



# stroke

PATIENT EDUCATION GUIDE

# PERSONAL HEALTH RECORD

This personal health record allows you to record important test results in one place and makes it convenient to share these results with your treating physician.

**Blood Pressure** \_\_\_\_\_

**Total Cholesterol** \_\_\_\_\_

**Triglycerides** \_\_\_\_\_

**HDL** \_\_\_\_\_

**LDL** \_\_\_\_\_

**BMI** \_\_\_\_\_

**Blood Sugar** \_\_\_\_\_

**Hemoglobin A1c** \_\_\_\_\_

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The information in this handbook is meant to complement the advice of your health care providers, not to replace it. Before making any major changes in your medications, diet or exercise, talk to your health care provider.

# What is a Stroke?

Arteries are blood vessels that carry blood from the heart to the brain. A stroke occurs when a blood vessel carrying blood to the brain gets blocked by a clot or bursts. This results in part of the brain not getting the blood (and oxygen) it needs, so it begins to die. The body parts controlled by the affected area of the brain may not work properly. Stroke is a medical emergency, so every second counts when seeking treatment.

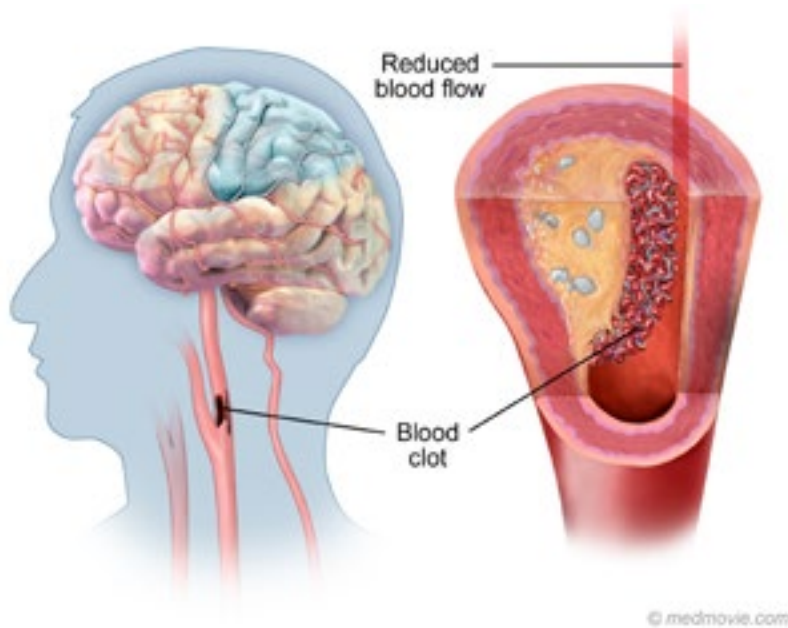
Other names for a stroke include:

- Cerebral Vascular Accident (CVA)
- Ischemic Stroke
- Transient Ischemic Attack (TIA)
- Intracranial Hemorrhage (ICH)
- Cerebral Thrombosis.

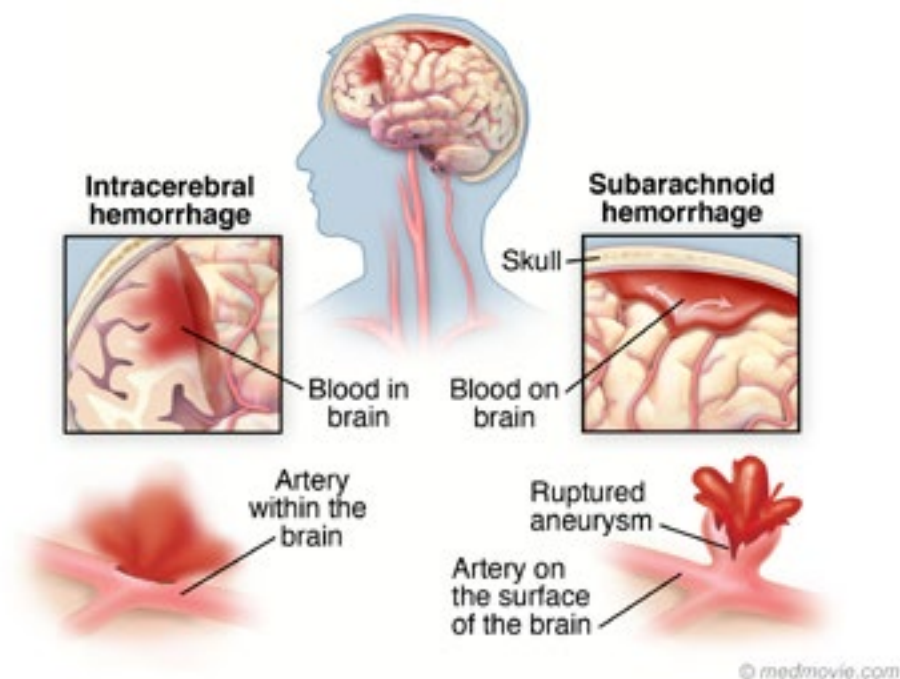


# Types of Stroke

There are three types of strokes:

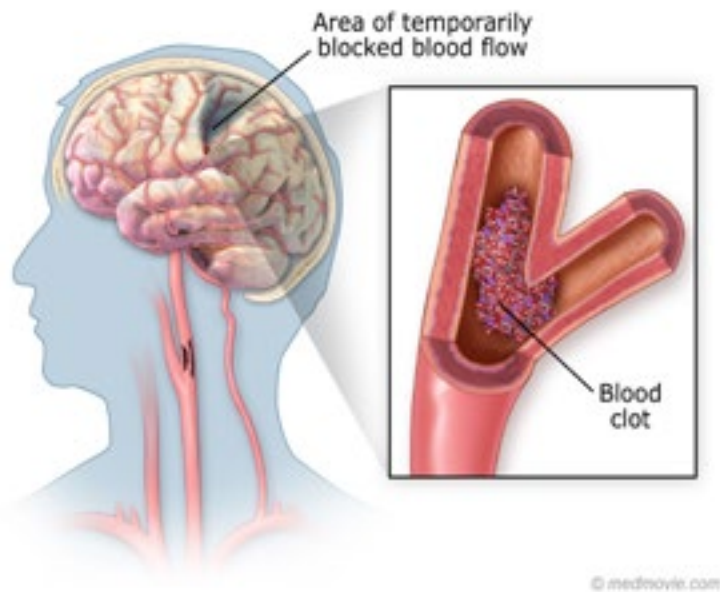


An **ischemic stroke** is a stroke caused by a blocked artery and accounts for about 87 percent of all cases. Ischemic strokes can sometimes be treated with clot-busting drugs.



A **hemorrhagic stroke** is a stroke caused by bleeding into the brain tissue. This stroke is caused by a ruptured blood vessel.

## Types of Stroke



A **TIA, or a Transient Ischemic Attack**, is called a “mini stroke.” A TIA occurs when a blood clot blocks an artery, but the blockage is temporary. The symptoms of a TIA are the same as the warning signs of a stroke, but they usually last only a few minutes. TIAs should be treated immediately and are a medical emergency.

# patient note:

**ASK YOUR PHYSICIAN!**

**The type of stroke I have had is:**



# Warning Signs of a Stroke

Warning signs of a stroke can include:

- Sudden weakness or numbness of the face, arm or leg, especially on one side of the body
- Sudden confusion, trouble speaking or understanding
- Sudden trouble seeing in one or both eyes
- Sudden trouble walking, dizziness, loss of balance or coordination
- Sudden, severe headache with no known cause.

## KNOW THE SIGNS OF STROKE &

# ACT FAST!

Remember FAST to identify stroke's warning signs.

Seek emergency help immediately if any of these symptoms are observed:



### FACE

Ask the person to smile.  
Does one side of the face droop?



### ARMS

Ask the person to raise both arms.  
Does one arm drift downward?



### SPEECH

Ask the person to repeat a simple phrase.  
Is his or her speech slurred?



### TIME

Note the time you experienced your first symptoms. If you observe any of these signs, call 911 immediately.

If you recognize any of the symptoms in yourself, or someone around you, a stroke could be happening...

**CALL 911  
IMMEDIATELY!**

# Stroke Diagnosis

Treatment options for stroke depend on the type, source and even the location of the injury in the brain. When someone has shown the symptoms of a stroke or TIA, a doctor may order diagnostic tests to determine the type of stroke.

The type of stroke must be determined because the treatment is different for an ischemic versus a hemorrhagic stroke. Diagnostic tests will examine how the brain looks, works and gets its blood supply. These tests can provide valuable information about the cause and location of the stroke.

Different types of diagnostic tests that your physician may order to diagnose a stroke include:

- **CT Scan (Computerized Tomography)**

An imaging test that uses radiation to create a picture of the brain. It is usually the first test ordered for a patient with stroke symptoms.



- **MRI Scan (Magnetic Resonance Imaging)**

MRI scans use a large magnetic field to produce an image of the brain that shows the location and extent of the stroke.



## Treatment of Acute Stroke

Once the diagnosis of stroke is suspected or confirmed, treatments to try to restore blood flow to the brain are started. Timing is critical and will determine the treatment options. These treatment options can include medications and medical procedures.

### Thrombolytic Medications

Thrombolytic medications (also called clot busters) work by dissolving blood clots that are blocking the blood flow to the brain. These medications should be given within 3 hours of the onset of stroke symptoms. Many new procedures are being developed for treating acute stroke, but all of these therapies are time dependent. Therefore, the need for determining the exact onset of the stroke symptoms is extremely important.

Since timing is essential in determining treatment, it is important to call 911 if you or someone around is experiencing the signs of a stroke. Do not drive yourself, or let someone else drive him/herself to the hospital. Emergency Medical Services (EMS) will notify the Emergency Department of your symptoms.



**Remember to Dial. Don't Drive!**

## Who is at Risk?

Some risk factors for stroke are hereditary and cannot be changed. Other risk factors result from a person's lifestyle, which can be changed, treated or controlled.

Major risk factors for a stroke that you **can** control include:

- Smoking
- High blood pressure
- High blood cholesterol
- Obesity
- Physical inactivity
- Diabetes (high blood sugar)
- Atrial fibrillation.

Risk factors that you **cannot** change include:

- **Age:** While stroke is common among the elderly, many people under the age of 65 also have strokes.
- **Heredity:** Your stroke risk is greater if a parent, grandparent, sister or brother has had stroke.
- **Race:** African-Americans have a higher risk of death and disability from a stroke partly because they have a greater incidence of high blood pressure.
- **Prior Stroke:** The risk of stroke for someone who has already had one is many times that of a person who has never had a stroke.
- **Gender:** More men than women have strokes each year. However, over half of stroke deaths occur in women.

# My Personal Risk Factors

Risk Factors are different for each person.

## patient note:

**Check the risk factors below that apply to you:**

- ☐ High Blood Pressure
- ☐ Obesity
- ☐ High Cholesterol
- ☐ Atrial Fibrillation
- ☐ Diabetes
- ☐ Smoking
- ☐ Sedentary Lifestyle
- ☐ Previous Heart Attack or Stroke
- ☐ Family history (Check all that apply.):
  - ☐ High Blood Pressure
  - ☐ High Cholesterol
  - ☐ Obesity
  - ☐ Diabetes
  - ☐ Stroke.

Your nurse or primary health care provider will give you information to help you modify your risk factors. More helpful information also can be found in this book.

# Smoking

Smoking is the number one preventable cause of premature deaths in the United States. Smoking is an important risk factor for stroke because inhaling cigarette smoke produces several effects that damage the cerebrovascular system.

If you or someone you know would like to quit smoking, consider the following:



- Prepare yourself mentally.
- Pick a day to do it.
- Encourage a friend to quit with you.
- Think about what your smoking “triggers” are and try to avoid them.
- Change your smoking routine; move the cigarettes, or smoke only in certain places.
- When you want a cigarette, wait a few minutes before lighting up.
- Switch brands.

Cigarette smokers have a higher risk of developing cardiovascular disease. Smoking also decreases your good cholesterol, temporarily raises your blood pressure and increases the blood’s likelihood of clotting.

For information and advice about quitting smoking, please talk to your physician or nurse. As a community-based hospital organization dedicated to improving lives, we at North Oaks want to assist you in quitting smoking and offer several resources. For help in setting yourself free from cigarettes, or for more information, contact one of the following departments or agencies:

- North Oaks Respiratory Care Services (985) 230-2020
- North Oaks Community Education (985) 230-5723
- American Heart Association (800) 242-8721 or visit [www.heart.org](http://www.heart.org)
- American Lung Association (800) 586-4872 or visit [www.lung.org](http://www.lung.org)
- Quit With Us, LA, Louisiana Tobacco Quitline, (800) QUIT-NOW [784-8669].

# Relapse Prevention for New Non-Smokers

## **Think of yourself as a non-smoker.**

- Decide that cigarettes, or any tobacco products, are not an option!
- Refer to yourself as a non-smoker – not as an ex-smoker.

## **Watch out for the top 3 triggers:**

- Being around smokers
- Alcohol
- Highly emotional situations. (Remember to watch yourself for your Personal triggers too.)

## **You can manage your weight when you quit.**

- Stay active.
- Drink water and eat healthy meals.
- Keep low-fat, low-calorie snacks on hand. (Remember to follow the specific dietary or fluid guidelines and/or restrictions that your primary health care provider has discussed with you.)

## **You can manage stress when you quit.**

- Incorporate stress reducing activities into your new lifestyle.
- Use stress management techniques.

## **If you “slip” (smoke or use tobacco products), do not let it turn into a relapse.**

- Ask yourself what went wrong.
- Fine tune your strategies and recommit to quitting.
- One cigarette does not mean that you are a smoker again.

## **If you have a relapse, you can get back on track.**

- Ask yourself if you still want to quit.
- Find a NEW reason to quit.
- Revise your strategies, commit to quit, and set a new date.
- Join, or rejoin, a support group to help you stay a non-smoker.



## High Blood Pressure

High blood pressure, or Hypertension (HTN), is the leading cause of stroke. Many people believe effective treatment of high blood pressure is a key reason for the decrease in death rates for stroke. Blood pressure measures the force pushing outwards on your arterial walls.

The pressure is the result of two forces. The first force occurs as blood pumps out of the heart and into the arteries that are part of the circulatory system (systolic pressure). The second force is created as the heart rests between heartbeats (diastolic pressure). The two forces are each represented by numbers in a blood pressure reading.

Optimal blood pressure in people over the age of 20 is 120/80 or lower. High blood pressure (hypertension) is considered to be 140/90 or above. Medications, diet, exercise and weight loss can assist in controlling your blood pressure.

## patient note:

**My Blood Pressure is:**

# High Cholesterol

High cholesterol is a major risk factor for stroke, heart attack and coronary artery disease. Even though high cholesterol can lead to serious heart disease, many times there are no symptoms.

Cholesterol comes from two sources, your body and food. Your liver and other cells in your body make about 75 percent of blood cholesterol. The other 25 percent comes from the food you eat. Cholesterol is only found in animal products.

There are two types of cholesterol: “good” and “bad.” Too much of one type, or not enough of the other, can put you at increased risk for heart attack and stroke. HDL (“good cholesterol”) helps keep the LDL (“bad cholesterol”) from getting lodged in the artery walls. A high level of HDL may prevent heart attack and stroke, whereas a high level of LDL can clog arteries and increase the risk for heart attack and stroke.

- Your **total cholesterol** should be below 200 mg/dL.
- Your **triglyceride** level should be below 150mg/dL.
- Your **HDL**, or good cholesterol, should be 40mg/dL or higher.
- Your **LDL**, or bad cholesterol, should be less than 100mg/dL.

# High Cholesterol

Your cholesterol level is affected by your diet, weight, physical activity and exposure to tobacco smoke. These factors may be controlled by eating a heart-healthy diet, enjoying regular physical activity and avoiding tobacco smoke. For some people, lifestyle changes are not enough to reach healthy cholesterol levels. Your physician may prescribe medication. Whether you have been prescribed medication or advised to make lifestyle and dietary changes to help manage your cholesterol, carefully follow your physician's recommendations.

## patient note:

**My cholesterol levels in the hospital are:**

**Total cholesterol:** \_\_\_\_\_

**Triglycerides:** \_\_\_\_\_

**HDL:** \_\_\_\_\_

**LDL:** \_\_\_\_\_

# Physical Inactivity and Obesity

About one-third of adults in the United States (33.8%) are obese. Overweight and obesity are both terms to describe ranges of weight that are greater than what is generally considered healthy for a given height. Certain diseases and other health problems are more likely within the weight ranges of overweight and obesity.

Body Mass Index (BMI) is a number calculated from a person's height and weight. This number is a tool to screen for possible weight problems in adults.

- A BMI of 18.5-24.9 is considered normal.
- A BMI of 25-29.9 is considered overweight.
- A BMI of 30.0 and above is considered obese.

Body Mass Index Table																																																							
Normal						Overweight					Obese										Extreme Obesity																																		
BMI	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54																			
Height (inches)	Body Weight (pounds)																																																						
58	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167	172	177	181	186	191	196	201	205	210	215	220	224	229	234	239	244	248	253	258																			
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74	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272	280	287	295	303	311	319	326	334	342	350	358	365	373	381	389	396	404	412	420																			
75	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279	287	295	303	311	319	327	335	343	351	359	367	375	383	391	399	407	415	423	431																			
76	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287	295	304	312	320	328	336	344	353	361	369	377	385	394	402	410	418	426	435	443																			

Source: Adapted from Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report.

## Physical Inactivity and Obesity

# patient note:

**Your nurse or dietitian can assist you in calculating your BMI during your stay.**

**My BMI is:** \_\_\_\_\_

Regular physical activity has many health benefits, such as controlling blood pressure, helping with weight loss, reducing cholesterol levels and reducing the risk of developing diabetes. The key is finding activities that best fit your lifestyle and abilities.

The American Heart Association/American Stroke Association recommends moderate exercise 30 minutes a day 5 to 7 days per week. This could be broken into three 10-minute walks throughout the day.

Regular physical activity can relieve anxiety, depression and increases the flow of oxygen to the brain which can actually improve memory. According to the American Heart Association, moderate exercise, such as brisk walking, for as little as 30 minutes per day helps reduce the risk of a stroke by 20 percent in moderately active people. Regular physical activity also improves blood cholesterol levels, and helps manage high blood pressure levels.

Before beginning any exercise program, consult with your physician to discuss what is right for you and your health.

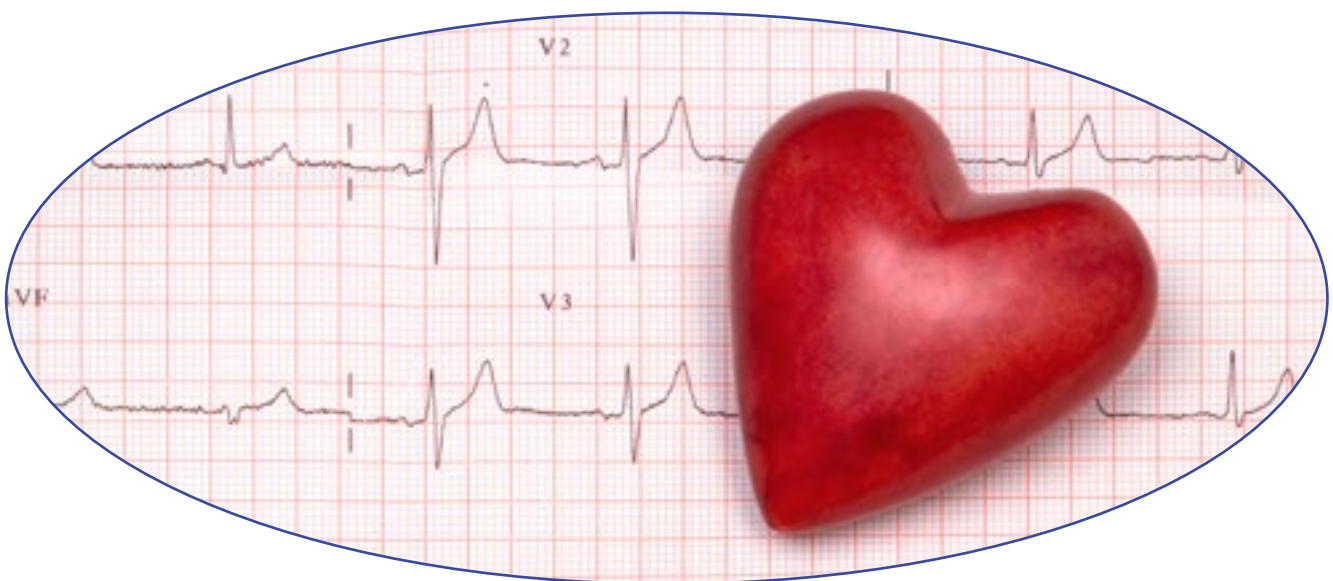


# Diabetes

Most of the food you eat is turned into glucose, or sugar, for your body to use for energy. The pancreas, an organ near the stomach, produces a hormone called insulin. Insulin takes the sugar from the blood into the cells. When your body does not produce enough insulin and/or efficiently use the insulin it produces, sugar levels rise and build up in the bloodstream. When this happens, it can cause two problems: the body's cells may be starved for energy, and over time, high blood sugar levels may damage the eyes, kidneys, heart and nerves.

Type 2 Diabetes is the most common form of diabetes. In Type 2 Diabetes, either the body does not produce enough insulin or the cells ignore the insulin. This causes blood sugar to rise to dangerous levels. Often, people with Type 2 Diabetes have no symptoms.

What does diabetes have to do with strokes? If you have diabetes, you're much more likely to have stroke, heart disease or a heart attack. In fact, two out of three people with diabetes die from stroke or heart disease. But you can cut your chances of having these problems by taking special care of your heart and blood vessels.



# Diabetes

## What are the risk factors for Type 2 Diabetes?

- Diabetes is more common in African-Americans, Asian-Americans, Latino/Hispanic-Americans, Native Americans and Pacific Islanders. (However, Type 2 Diabetes is seen across all race/ethnic groups.)
- Age over 45 (The older one gets the higher the risk. However, more and more children are being diagnosed with Type 2 diabetes.)
- Overweight/Obesity
- Inactive lifestyle
- Women who developed diabetes during pregnancy (gestational diabetes) or gave birth to a baby weighing over 9 pounds
- Having other health problems, such as high blood pressure
- Smoking and excessive alcohol consumption (The American Heart Association recommends limiting alcohol intake to no more than two drinks per day for men and one drink per day for women. One drink equals a 12 oz. beer, a 4 oz. glass of wine, 1.5 oz. of 80-proof liquor or 1 oz. of 100-proof liquor.)

## Diabetes

You can lower your risk of having a stroke by keeping your blood glucose (sugar), blood pressure and cholesterol on target with meal planning, physical activity and medication. Every step you take will help. The closer your numbers are to your targets, the better your chances of preventing a stroke. Your physician may perform a lab test called a hemoglobin A1c. This test measures your average blood glucose control for the past 2 to 3 months.

### patient note:

**My blood sugar level is:** \_\_\_\_\_

**My target blood sugar level is:** \_\_\_\_\_

**My hemoglobin A1c (HgbA1c) is:** \_\_\_\_\_

## Atrial Fibrillation

Atrial fibrillation is a condition that causes the upper chambers of the heart, called the atria, to beat irregularly (quiver) instead of beating effectively. This causes blood flow to slow down and pool in parts of your heart. This blood can form clots.

If a clot breaks loose and enters the bloodstream, it can lodge in an artery that leads to the brain and cause a stroke. Untreated atrial fibrillation causes a 4-5 fold increase in stroke risk. Treatment for atrial fibrillation can include medication, non-surgical procedures and surgical procedures.

Some people with atrial fibrillation have no symptoms, and their condition is only detectable upon physical examination. Others may experience one or more of the following symptoms:

- rapid and irregular heartbeat
- fluttering or “thumping” in the chest
- dizziness
- shortness of breath
- anxiety
- weakness
- faintness or confusion
- fatigue when exercising
- sweating
- chest pain or pressure.

Note: Chest pain or pressure is a medical emergency. You may be having a heart attack.  
Call 911 immediately.

## patient note:

**My physician has prescribed the following medication(s) for my atrial fibrillation:**

# Stroke Nutrition Therapy

- This eating plan is low in sodium (which comes mostly from salt).
- You should eat 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.
- You should eat heart-healthy kinds of fat to reduce the buildup of plaque in your blood vessels.
- If you need to lose weight, following the plan can help you because it limits the high-fat foods and refined carbohydrates.
- Everyone who has had a stroke should talk to their physician 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 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.



# Stroke Nutrition Therapy

- 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.
- Have fat-free and low-fat dairy products. These will help you get the calcium and potassium that your body needs.
- 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 equals a 12 oz. beer, a 4 oz. glass of wine, 1.5 oz. of 80-proof liquor or 1 oz. of 100-proof liquor.)

## Tips to Control Blood Cholesterol Levels:

- Eat very little saturated fat and trans fat. These types of fat can raise the low-density lipoprotein, or LDL (“bad”), cholesterol in your blood.
  - Saturated fat is found in foods from animals, such as fatty meats, whole milk, butter, cream and other dairy foods made with whole milk. It is also in tropical oils (palm, palm kernel and coconut).
  - Trans fat is found in all foods made with hydrogenated oils. It may be in fried foods, crackers, chips and foods made with shortening or stick margarine.

# Stroke Nutrition Therapy

- Choose unsaturated fats (heart-healthy fats), such as soybean, canola, olive or sunflower oil. Liquid or soft tub margarines also are fine.
- Keep the total amount of fat that you eat to less than 25% to 35% of the calories that you get from food and drink.
- Limit the cholesterol that you get from food to 200 mg of cholesterol per day. Foods high in cholesterol include egg yolks, fatty meats, shrimp and dairy foods.
- Get 20-30 grams of fiber per day:



- High-fiber foods include fruits, vegetables and whole grains. Aim for 2 cups of fruit, 3 cups of vegetables and 3 oz. of whole grains per day.
  - Soluble fiber is especially good for you. You can get it from oatmeal, dried beans and peas.
  - As you add fiber to your eating plan, you should also drink more water or other fluids. This will help your body process the fiber without discomfort.
- 
- Eat cold-water, fatty fish (such as salmon, tuna, mackerel and sardines) twice a week. These fish provide omega-3 fats, which are heart healthy. Be aware, however, that canned fish can be high in sodium. Choose fresh or frozen fish, or buy low-sodium canned types.
  - Add ground flaxseed or flaxseed oil to food, or eat walnuts. These plant foods are also high in omega-3 fats.

## **DASH Diet**

### **(Dietary Approaches to Stop Hypertension)**

The DASH diet is a diet to help reduce high blood pressure. It is based on research that has shown that eating a diet that is low in saturated fat, sodium and total fat and rich in whole grains, vegetables and fruits can lower blood pressure significantly. It may seem overwhelming to change a lifetime of eating habits, but making a few changes over a couple of days or weeks is often easier than changing your entire diet at once.

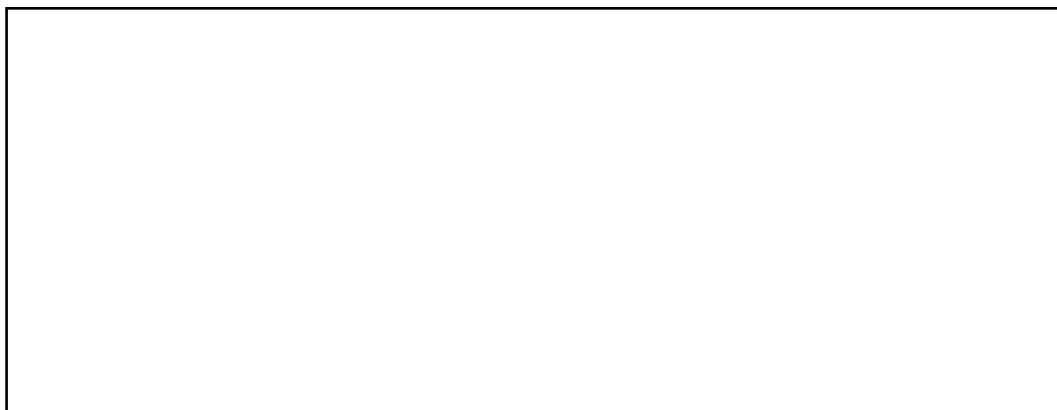
Suggestions for making healthier changes to your diet include:

- If you don't eat fruit now, add a serving to your meals or have it as a snack.
- Increase your use of fat-free and low-fat milk products to three servings a day.
- Limit lean meats to 6 oz. total per day. Have 3 oz. per meal (3 oz. is about the size of a deck of cards.)
- Include two or more vegetarian-style (meatless) meals each week.

If you would like more information about the DASH diet,  
please ask to speak with a dietitian.

## **patient note:**

### **Recommendations for my diet:**



# Medications

Your doctor may prescribe medications called antiplatelets or anticoagulants. Both are important in preventing recurrent strokes by keeping a clot from forming or stopping the growth of one.

- **Antiplatelet Medications (blood clot preventative)**

Blood platelets are actually fragments of cells. This means they don't contain all the necessary cellular equipment. When a person gets a cut or scratch, the platelets release a chemical called thromboxane. This chemical signals other platelets to form a clot to stop the bleeding. If the blood becomes too thick, the risk of stroke or heart attack increases.

Antiplatelet medications keep the blood thin and prevent blood clots from forming by inhibiting the production of the chemical thromboxane. Examples of antiplatelet medications include aspirin, Plavix®, and Aggrenox®. These medications should not be stopped without first talking to your physicians. It is also important to tell all physicians treating you that you take these medications.

- **Anticoagulant Medications (blood thinning)**

Anticoagulants are blood thinners that delay the clotting of blood. They make it difficult for clots to form or keep existing clots from enlarging in your blood vessels. Examples of anticoagulants include Coumadin® (warfarin), Pradaxa®, and Heparin. While these drugs are more effective preventing clots in people with atrial fibrillation, they may have side effects, including bruising or bleeding.

## Medications

Coumadin® (warfarin) comes in the form of a pill that must be taken once a day at the same time each evening. Anticoagulant therapy requires regular blood tests to ensure the correct drug dose. A weak dosage increases the risk of stroke and heart attack, but too much may cause bleeding. Careful follow up with your primary care physician is essential for people taking these medications. It also is important to tell other physicians and dentists that you are taking anticoagulants.



Changes to your diet also may affect the way Coumadin® works. Because warfarin competes with vitamin K, patients taking it should consult their doctors about possible dietary restrictions. Even some vegetables might cause an imbalance if eaten in excess.

One of the signs of too much antiplatelet or anticoagulant medication is bleeding, so you should be aware of the signs and symptoms of internal bleeding. Call your doctor right away if any of these signs and symptoms are present: excessive bleeding from your gums while brushing your teeth, frequent and severe bruising, nose bleed for no reason, dark or bloody urine, black or tarry stools or obvious blood in your stools and unusual bleeding.



# Taking Medications

Here are some tips for taking your medications. Most medicines need to be taken every day even if you feel fine. Ask your doctor or nurse about any special issues you should be aware of concerning your medications.

- Use reminders to make sure you take your medications at the same time each day.
- Make sure to plan ahead and refill your prescriptions before they run out.
- Don't forget to bring your medications when you travel.
- Never stop taking a medication or change your dosage without talking to your primary care physician first.
- If you miss a dose of your medication, don't take two pills when it's time for the next dose.
- If you think you are having a side effect to your medication, be sure to tell your primary care physician.
- Carry an up-to-date list of all your medications, and bring it with you each time you visit your primary care provider.
- The pharmacy where you fill your prescriptions also should know about all the medications you are taking. This will help prevent any potential medication reactions.
- Using a pill box can help ensure you take all your medications properly every day. You can ask a friend or relative to assist in filling the box correctly, if you are having difficulty.
- Contact your physician if you experience difficulty swallowing your pills.

## Life After a Stroke

While every type of stroke is different, some type of physical limitation is common. You may experience physical, emotional and behavioral challenges, as well as difficulty with communication. It may be helpful to set reasonable step-by-step goals regarding these areas of your life.

- Recover as much of your mobility and independence as possible.
- Prevent falls by staying safe when returning to activities.
- Live your life as fully and comfortably as possible following your stroke.

Physical challenges may include paralysis, which causes a person to become unaware of one side of their body, fatigue, vision problems, swallowing difficulties and pain. The types of limitations that you may experience will depend on the area of the brain in which the stroke occurred.

Depression is the most common emotional change after stroke. Changes in thinking also can occur, leading to difficulty solving problems. Anxiety, frustration, and rapid mood changes also are common following a stroke. These emotions are normal and often helped by talking to someone and acknowledging your feelings. If you think you or your loved one is suffering from depression, please talk to your physician or nurse about possible treatments available to you.

## Swallowing Difficulties

Immediately following a stroke, some people may experience a swallowing disorder called dysphagia. Dysphagia may cause you to have difficulty swallowing or the inability to swallow at all. Signs of dysphagia include coughing or choking immediately after eating or drinking. When this occurs, food particles or liquid can enter the lungs and pneumonia can develop. While in the hospital, please follow the provided directions when feeding yourself or your loved one.

If you or your loved one is experiencing dysphagia, a speech therapist will work with your physician to develop a treatment program to help you with any swallowing difficulties. As thin liquids are hard to swallow safely, the therapist may recommend thickened liquids, so it moves more slowly and stays together. Some other recommendations may be to sit up straight when eating or drinking, take your time and take small bites and sips. Please ask your speech therapist, nurse or a dietitian for specific details on any special food modifications you made need.

## patient note:

**My swallowing guidelines are:**

**My diet is:**

## Communication Challenges

### – Aphasia:

Aphasia is a language disorder that affects the person's ability to communicate. Aphasia is most often the result of a stroke affecting the left side of the brain, which controls language. Aphasia may manifest itself as trouble speaking, trouble finding words and understanding what others say. There also may be difficulty with reading, writing or math. Aphasia does not mean the person is less intelligent. The problem is they are unable to use language to communicate what they know.

Receptive aphasia occurs when the person is unable to follow directions or has difficulty understanding questions. Some tips for making communicating with your loved one easier include:

- Using simple gestures
- Simplifying instructions even to one word
- Speaking slowly
- Asking him/her to perform tasks one step at a time
- Checking for comprehension frequently. (Don't assume that he or she understands.)

## Communication Challenges

When expressive aphasia is present, there is a limited ability to use words. The person may say words they don't mean, like saying "no" for "yes."

Some tips for making communicating easier include:

- Using a communication board
- Giving extra time for the person to answer
- Giving written choices
- Using yes/no questions
- Asking the person to point or gesture
- Having the person fill in the blank (e.g., Would you like a cup of \_\_\_\_\_?).

## patient note:

**My communication strategies include:**

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## Communication Challenges

- **Dysarthria:**

Dysarthria is another communication and speech problem that can occur after a stroke. Dysarthria affects how the words are spoken. While this can occur with aphasia, it is not the same and can occur alone. Dysarthria can affect the pronunciation of sounds, the quality and loudness of the voice and the ability to speak at a normal rate. The exact speech problems will differ from person to person, depending on stroke's location and severity. People with dysarthria will usually benefit from speech therapy.

Some tips for improving communication with the person experiencing dysarthria include:

- Avoid talking in noisy environments.
- If possible, provide face-to-face communication.
- Ask the person to speak slowly.

## patient note:

**My speech strategies are:**

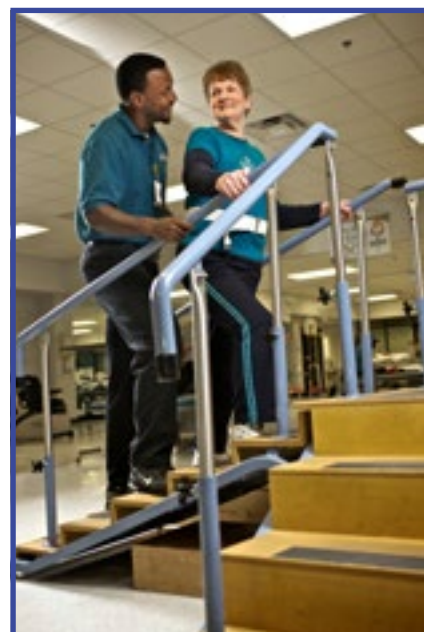
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# Post-Stroke Rehabilitation

Rehabilitation is a critical part of the recovery of a stroke survivor. North Oaks Health System's goal is to help stroke survivors attain the best possible quality of life and become as independent as possible regarding daily activities. Post-stroke rehabilitation should start as soon as the patient has been deemed stable by their physician. While rehabilitation does not reverse the effects of stroke, it can assist in helping achieve the patient's highest level of function. Rehabilitation assists patients with learning new ways to accomplish day-to-day activities.

You may experience some of the following problems after your stroke:

- **Problems with Movement**
  - Inability to move on one side of your body or **hemiplegia**
  - Weakness on one side of your body or **hemiparesis**
  - Inability to coordinate movement or **ataxia**
- **Sensory Problems**
  - Pain or loss of sensation
- **Communication Problems or Aphasia**
  - Difficulty understanding spoken and written language
  - Difficulty expressing thoughts and needs
- **Emotional Problems**
  - Anxiety, fear, frustration, anger and grief



# Post-Stroke Rehabilitation

You may be taken care of by the following North Oaks Rehabilitation Team Members:

- **Physicians**
  - Manage the care of patients
- **Nurses**
  - Educates patients on routine health care, such as medication schedules, skin care and practices that can reduce the likelihood of a recurrent stroke
- **Physical Therapists**
  - Treat mobility and sensory impairments
  - Address strength, flexibility, endurance and sensory deficits
- **Occupational Therapists**
  - Address activities of daily living, including grooming and personal meals
  - Treat upper body strengthening and flexibility
- **Speech-Language Pathologists**
  - Address communication and swallowing problems
- **Dietitians**
  - Monitor nutritional needs of patients
- **Social Workers/Case Managers**
  - Coordinate services/equipment needs and discharge destinations





# Post-Stroke Rehabilitation

You may progress through the following settings:

- **Inpatient Acute Therapy** - In this setting, a team is dedicated to assisting the patient in starting the initial phases on the road to recovery. Patients receive around-the-clock care in order to ensure all individual needs are being met.
- **Inpatient Rehabilitation Therapy** - In this setting, patients continue to receive 24-hour care; however, there is a shift made to focus more on the therapy needs of the patients. Patients receive intense therapy at least 3 hours a day, 15 hours a week in an effort to further build upon the care received in the inpatient acute setting.
- **Outpatient Care** -
  - **LINK** - In this setting, also known as a day rehabilitation program, patients can receive the therapy necessary to transition from inpatient to outpatient therapy. Patients continue to receive several hours of quality care, 5 days a week and are able to return home each day.
  - **North Oaks Outpatient Rehabilitation Services** - In this setting, patients continue to be afforded all of the therapy services needed with a team focus on assisting the patient reach their highest level of function. Therapy sessions are based on each patient's individual needs. Like the LINK Program, patients return home each day.



# Recovery After Stroke: Bladder & Bowel Function

Problems with bladder and bowel function are common but distressing for stroke survivors.

“Going to the bathroom” after suffering a stroke may be complicated by:

- Urinary incontinence –being unable to control your urination.
- Urinary retention – trouble urinating or not completely emptying your bladder.
- Constipation – being unable to have a regular bowel movement.
- Bowel incontinence – being unable to control your release of stool.

These issues occur when stroke has damaged the part of the brain that controls waste removal or the brain signals for it. In some cases, an infection or other issue may be the problem.

## Urinary Incontinence

Soon after stroke, many survivors need to use a small flexible tube, called a catheter, to urinate. When they improve, the catheter is removed and they begin a regular urination pattern again. Most stroke survivors do regain control of their bladders and urinate normally. Others continue to suffer from urinary incontinence and are unable to control their urination.

## Treatments

Treatments vary depending on the cause of your problem. Some feel the urge to urinate but cannot hold it until they reach the bathroom.

### Some tips that may help:

- Go to the bathroom at regular times to help train your bladder. Urinating every 2-3 hours – whether you feel the urge or not – can help prevent accidents.
- Get help from others as soon as you feel the urge to urinate. They may be able to get you to the bathroom in time.
- Drink plenty of fluids during the day and limit them in the evening. This will reduce the number of times you have to go to the bathroom at night.
- Limit caffeine and alcohol at night.
- Ask your physical therapist to help you strengthen the muscles around your bladder. Pelvic floor muscle exercises, called Kegel exercises, may help. These exercises were designed to improve urine control in women after childbirth. They may help you as well.
- Make sure that you have privacy and plenty of time to sit on the toilet or commode chair.

# Recovery After Stroke: Bladder & Bowel Function

## Urinary Retention

Also common among stroke survivors is urinary retention. This is when you do not completely empty your bladder. If untreated, it can lead to bladder stones, reflux (reverse flow of urine back to the kidneys) or a urinary tract infection (UTI).

A UTI needs immediate treatment, so see your doctor as soon as you notice symptoms.

### **UTI symptoms include:**

- Urine with a bad smell, cloudiness, blood or sediment (solid deposits).
- Burning when urinating or around a catheter.
- Fever and chills.
- Cramps in lower abdomen or side.
- Pain in lower back.
- Frequent urination or feeling like you have to go to the bathroom even though your bladder is empty.

## Treatments

Special treatments may be needed for conditions that cause urine retention. In these cases, your doctor may prescribe a drug such as Ditropan®, Levsin® or Cystospaz®. Inform your doctor of other drugs you are taking, because they may be the cause of your urinary-retention.

## Ongoing Problems

You may still have problems, despite all attempts to correct.

- Use a catheter if needed. Ask your doctor which type is best for you.
- Try pantliners, waterproof underpants or disposable adult diapers. Be sure to carefully clean and lubricate the urinary area to avoid skin irritations. Also, drink plenty of water to dilute your urine.

# Recovery After Stroke: Bladder & Bowel Function

## Constipation and Bowel Incontinence

Constipation and bowel incontinence (involuntary release of stool) may result from:

- Reduced fluid intake.
- Diet.
- Not moving around enough.
- Side effects from prescription drugs.
- Being unaware that you need to use the bathroom.
- Weakness in the muscle that holds a bowel movement until you reach a bathroom.
- Being unable or reluctant to ask for help.

To prevent problems, plan ahead and take extra efforts to retrain the bowel.

## Useful Tips

- Schedule a predictable pattern. It is important to restore a regular schedule of bowel movements at established times as soon as possible. Opportunities to use the bathroom should be planned according to previous bowel habits.
- Give yourself privacy.
- The sitting position allows you to lean forward, aiding the process.
- Be active during the day to stimulate the process of bowel movement.
- Eat healthy foods to reduce constipation and improve bowel control.

## Treatments

If problems persist, your doctor may suggest one of these drugs or treatments:

- A stool softener or bulk agent, called a suppository. Shaped like a bullet, suppositories are inserted into the anus 30 minutes after a meal to stimulate a bowel movement. At first, you may need a strong suppository. As your pattern changes, you can switch to a more mild form (*such as glycerin*).
- When using suppositories, you should drink more liquids than usual. Never use them for a long period of time.
- Enema or shot of liquid put into the rectum through the anus. Do the enema at a set time every day (usually morning or evening) and adhere to your schedule. If enemas cause bleeding or abdominal pain, consult your doctor right away.
- Oral Laxatives maybe helpful in some cases, but be aware that their action times can be unpredictable and they can cause incontinence in a person with poor bowel control.

# Recovery After Stroke: Bladder & Bowel Function

## What Can Help

- Talk with your doctor about symptoms and treatments.
- Be kind to yourself and remember that you are not alone. Many people have – and are embarrassed by – these issues.
- Get information on stroke recovery from National Stroke Association.
- Visit [www.stroke.org](http://www.stroke.org) or call 1-800-STROKES (1-800-787-6537).
- Contact your local stroke association.
- Join a stroke support group. Other survivors will understand your issues, and offer support and ideas to manage your bladder and bowel movement problems.
- Speak honestly with your caregivers about these issues. They'll be glad you did, and together you can work out the best solution.

## Professionals Who Can Help

- A general physician or doctor
- Urologist, a doctor who specializes in diseases of the urinary systems.
- Gastroenterologist, or a specialist in medical problems of the stomach, intestines and associated organs.
- Many nurses are trained to deal with continence problems.
- Physiotherapists can provide training and exercises to improve walking and transferring from a bed or chair to a commode or toilet
- Occupational therapists can help if your home needs to be adapted or equipment is needed to make it easier for you to use the toilet.
- Social workers can help with financial issues. They can with grants to adapt the bathroom or to build a new one, and can also arrange for a variety of support services, such as walking aids or wheelchairs.



Rehabilitation is a lifetime commitment and an important part of recovering from a stroke. Through rehabilitation, you relearn basic skills such as speaking, eating, dressing and walking. Rehabilitation can also improve your strength, flexibility and endurance. The goal is to regain as much independence as possible. Remember to ask your doctor, **“Where am I on my stroke recovery journey?”**

*Note: This fact sheet is compiled from general, publicly available medical information and should not be considered recommended treatment for any particular individual. Stroke survivors should consult their doctors about any personal medical concerns. NSA publications are reviewed for scientific and medical accuracy by the NSA Publications Committee. © National Stroke Association, 2006 IO7 2/06*

## Being a Caregiver

Being a caregiver can be a satisfying experience, but also can be stressful. Some family members may not feel comfortable in their new roles as caregivers. In order to provide the best care for your loved one, it is important that you be in the best possible health yourself. That means maintaining a healthy diet, getting regular physical activity, avoiding tobacco and continuing to do the things you enjoy.

Your emotional and psychological health can impact your physical health. It is important to recognize the symptoms of caregiver “burnout,” and seek help if needed. Symptoms of caregiver “burnout” can include:

- Changes in appetite (either too much or too little)
- Depression (lack of energy and feelings of hopelessness)
- Thoughts of death
- Trouble falling asleep or staying asleep
- Difficulty with concentration and missing appointments.

Case managers, social workers, physicians and nursing staff are available to help you, your family and caregivers through this difficult time. Please notify your nurse or physician if you would like to speak to anyone about this new role in your life.

# Stroke Prevention

A very important step in preventing another stroke is modifying your personal risk factors. It is also important for your loved ones and friends to be aware of their risk factors for stroke.

## National Stroke Association's Stroke Prevention Guidelines:

1. Know your blood pressure. If it is high, work with your doctor to lower it.
2. Find out if you have atrial fibrillation. If you do, work with your doctor to manage it.
3. If you smoke, stop.
4. If you drink alcohol, do so in moderation. Heavy drinking may actually increase your risk for stroke.
5. Know your cholesterol number. If it is high, work with your doctor to control it.
6. If you are diabetic, follow your doctor's advice carefully, and get your blood sugar level under control.
7. Include exercise in your daily routine.
8. Enjoy a lower sodium (salt), lower fat diet.
9. Ask your physician if you have circulation (blood flow) problems which increase your stroke risk. If so, work with your doctor to control them.
10. **If you have any stroke symptoms or see them in someone else, call 911.**

## **“Dial, Don’t Drive!”**

### **Dial 911 for Emergency Services**

- Every minute counts! Acting FAST by calling 911 when stroke symptoms occur could save your life.
- Calling 911 is almost always the fastest way to get lifesaving treatment. Emergency Medical Services (EMS) staff can begin treatment when they arrive. People with stroke symptoms who arrive by ambulance usually receive faster treatment at the hospital as well.
- If you cannot access the EMS/911, have someone drive you to the hospital right away. If you are the one having symptoms, do not drive yourself unless you have absolutely no other option.





# patient note:

## Contact Information

Please write down your important discharge information in the spaces below. You may want to share this contact information with friends and family members.

### Physician Treating Me for Stroke Issues:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: \_\_\_\_\_ Phone #: (     ) \_\_\_\_\_

Email: \_\_\_\_\_

Website Address: \_\_\_\_\_

### Pharmacy:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: \_\_\_\_\_ Phone #: (     ) \_\_\_\_\_

Email: \_\_\_\_\_

Website Address: \_\_\_\_\_

### Other Physicians or Health Care Providers:

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# Stroke Resources

## Magazines:

- Stroke Smart  
National Stroke Association  
9707 E. Easter Lane, Suite B  
Centennial, CO 80112  
1-800-STROKES [787-6537]
- Stroke Connection  
American Stroke Association  
Subscribe or renew by phone.  
1-888-4-STROKE (1-888-477-7653)

## Online:

- American Stroke Association: [www.strokeassociation.org](http://www.strokeassociation.org)
- National Stroke Association: [www.stroke.org](http://www.stroke.org)
- Stroke Family: [www.strokefamily.org](http://www.strokefamily.org)

## Stroke Family Warmline:

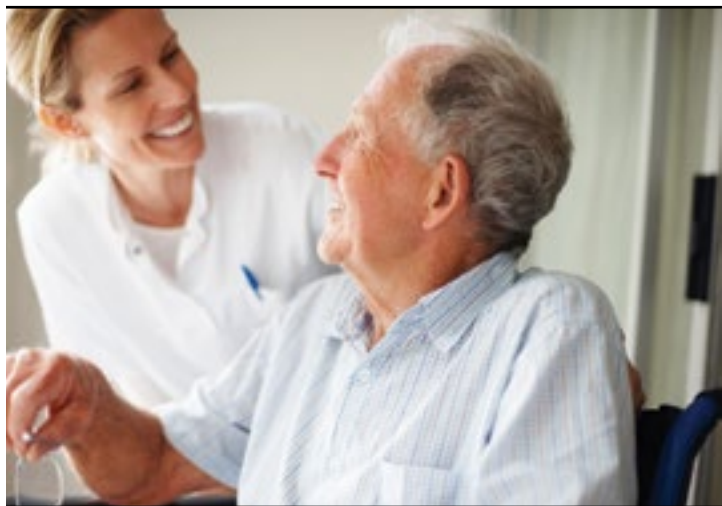
Although everyone at the American Stroke Association's Call Center is qualified to answer questions about stroke, the Warmline team members have some particularly special experience. Either they are stroke survivors themselves or have a family member who is. They can help provide support and helpful information or just a listening ear. To reach the Warmline Team, call: 1-888-4-STROKE (1-888-478-7653).

## Making This Plan a Part of Your Life

Living with the effects of a stroke is a chronic condition and requires regular follow ups with a primary care physician. If you do not have a physician you see on an ongoing basis, please ask the physician treating you in the hospital to assist you in finding a solution. The Case Manager and Social Worker also can assist you with this process. If you are having trouble sticking to your treatment plan, please talk with your nurse or primary health care provider for help!

### The Challenges People Often Experience Are:

- Cost of medications
- Communication issues
- Depression
- Caregiver issues.



**We can help you, and we want to help. Please talk with your primary health care provider or nurse about your questions and concerns. We can work together to find solutions!**

**We are here for you!**

## References

- American Heart Association/American Stroke Association
- American Diabetes Association
- American Dietetic Association
- Centers for Disease Control and Prevention
- National Stroke Association
- U.S. Department of Health and Human Services

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## Notes

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## Notes

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