaves
- $\frac{1}{2}$ teaspoon white pepper
- $\frac{1}{4}$ teaspoon celery seed

**Remember: A little bit of spice goes a long way!
Be careful not to over season.**



Food Item	Flavorings
Beef	Basil, bay leaf, caraway, curry, dill, dry mustard, garlic, grape jelly, green pepper, mace, marjoram, mushrooms (fresh), nutmeg, onion or onion powder, parsley, pepper, rosemary, sage
Chicken	Basil, cloves, cranberries, mace, mushrooms (fresh), nutmeg, oregano, paprika, parsley, pineapple, saffron, sage, savory, tarragon, thyme, tomato, turmeric
Egg	Chervil, curry, dill, dry mustard, garlic or garlic powder, green pepper, jelly, mushrooms (fresh), nutmeg, onion powder, paprika, parsley, rosemary, tarragon, tomato
Fish	Basil, bay leaf, chervil, curry, dill, dry mustard, green pepper, lemon juice, marjoram, mushrooms (fresh), paprika, pepper, tarragon, tomato, turmeric
Lamb	Cloves, curry, dill, garlic or garlic powder, mace, mint, mint jelly, onion, oregano, parsley, pineapple, rosemary, tarragon, thyme
Pork	Applesauce, basil, caraway, chives, cloves, garlic or garlic powder, onion or onion powder, rosemary, thyme
Veal	Apricots, basil, bay leaf, currant jelly, curry, ginger, marjoram, mushrooms (fresh), oregano, paprika
Vegetables	Basil, dill, garlic or garlic powder, ginger, lemon juice, mace, marjoram, nutmeg, onion or onion powder, tarragon, tomato, sugar or sugar substitute, salt-free salad dressing, vinegar
Desserts	Allspice, anise, cinnamon, cloves, ginger, mace, nutmeg, vanilla extract, other extracts

Dysphagia Diets

Dysphagia diets are designed for patients having chewing or swallowing problems. Your physician and other healthcare professionals may prescribe appropriate dysphagia levels while in the hospital and for home.

Please note: the International Dysphagia Diet Standardization Initiative will be changing some of the diet names and formats later in 2020 so that dysphagia diets are standardized nationally.

Currently these are the three levels of diets.

National Dysphagia Diet Level 1 (NDD1): Pureed

Description

This diet consists of pureed, homogenous, and cohesive foods. Food should be “pudding-like.” No coarse textures, raw fruits or vegetables, nuts, and so forth are allowed. Any foods that require bolus formation, controlled manipulation or mastication are excluded.

Rationale

This diet is designed for people who have moderate to severe dysphagia, with poor oral phase abilities and reduced ability to protect their airway. Close or complete supervision and alternate feeding methods may be required.

National Dysphagia Diet Level 2 (NDD2): Mechanically Altered

Description

This level consists of foods that are moist, soft-textured and easily formed into a bolus. Meats are ground or minced no larger than ¼-inch pieces; they are still moist with some cohesion. All foods from NDD Level 1 are acceptable at this level.

Rationale

This diet is a transition from the pureed textures to more solid textures. Chewing ability is required. The textures on this level are appropriate for individuals with mild to moderate oral and/or pharyngeal dysphagia. Patients should be assessed for tolerance to mixed textures. It is expected that some mixed textures are tolerated on this diet.

National Dysphagia Diet Level 3 (NDD3): Chopped or Advanced

Description

This level consists of food of nearly regular textures with the exception of very hard, stick or crunchy foods. Foods still need to be moist and should be in “bite size” pieces. Meats may need to be chopped into bite size pieces.

Rationale

This diet is a transition to a regular diet. Adequate dentition and mastication are required. The textures of this diet are appropriate for individuals with mild oral and/ or pharyngeal phase dysphagia. Patients should be assessed for tolerance of mixed textures. It is expected that mixed textures are tolerated on this diet.

Thickened Liquids

Thickened beverages may be ordered after having a stroke. Nectar thick, honey thick, and pudding thick are different levels of thickness for beverages. Your nurse, speech pathologist and dietitian will assist you if thickened liquids are needed for home.

Source: Academy of Nutrition and Dietetics

Journaling

Topics:

Journaling

Journaling is recommended as part of the healing process and has positive impact on physical wellbeing. The following pages are provided to you to help you reflect on your feelings and experience throughout your journey.

At the bottom each page are “Wise Words”. These “Wise Words” were written by stroke survivors that participated in our StrokeWise educational classes over the last 15 years. Their hope was to provide inspiration to those who follow in their steps as they were on the path to recovery and wellness. Hopefully their words will help guide you in a life of wellness.

Patient and Family Journal

Date: _____

Life is too short for a second stroke – Live Right

Date: _____

We can't direct the wind, but we can adjust the sails

Date: _____

| The way to have a better tomorrow is to start working on it today

Date: _____

| Life is only what you make it. So, make it BEAUTIFUL

