

Stroke Patient Education Guide

Stroke Book

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Introduction

Welcome to Bronson

When you or a loved one hears the word stroke, we know that you may feel nervous and afraid. We want you to know that you are in the best place for your recovery. Bronson's approach to stroke care is focused on you, the patient. We will partner with you and your family to set and meet realistic goals and get you on the way to recovery.



One of the reasons for our high quality patient outcomes is our unique team approach to meet your recovery needs. Your team includes:

- You and Your Family
- Doctors and Nurses
- Registered Dietitians
- Physical and Occupational Therapists
- Speech-Language Pathologists
- Pharmacists
- Respiratory Therapists
- Medical Social workers
- Case Managers
- Chaplains

Recovery is a journey. Use this book as a guide for your journey to recovery.

As you review this book, consider some questions that may help you better understand your stroke and the recovery process:

What do I do if I experience stroke symptoms at home? (see page 4)

What type of stroke do I have? (see pages 5-6)

- € Ischemic
- € Hemorrhagic or bleeding stroke

What are my risk factors for stroke? (see page 8)

- € High blood pressure
- € High cholesterol
- € Diabetes
- € Atrial fibrillation
- € Smoking or tobacco use
- € Alcohol use
- € Obesity
- € Inactivity
- € Age
- € Family history
- € Personal history of previous TIA or stroke

What are my stroke symptoms? _____

What medications do I take that decrease my risk for another stroke? _____

What questions do I have for my doctors or nurses about my stroke diagnosis, testing, or recovery?

My expectations of recovery are: _____

My doctors' expectations of my recovery are: _____

Where will I be getting rehabilitation therapies? _____

If you have any questions along the way feel free to ask any of your care givers.

Warning Signs of Stroke

Recognizing stroke is the first critical step in getting the treatment you need. The American Stroke Association recommends remembering the acronym “FAST” to recognize and respond to stroke.



- **F= Face:** Ask the person to smile. Does one side of the face droop?
- **A= Arm:** Ask the person to raise both arms. Does one drift downward?
- **S= Speech:** Ask the person to repeat a simple phrase. Does the speech sound slurred or strange?
- **T= Time:** If you observe any of these signs, it's time to call 9-1-1

BEYOND F.A.S.T – OTHER SYMPTOMS YOU SHOULD KNOW

- Sudden numbness or weakness of the leg
- Sudden confusion or trouble 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

What do you do if you think someone is having a stroke?

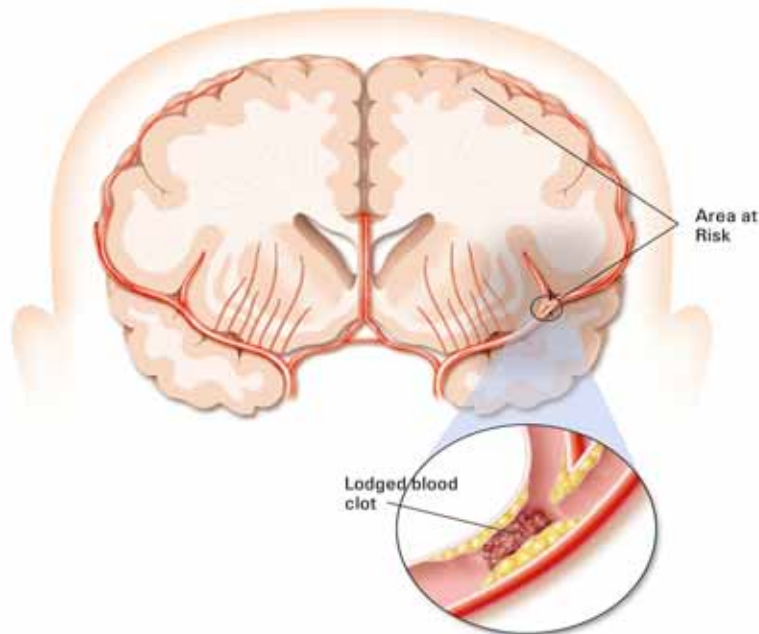
Immediately call 9-1-1 so an ambulance can be sent. While you are waiting for help to arrive, determine when the last time you or someone else saw your loved one without symptoms. Their “last known well” time will help the treatment team at the hospital decide on which treatments are best.

What Is a Stroke?

A stroke happens when blood flow to the brain stops. There are two types of stroke: ischemic and hemorrhagic.

- **Ischemic stroke** is caused when plaque or clots block a blood vessel in your brain or neck.
- **Hemorrhagic stroke** is caused when a vessel in your brain breaks causing bleeding in the brain.

Ischemic strokes are the most common type of stroke. They are caused by a blood clot that travels through the bloodstream to the brain. They can also be caused by the build-up of plaque in the arteries of the brain. When the artery is blocked, oxygen rich blood can no longer reach the brain tissue, and it begins to die.



TIA (Transient Ischemic Attack): A TIA happens when there is a brief interruption of blood flow to the brain. Your symptoms may go away, but you should see a doctor right away. TIA is a warning that a stroke may be coming. Your stroke risk increases once you have had a TIA. Medical attention can help to treat your risk factors and help to prevent a stroke.

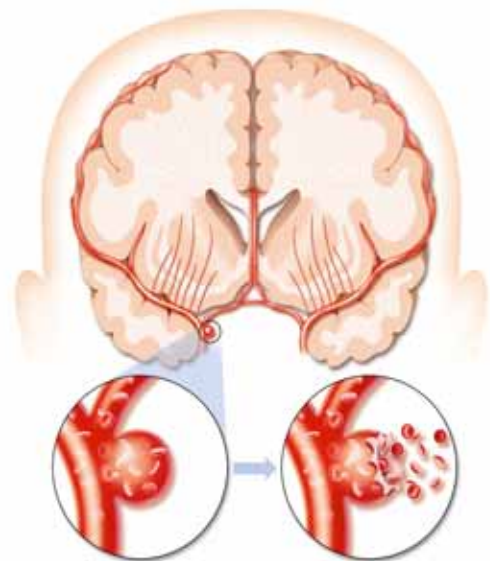
A hemorrhagic stroke is when a weakened blood vessel bursts or leaks blood into the brain. There are two types of hemorrhagic stroke:

- Intracerebral (ICH) hemorrhage is when the blood is in the brain's tissue
- Subarachnoid (SAH) hemorrhage is when the blood is around the brain's surface, but under the protective layer (dura).

Warning signs of hemorrhagic stroke include:

- Sudden onset of severe headache. Often described as the “worst headache of my life.”
- Vomiting or severe nausea, especially with other symptoms such as headache.
- Sudden numbness or weakness of the face, arm or leg, especially on one side of the body.
- Loss of consciousness or confusion, especially when combined with a severe headache.

Intracerebral hemorrhage is the most common type of hemorrhagic stroke. This type of stroke happens when a weakened spot on a blood vessel breaks and leaks blood into the surrounding brain tissue. As an aneurysm grows, the blood vessel wall becomes thinner and weaker, increasing its risk of rupturing. If it bursts, blood can no longer move through the vessel to supply the brain with oxygen rich blood and the brain tissue begins to die. The most common cause of this type of stroke is high blood pressure.



Aneurysm

Ruptured Aneurysm

Subarachnoid hemorrhage is typically caused by a burst aneurysm on the surface of the brain. Blood builds up over the surface of the brain and begins to push on the brain tissue. Treatment may include clipping or coiling of the aneurysm. Clipping involves putting a clip on the outside of the vessel to seal off blood flow. Coiling involves going in through the inside of the vessel with a small catheter and placing small coils inside of the aneurysm. This will close it off and stop the bleeding.

What Are Stroke Risk Factors for You and Your Family?

You now know the symptoms of stroke and what to do if you see the symptoms of stroke. You may now consider how you can prevent having one. There are ways you can control your risk for having a stroke. Healthy lifestyle choices and taking prescribed medicine will help to reduce your risk. Take a minute to assess your risk of stroke with the National Stroke Associations Stroke Risk Assessment Tool.

Risk Factor	High Risk	Caution	Low Risk
Blood Pressure	Over 140/90 -or- I don't know	120-139/80-89	Under 120/80
Cholesterol	Over 240 -or- I don't know	200-239	Under 200
Diabetes	Yes	Borderline	No
Smoking	I still smoke	I'm trying to quit	I am a non-smoker
Atrial Fibrillation	I have an irregular heartbeat	I don't know	My heartbeat is not irregular
Diet	I am overweight	I am slightly overweight	My weight is healthy
Exercise	I am a couch potato	I exercise sometimes	I exercise regularly
I have stroke in my family	Yes	Not sure	No
Score:			

Each box above is worth one point. Add your score each column to assess your risk.

- If your high-risk score (red boxes) is 3 or more, please ask your doctor about stroke prevention right away.
- If your caution score (yellow boxes) is 4-6 you're off to a good start. Keep working on it!
- If your low risk score (green boxes) is 6-8, you're doing well to control your stroke risk.

Reducing your risk

1. Know your blood pressure. If high, work with your doctor to lower it.
2. Find out from your doctor if you have atrial fibrillation (irregular heartbeat).
3. If you smoke, stop.
4. If you drink alcohol, no more than two drinks per day.
5. Find out if you have high cholesterol. If so, work with your doctor to control it.
6. If you are diabetic, follow your doctor's advice carefully to control your diabetes.
7. Include exercise in the activities you enjoy in your daily routine.
8. Enjoy a lower salt, lower fat diet.
9. Ask your doctor how you can lower your risk for stroke.

Stroke is preventable. Learning how to control your risk factors is one of the best ways you can prevent a stroke. There are risk factors that you can control and risk factors that you cannot control. By controlling the risk factors you can, you may greatly reduce your stroke risk.

Controllable Risk Factors

Each year, about 795,000 people in the United States suffer a stroke. About 80% of strokes are preventable. Many of the conditions that place you at higher risk for stroke can be managed with the help of your healthcare team. Controllable risk factors include:

- Blood pressure levels
- Atrial fibrillation
- Cholesterol levels
- Diabetes

There are also lifestyle choices that can put us at higher risk for stroke. These include:

- Tobacco use or smoking
- Alcohol use
- Obesity

The following pages can help you learn how to manage your stroke risk. Let your healthcare providers know if you have any questions or need more information on any of these topics.

High Blood Pressure

Also known as hypertension, high blood pressure is the number one cause of stroke. Many people who have high blood pressure do not realize it because they do not have any symptoms. Have your blood pressure checked at least once a year to be sure your blood pressure is at a safe level.

What do the blood pressure numbers mean?

Two numbers are used to define blood pressure. The top number is called the systolic blood pressure. This is the pressure in the arteries when the heart beats (contracts). The bottom number is called the diastolic blood pressure. This is the pressure in the arteries when the heart relaxes.

My blood pressure is: _____

There is a blood tracking sheet available to use on page 40 of this book.

What is the American Heart Association recommendation for a healthy blood pressure?

This chart shows the American Heart Association blood pressure categories. Keeping your blood pressure at a normal level can help to reduce your risk of stroke.

Blood Pressure Category	Systolic mm Hg (upper #)		Diastolic mm Hg (lower #)
Normal	less than 120	and	less than 80
Prehypertension	120 – 139	or	80 – 89
High Blood Pressure (Hypertension) Stage 1	140 – 159	or	90 – 99
High Blood Pressure (Hypertension) Stage 2	160 or higher	or	100 or higher
<u>Hypertensive Crisis (Emergency care)</u>	Higher than 180	or	Higher than 110

*Your doctor should evaluate low blood pressure readings.

If I have high blood pressure, what can I do to control it?

There are 8 main ways to control your blood pressure. They include:

- Eating a better diet by including fresh fruits and vegetables. Keeping salt intake to less than 1500 mg a day may be helpful
- Enjoying regular physical activity.
- Staying at a healthy weight
- Managing stress.
- Avoiding tobacco smoke.
- Taking medications as directed.
- Limiting alcohol, if you drink.
- Hot tub safety.
 - Heat from hot tubs and saunas can cause your blood pressure to go up. Use caution if your doctor has asked you to avoid moderate exercise.
 - Do not move back and forth between cold and hot water, which can increase your blood pressure
 - You should not be under the influence of alcohol while in the hot tub.

Find more information on how to make healthy lifestyle changes to manage your blood pressure and reduce your risk of stroke in “Healthy Lifestyle Changes” starting on page 13.

Atrial fibrillation (AFib)

Atrial fibrillation is an irregular heartbeat that can lead to blood clot formation, stroke, heart failure and other heart-related complications. An estimated 2.7 million Americans are living with AFib. Sometimes people with atrial fibrillation do not have symptoms. Others may experience some of the common symptoms of atrial fibrillation which include:

- Rapid and irregular heartbeat
- Fluttering in the chest
- Dizziness
- Shortness of breath and anxiety
- Weakness
- Faintness or confusion
- Fatigue when exercising
- Sweating
- Chest pain or pressure (Call 9-1-1 if you have chest pain or pressure)

Treatment of Atrial Fibrillation

Having atrial fibrillation increases your risk of stroke. However, you can decrease your risk.

Some goals to help lower risk include:

- Keeping your resting heart rate at or below 100 beats per minute
- Restoring your heart to a normal rhythm if possible
- Preventing blood clots
- Managing risk factors for stroke

You can reduce your risk of problems from atrial fibrillation by living a healthy lifestyle.

This includes regular physical activity, a heart-healthy diet, managing high blood pressure, controlling cholesterol, maintaining a healthy weight, and avoiding alcohol, caffeine and smoking. More information on healthy lifestyle changes starts on page 13.

If you have atrial fibrillation, work with your healthcare provider to find out why and follow your treatment plan as closely as you can. To see more on atrial fibrillation, visit the American Heart Association website: www.strokeassociation.org

High Cholesterol

Cholesterol is a fat-like substance in blood that may lead to narrowing and clogging of your blood vessels. A cholesterol level is considered high when it is over 200. A low fat, low cholesterol diet can help lower your cholesterol level. Regular exercise, at least 30 minutes a day for at least 3 days a week, will strengthen your heart and lungs. This will also reduce your risk of cholesterol build-up in your arteries. Medicine may be needed to control your cholesterol levels. Follow your doctor's recommendations for cholesterol control.

To help lower your cholesterol levels:

- Limit total fat intake to less than 50 to 75 grams per day. Limit saturated fats and trans fats to less than 15 to 18 grams per day.
 - Choose lean meats. Remove fat and skin from chicken and turkey.
 - Avoid high fat meats such as bacon and sausage.
 - Use low-fat or fat-free milk, cheese and yogurt.
 - Use reduced-fat, whipped, or liquid vegetable spreads in place of stick margarine, butter or shortening.
 - Bake, boil, broil or sauté using a non-stick pan. Do not fry foods.
- Limit cholesterol intake to less than 200 milligrams per day.
 - Use egg substitute products in place of eggs.
 - Choose lean meats. Remove fat and skin from chicken and turkey.
 - Use low-fat or fat-free milk, cheese and yogurt.
 - Use vegetable fats and oils instead of butter or animal fat.
- Eat foods with heart-healthy fats (omega-3 fat)
 - Eat salmon, tuna, or mackerel twice a week.
 - Eat walnuts, and use canola and soybean oil.
- Eat foods that are high in fiber. Your goal for fiber intake is 20 to 35 grams per day.

Foods high in fiber include:

 - Fresh fruits and vegetables, 5 servings every day.
 - Foods made from whole grains, 3 servings every day.
 - Dried beans and lentils.

My cholesterol levels are: Total _____ LDL _____ HDL _____ Triglycerides _____

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, makes a hormone called insulin. This hormone is needed for the body to use glucose, the basic fuel for cells in the body. Insulin's role is to take sugar from the blood into the cells. When your body does not produce enough insulin and/or does not efficiently use the insulin it produces, sugar levels rise and build up in the bloodstream. This causes the cells to have a lack of energy and can cause damage to the eyes, kidneys, nerves or heart.

There are two types of diabetes: Type 1 and Type 2 diabetes. Both are inherited in genes, so a family history of diabetes strongly increases your risk of developing the condition. *Type 1 diabetes* happens when the pancreas makes little or no insulin. The body is not able to move the glucose from the blood to the cells, causing a rise in blood glucose levels. *Type 2* diabetes occurs when the body develops “insulin resistance” and can’t efficiently use the insulin it makes. The pancreas gradually loses its capacity to produce insulin.

Symptoms of diabetes include:

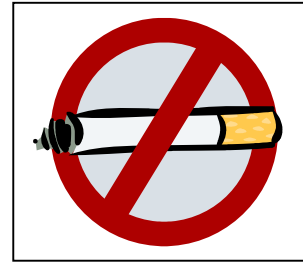
- Increased thirst
- Increased appetite
- Fatigue
- Increased urination, especially at night
- Weight loss
- Blurred vision
- Sores that do not heal
- Fruity odor or breath

Fortunately, you can help to control diabetes. One way is to limit simple carbohydrates in your diet. Simple carbs are found in foods like table sugar, cake, soda, candy and jellies. Eating these foods cause an increase in blood sugar levels. Your dietician can help you manage your diet to control your diabetes. One way to help may include keeping a food diary to track what you eat, when you eat and how it affects your glucose levels. Check your blood sugar 1 to 1 ½ hours after eating to see how your body reacts to various foods.

Follow the advice of your healthcare team, and see more ideas for a healthy lifestyle starting on page 13 of this book.

Avoid Smoking and Drug Use

Smoking is the most important preventable cause of death in the United States. Smoking and exposure to second hand smoke have many negative effects on your health. These effects include:



- Lowering HDL levels (good cholesterol)
- Temporarily raising blood pressure
- Increasing the likelihood of blood clotting
- Making exercise more difficult

Smoking doubles your risk of stroke. The day you stop smoking, your risk of stroke also drops. After 5-15 years of being smoke free, your risk is the same as a person who never smoked.

Getting ready to quit smoking

You are more likely to quit smoking for good if you prepare for two things: 1) your last cigarette and 2) cravings, urges and feelings that come after quitting. Look at quitting as a 5 step process:

1. Set a quit date and get support from your family and friends
2. Choose a method for quitting
 - a. “Cold turkey”: stop on your quit day.
 - b. Reduce the number of cigarettes you smoke each day until you reach 0.
 - c. Smoke only part of each cigarette and decrease the amount every 2-3 days.
3. Decide if you need medicine to help you quit.
 - a. If you smoke more than 25 cigarettes a day and smoke within 30 minutes of waking, you may be addicted to nicotine.
 - b. Medication may help you quit smoking for good.
4. Plan for your quit day
 - a. Have low-fat foods available to eat (ie: fruits, veggies, chewing gum)
 - b. Remove every cigarette, match, lighter, and ashtray from your house, office and car.
5. Stop smoking on your quit day. Celebrate each successful day with something you enjoy.

Healthy Lifestyle Changes

Eat a better diet

Try to eat a diet rich in:

- fruits and vegetables, at least five servings a day
- whole-grain, high-fiber foods
- fat free and low fat (1%) dairy products
- beans
- skinless poultry and lean meats
- fish

And low in:

- Saturated and trans fats
- Sodium (salt)
- Added sugars



Enjoy regular physical activity

Physical activity helps control your blood pressure and strengthen your heart. It also helps control your weight and manage your stress levels. Make physical activity a regular part of your day. Everyone should be active to improve their health and fitness. People who do not get regular activity are more likely to develop health problems. If you are just starting an exercise program, please talk to your doctor before beginning. The American Heart Association recommends the following:

- Get at least 2 ½ hours of aerobic physical activity per week.
- You can get your activity with 30 minutes a day on at least five days a week.
- Activity should last at least ten minutes, and it should be spread out throughout the week.
- Include stretching exercises.
- Include muscle strengthening at least two days per week.

A key to getting your daily activity in is to make it something you enjoy doing. If you love the outdoors, enjoy a walk or hike. If you prefer to be inside and love music, enjoy some tunes while you walk the treadmill. The important thing is to get moving with something you enjoy. Remember to mix up your activity routine to keep you motivated. Have a work-out buddy to help keep you on track and reward yourself for doing the work to achieve your goals. For information on activity please go to: www.heart.org

Maintain a healthy weight

Maintaining a healthy weight provides many health benefits. If you are overweight, losing as little as 5 – 10 pounds may help with the following:

- Fewer joint and muscle pains
- Greater ability to join in desired activities
- Better control of your blood pressure
- Reduce burden on your heart and circulatory system
- Better sleep
- Reduce your risk for Diabetes
- Reduce risk for heart disease and certain cancers

Ideally, you should strive to maintain a healthy weight. Most people should have a BMI between 18.5 - 25. People who want to lose weight can either gradually increase the level of physical activity (toward 300 minutes a week of moderate intensity activity), or reduce caloric intake, or both, until their weight goals are achieved. For more information, visit www.heart.org.

Manage stress

How much stress do you live with and what is the cost to your health?

Stress has an impact on your body. Your body reacts to stress by releasing stress hormones in the blood. These stress hormones increase your heart rate and constrict your blood vessels, which increases your blood pressure. The increased blood pressure is only temporary and returns to pre-stress levels when the stress is removed.

What can I do to reduce my stress?

You can reduce your stress by:

- enjoying regular physical activity
- giving yourself enough time to get things done
- managing your task list so that it is reasonable
- not sweating the small stuff



Uncontrollable Risk Factors

These include things that we cannot control or manage. Although we cannot change these things about ourselves, it is important to know what they are so we can better understand our stroke risk.

- **Age:** A stroke can happen to anyone, but risk increases with age.
- **Gender:**
 - Women suffer more strokes per year than men. This is mainly because women live longer and stroke occurs more frequently in the elderly.
 - Men are more likely to have a stroke at a younger age than women.
- **Race:** African Americans have a higher stroke risk than other racial groups.
- **Family history:** Stroke or Transient Ischemic Attack (TIA) can be an inherited risk.
- **Personal history of stroke or TIA:** About 5 -14% of people of who have a stroke will have another one within a year. Up to 40% of people who have a TIA will suffer a stroke.

How Does the Brain Control my Body?

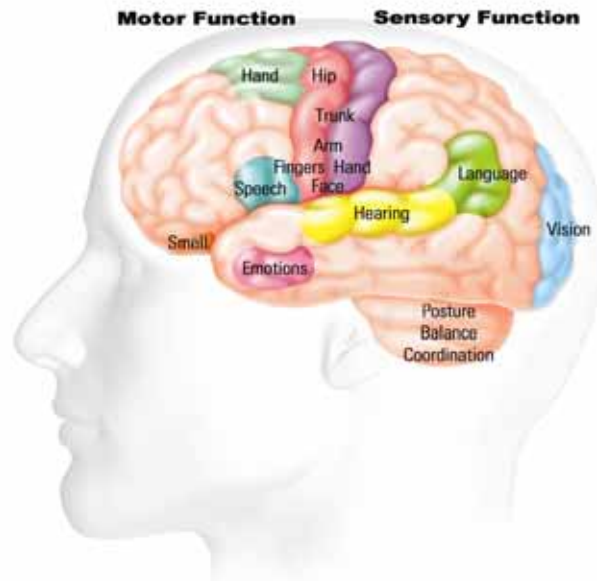
Your brain controls many of the functions of your body. The brain is divided into different areas that control how the body moves and feels. The picture shows the left side of the brain and the areas that may be affected by a stroke.

The left side of the brain

controls the movement and feeling of the right side of your body. Survivors of left-sided strokes may have weakness or paralysis of the right side of the body. They may have trouble with talking and/or understanding written or spoken words.

This is called aphasia.

Survivors may also have a hard time remembering new information.



The **right side of the brain** is responsible for movement and sensation on the left side of the body. A right-sided stroke might cause weakness or paralysis on the left side of the body. Survivors of right-sided strokes may have problems judging distances and space, making them more likely to fall or bump into objects.

There are many **general** symptoms that a stroke survivor may experience. Sometimes survivors will have problems with judgment and impulsiveness. They may not realize that they can no longer safely complete tasks as they did before the stroke. For example, a stroke survivor with paralysis on one side of the body may believe he or she can get up and walk. This could lead to a fall. Survivors may neglect or forget about the affected side of their body due to inattention or loss of feeling.

Common Stroke Medicines

Knowing what stroke is and what your risk factors are is the first step in controlling your risk for stroke. Sometimes medicines are needed to help control your risk factors. Work with your doctor to see what medicines are best for you.

Antihypertensive “blood pressure” medicines are used to lower your blood pressure when diet and exercise are not enough. There are over 50 types of these medicines. Each medicine works differently to lower blood pressure. Talk with your doctor about which medicine is best for you. Some things to consider in choosing the right medicine for you are cost, convenience, side effects, and how they work with your other medicines. **It’s important that you take your blood pressure medicine, even if you feel fine.** Otherwise, the medicine will not work properly.

My blood pressure medicine is: _____

Cholesterol-reducing medicines help to lower the amount of cholesterol in your blood stream. This will help to prevent a stroke.

My cholesterol medicine is: _____

Blood clot prevention medicines help to prevent a stroke by stopping blood clots from forming in the blood stream. There are two types of this medicine. They are called anticoagulants and antiplatelets.

My blood clot prevention medicine is: _____

Recovery and Rehabilitation Team

Rehabilitation starts in the hospital as soon as possible after the stroke. Depending on the seriousness of the stroke, rehabilitation may continue after you leave the hospital. Your rehabilitation team may include:

- **Nurses** coordinate day-to-day care and help to make rehabilitation a part of the stroke survivor's routine.
- **Physical Therapy (PT)** helps restore physical functioning and skills like getting in and out of bed, moving from a bed to a chair, balance, and walking. Physical Therapists will also help to restore movement wherever it has been lost.
- **Occupational Therapy (OT)** helps you relearn the skills you need for everyday living. This can include eating, toileting, bathing, and dressing. Occupational Therapists may also help you work on ways to improve your safety, memory and information processing. They may also work on any vision problems you have related to your stroke. OT's will also help to restore movement wherever it has been lost.
- **Speech -Language Pathology (SLP)** helps restore communication, thinking, and swallowing skills.
- **Social Workers and Case Managers** provide counseling and support services for stroke survivors and their families. They help caregivers find the best possible solutions to rehabilitation and recovery needs. They can provide support to help address barriers to lifestyle changes.
- **Neurologists** are doctors skilled in the diagnosis and treatment of diseases of the nervous system, which includes the brain.
- **Neurosurgeons** are doctors with specialized training in surgical treatments of the nervous system.
- **Neurointerventional surgeons** are doctors with special training that diagnose and treat certain conditions.

The entire team is committed to your success both in the hospital and at home. The following pages will help to address the common concerns stroke survivors and their families face when leaving the hospital.

Life at Home for Stroke Survivors and their Caregivers

You may be nervous about being on your own at home after a stroke. Common concerns are:

- A stroke may happen again.
- Adjusting to new challenges.
- Ability to go home.
- The caregiver may not be prepared to care for you.
- That friends and family will abandon you.

Many communities provide stroke support groups, education, and services that may help with these concerns. Talking about your concerns may be helpful. You can find a list of support groups on page 30 of this book.

Here are some steps to help make returning home easier and safer.

- Ask your doctor about having physical and occupational therapy at home.
- Make your home friendly to a wheelchair or walker by moving furniture and adjusting doors.
- Change lighting in your home to decrease glare and help you see better
- Keep phones within easy reach.

Staying safe and connected:

- Write down emergency numbers in large print on index cards and keep them handy.
- Arrange for people to check in with you regularly.
- **Accept help** with household chores.
- Allow family members and friends to drive you places for at least 6 months after your stroke.
- Keep active with your family and friends.
- Participate in your local support group.
- Consider purchasing a personal emergency alert device.

How to stop a fall:

- Move furniture out of your path. Place extra furniture next to a wall or in a less used room.
- Clear paths to the bathroom, kitchen, exits, and bedroom.
- Move electrical cords out of the way.
- Wear non-skid shoes.
- Remove loose carpets or throw rugs in hallways and on stairs.
- Install handrails in stairways.
- Use assistive devices (cane, walker, etc.) as directed by your care provider.

In the bathroom:

- Install handrails.
- Use grab bars in the tub and shower.
- Put non-slip flooring strips inside and outside the tub.
- Use bathtub benches and toilet chairs.
- Use easy-to-use water faucets.
- Use adjustable or handheld showerhead.
- Use bath supplies that are easy to reach and use.
- Consider lowering the temperature on your hot water heater to less than 120 degrees.

Bedroom safety:

- Keep a phone close.
- Have a light switch near your bed.
- Use a nightlight and have a clear path to the toilet.

Getting dressed:

- Wear loose fitting clothes.
- Wear clothes that fasten in the front.
- Replace buttons, zippers, and laces with Velcro fasteners.
- Talk with other stroke survivors for ideas and resources.
- Check websites for adaptable clothing.

Staying safe in the kitchen:

- Use caution if you need to reach across the burners on your stove to adjust temperature control buttons.
- Put a mirror over the stove to help you see the stovetop if you are seated while cooking.
- Keep a fire extinguisher handy.
- Keep a clear space near the stove where you can place a hot pot.
- Keep oven mitts handy.
- Move your most often used items where you can easily reach them.

Returning to work and driving is something that is specific to each stroke survivor.

- Talk with your doctor about when it will be safe for you to resume these activities.

Coping with Emotions

Many stroke survivors are affected by emotions and mood changes. You may experience sudden laughing or crying spells that may or may not have an explanation.

Some things that may help you cope with emotional changes:

- Be open about it. Let people know that you cannot always control your emotions. Explain that the emotions you show on the outside may not reflect how you feel on the inside.
- Distract yourself. If you feel an outburst coming on think of something else. Count backwards or count objects in the room.
- Relaxation techniques may be helpful. Some ideas include: deep breathing, changing your posture, or relaxing your muscles.

Depression

Many people go through depression after a stroke. This can be overwhelming and affect everyone involved. You may not want to take medicines or perform exercises. You may become irritable with others. These can be signs of depression. This may improve over time. Anti-depressant medicine may be helpful.

Some things you can do to help cope with depression:

- Stay in contact with other people.
- Continue to enjoy some of your past leisure activities.
- Stay active in spiritual activities.
- Attend your local stroke group.
- Take medicines as directed by your doctor.

Have you experienced changes in emotions or mood? yes no

Has family noticed changes in my mood? yes no

If you answered “yes” to either question, please consider discussing these symptoms with your doctor.

Difficulty with Thinking

Some changes, such as memory loss, can be so subtle that you may not notice them at first. There are several different types of memory loss after a stroke. The most common type is vascular dementia. This is a decline in intellectual abilities because of a stroke. Brain tissue has been damaged because of reduced blood flow to the brain. The brain cells have difficulty working together to process information. Some symptoms may include:

- Forgetfulness.
- Confusion.
- Mood swings, personality changes, unexplained anxiety or feelings of sadness.
- Difficulty speaking or understanding what is written and spoken.
- Trouble paying attention or following a conversation.
- Struggle with coordination (example: difficulty buttoning a shirt).
- Difficulty planning and organizing tasks.
- Visual orientation problems.
- Difficulty with calculations, making decisions, solving problems.

Talk with your doctor if you are having any of the above symptoms.

Helpful ideas:

- Get a routine and stick with it as much as possible. Do your activities at the same time every day.
- Break down tasks into manageable steps.
- Focus on completing one task at a time.
- When something needs to be done, do it right away or make a note.
- Have a place to put important items so they are easily found.

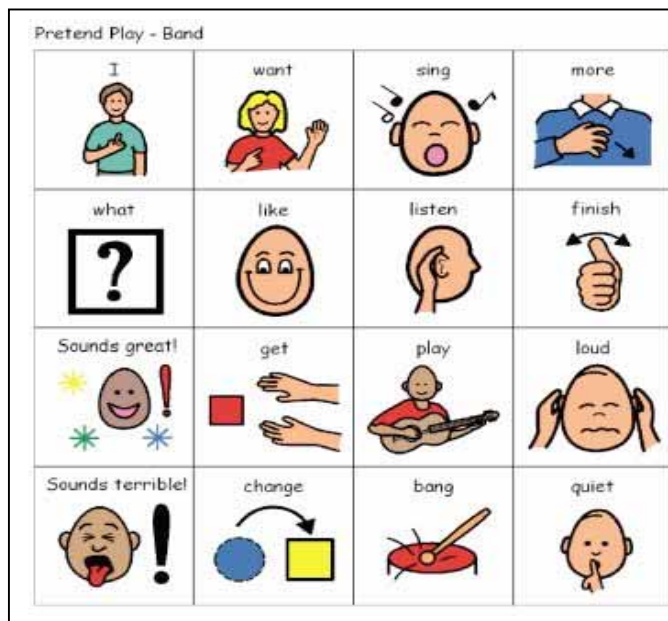
Communication Problems

A stroke may cause damage to the language center of the brain. Language problems can include both understanding and speaking difficulties. Your speech-language pathologist will help you with ideas on how to cope with these challenges. Some coping strategies include:

- Write, draw, or use gestures for what you need.
- Speak in short sentences, and ask simple yes/no questions.

The use of a word or picture board may be helpful.

Example of a picture board



Skin

Bedsore can be a serious problem for stroke survivors who spend a lot of time in bed or in a wheelchair. Sores may be found on the buttocks, heel, back of the head, or side of the ankle. It is important to change your position often. You should change your position at least every 2 hours. Use pillows to support the affected arm or leg. Special mattresses or cushions can reduce pressure and help prevent bedsore.

Sexuality

A stroke can change your body and how you feel. Those changes can affect sexuality. Part of getting back into a normal routine involves resuming a healthy sex life. The physical and mental release sex provides is important. Concern of having another stroke during sex is common. It is unlikely that a stroke will happen during sexual activity. Talk with your doctor before resuming sexual activity to be sure you are healthy enough.

Stroke survivors report a decrease in sexual desire and how often they have sexual relations. Women report a strong decrease in vaginal lubrication and the ability to have an orgasm. Men often have weak or failed erections and ejaculations. Talk with your doctor before using medicines that help or correct this problem.

Communication is key. Talking about sex is hard for many people. It is important to talk openly and honestly with your partner about your sexual needs, desires and concerns.



Sleep and Tiredness

Sleep may become a problem after one has had a stroke. This can get better with time. Having trouble sleeping can be frustrating and make you feel tired and irritable. A common cause of difficulty sleeping is sleep-disordered breathing. This is caused by abnormal breathing patterns. Some symptoms include loud snoring, shortness of breath, excessive tiredness during the day, memory troubles, headaches and irritability. Other people you live with may notice these changes. Talk with your doctor if your trouble sleeping does not improve.

Treatments for sleep problems may include:

- Avoiding caffeine.
- Going to bed at the same time every night.
- Only nap early in the day.
- Losing weight.
- Staying away from alcohol and sleep medicines.
- Wearing dental appliances at night to help open your airway.
- Sleeping on your side, not on your back.
- Using an assistive breathing machine at night.



Pain

You may have pain for many reasons. Under normal conditions pain is a way for your brain to tell you that your body is being hurt. This is not always the case after a stroke. Sometimes a normal touch may feel painful. Pain may be felt in your joints or muscles due to tightness or weakness in your affected limb.

Pain after a stroke can be:

- Mild, moderate or severe.
- Constant or on-and-off.
- On part or all of the side of your body affected by the stroke.
- Felt in your face, arm, leg or body.
- Aching, burning, sharp, stabbing or itching.

Treating your pain

To find relief, you must first find the cause of your pain. Pay attention to when it happens and in what part of your body. Does it seem to be caused by something or someone touching you? Tell your doctor about your symptoms. Together you can find the best treatment. Here are some solutions you can try at home.

- Avoid things that can cause pain. This could be hot baths, tight or easily bunched clothing, pressure on the side of your body affected by stroke.
- Only use heat packs or exercises IF prescribed by your physical or occupational therapist. NEVER place a heat pack on an area of your body if your ability to feel hot or cold has been affected by your stroke.
- Support your paralyzed arm on an armrest or pillow to relieve shoulder pain while sitting or lying down.
- Stay as active as possible. Not using your muscles may lead to muscle spasm.
- Support your weakened or paralyzed arm with a sling while walking to reduce shoulder pain. A special sling may be prescribed by your physical or occupational therapist.
- Check the skin under braces often to be sure that sores are not developing.
- Depression is common if you have chronic pain. See your doctor if you are depressed. Counseling and medicine may help.

Spasticity after Stroke

Spasticity is tightness in the muscles of your arms or legs. This is common after a stroke. It may get better over time or stay the same. Some symptoms are:

- Stiffness in the arms, fingers or legs
- Painful muscle spasms
- Uncontrolled movements or jerking
- Abnormal posture

What treatments are available?

Physical and Occupational Therapists can help you manage spasticity. Some examples may be:

- Regular stretching
- Exercises
- Splinting or casting
- Cooling techniques
- Medicines



Stroke-Related Websites

American Occupational Therapy Association (AOTA):

www.aota.org

American Physical Therapy Association (APTA):

www.apta.org

American Speech-Language-Hearing Association (ASHA):

www.asha.org

American Stroke Association (ASA) - A Division of the American Heart Association:

www.strokeassociation.org

National Aphasia Association:

www.aphasia.org

National Institutes of Health stroke webpage:

<http://stroke.nih.gov/>

National Stroke Association:

www.stroke.org

Senior Services of Kalamazoo:

<http://seniorservices1.org/index.htm>

Stroke Smart:

www.strokesmart.org

The Internet Stroke Center at Washington University:

www.strokecenter.org

Other Helpful Information

Specialized Driving Program
Disability Network
517 East Crosstown Parkway
Kalamazoo, MI 49001
(269) 345-1516
(800) 349-7450

Stroke Support Groups

Bronson Methodist Hospital

Third Thursday of the month

11 a.m. to Noon

Bronson Gilmore Center for Health Education

601 John Street, Kalamazoo

Parking available in the Jasper Street Parking Ramp

(269) 341-7500

Brain Injury Support Group

Disability Network of S.W. Michigan

Meetings on Thursdays 1:30-3:30 pm

517 E. Crosstown Parkway

Kalamazoo, MI 49001

(269) 345-1516 ext. 120

Mary Free Bed Rehabilitation Hospital Stroke Support Group & Mentor Program

2nd Floor Conference Room

235 Wealthy Avenue SE

Grand Rapids, MI 49503

(616) 242-0443 or (800) 528-8989

The Stroke Support Group Meeting is held the first Wednesday of every month

6:15 pm - 7:30 pm

Southwest Regional Rehabilitation Center Stroke Support Group

2nd Tuesday of every month.

11:30 am – 1:00 pm, lunch provided

393 E. Roosevelt

Battle Creek, MI 49017

Contact the Medical Social Work Department at (269) 965-3206

Three Rivers Health Stroke Support Group

1st Tuesday 10:00-11:00 am

Wellness Pavilion Community Room

701 S. Health Parkway

Three Rivers, MI 49093

(269) 273-9795 or (269) 273-9681

Stroke or TIA Education Plan

Getting Ready to Learn about Stroke or TIA (mini stroke)

Learning something new can be hard when you are not feeling well. Here are some good things to tell the staff:

- Who do you want to learn with you? We would like to have someone who will be helping you at home learn with you.
- What is the best way for you to learn? Do you learn best by reading a book or pamphlet? Or do you learn best by doing things yourself?
- If you are not feeling well, if you are in pain or you cannot focus on learning right now.

Because this teaching is about your health, the staff may explain something more than once and give you information in “small” pieces over several days.

By the time, I leave the hospital I will be able to tell the staff:

- How my life has changed because of a stroke or TIA (mini stroke)
- The symptoms of stroke.
- What to do if I have the symptoms of stroke.
- What I need to do to get well.
- What I need to do to lower my risk of having another stroke or TIA.
- What barriers I have to making the changes to lower my risk for stroke.
- What medicines I may take to help lower my risk of stroke.

The staff will use three questions and answers to teach me about Stroke or TIA:

1. What is my main problem?
2. What do I need to do?
3. Why is this important to me?

The staff will ask me to repeat back important points in my own words, or ask me to show them what I have learned. They want to make sure that I know about my disease and how to take care of myself.

What is my main problem?

My life has changed because I have had a stroke or TIA (mini-stroke). I may experience some of the following:

- Difficulty moving my arms or legs the way I used to due to weakness or balance.
- Numbness.
- Problems talking or understanding what others are saying.
- Problems thinking clearly or remembering things.
- Problems with vision.

My brain does not know how to do some things after a stroke. This is because the blood flow to part of my brain has changed. When the brain does not get blood, the cells begin to die. This could result in problems with speech, movement and memory. Some people recover completely after a stroke. Most people have some disability after a stroke.

What do I need to do?

Know the signs and symptoms of stroke and what to do if they occur again.

Signs and symptoms of stroke

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

Call 911 if I am having any symptoms of stroke! I will not drive myself or have a loved one drive me.

- Having emergency medical personnel help in getting me to the hospital makes the trip safer for me and others.
- They can also help with any problems I may have on my way to the hospital, such as problems breathing and chest pain.
- They will also tell the hospital my symptoms before I get there and the hospital can be ready faster.
- Every minute that passes puts my brain at risk for further injury. This is why it is very important to call 911 right away.

Know what I need to do to get better from a stroke.

- Understand that everybody heals differently.
- Understand that recovery takes time.
- I will need support from my family and friends.
- I may need therapy to help me get back some of my lost function.
 - Physical therapy can help me get back the use of my arms and legs.
 - Occupational therapy can help me learn how to live on my own.
 - Speech therapy can help me communicate with others or help with swallowing problems. If I have trouble swallowing, I may need to change the texture of my foods.

Know the risk factors & how I can lower my risk of having another stroke or TIA.

Understand My Risk for Stroke

Each person is different and has different risks for having a stroke.

The National Stroke Association developed a tool to help my family and I know about our risk for stroke. I can find the stroke risk assessment on page 4 of the Stroke Patient Education Guide.

I should take time to fill this out and share the tool with my family.

I can read about changes I can make to lower my risk on page 5 and 6.

The most important ones I can change are:

High blood pressure

- The foods I eat can help keep my blood pressure low.
 - Limit the amount of sodium and salt in my diet.
 - Read food labels for sodium content. Avoid or limit foods with more than 300 mg of sodium per serving.
 - Do not add salt to foods when I cook or at the table.
 - Be careful when eating at a restaurant. Choose foods that are naturally low in sodium. Many restaurants have special menu items that are prepared with little or no salt.
 - Include that are rich in potassium in my diet
 - Include at least 5 servings of fruits and vegetables in my diet every day.

Diabetes

Work to control your blood sugar levels through diet, exercise, and medicine if given by your physician.

Overweight

- Exercise regularly.
- Stay at a healthy weight. Eat a diet that is high in fruits and vegetables. Avoid high-fat foods.
- I can ask my doctor or dietician what is a healthy weight for me.

Irregular heartbeats (atrial fibrillation)

Atrial fibrillation is an irregular heartbeat that can lead to blood clots forming in your heart and traveling to your brain. If you have atrial fibrillation, follow your doctor's plan.

Drinking

Limit the amount of alcohol you drink.

- 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.

Smoking

Stop smoking. There are many ways to help you quit.

High cholesterol

The foods I eat can help keep my blood cholesterol at healthy levels.

Limit the amount of fat in my diet to less than 25-35% of my total calorie intake.

Limit saturated fats such as fats in meat, poultry, and high-fat dairy foods. Use low-fat or fat-free dairy products. Use lean cuts of meat and trim visible fat.

Limit hydrogenated fats or trans-fats. These are fats found in fried foods, crackers, cookies and chips.

Include foods in my diet that are high in omega-3 fatty acids. These foods include walnuts and other tree nuts, and flaxseed oil. These also include cold-water, fatty fish such as salmon and tuna.

My cholesterol intake should be 200 mg or less.

Include foods that are high in fiber in my diet. These foods include fresh fruits and vegetables, foods made from whole grains, dried beans and peas. Aim for 20 grams of fiber each day.

Some things I cannot change:

- Gender (males are at a higher risk)
- Race (African Americans are at higher risk)
- Family history of stroke
- Personal history of stroke

If I have questions about what to eat, I can ask my doctor to refer me to an outpatient dietitian. I can make an appointment with an outpatient dietitian by calling 269-341-6860.

Address barriers to lifestyle changes

Barriers

- Barriers to lifestyle changes may make it hard for me to reach my goals.
- I need to know what the barriers are for me.
- I need a plan to get rid of the barriers.
- I need to talk about these barriers my healthcare team.
- These are the barriers I see in making the lifestyle changes my healthcare team has discussed with me?

Know what medicines are used to help prevent stroke. Not everyone needs every medication listed below.

Blood pressure medicines help keep my blood pressure low. This helps my heart and my blood vessels work better.

Cholesterol-reducing medicines help lower the amount of cholesterol in my blood. This helps prevent a stroke.

“Blood thinners” help prevent a stroke by stopping clots from forming in my blood.

I know that I must take my pills every day, the way the doctor told me to, so they will work.

Identify ways to control my pain. Pain can happen for many reasons and be mild or severe. There are many different ways to treat your pain from medicines to relaxation techniques. Everyone experiences pain differently and what works for someone else may not work for you.

Why is this important to me?

I have had a stroke or a TIA. That means I am more likely to have a stroke in the future. I can help prevent a stroke by doing what I have learned here. I know that getting help immediately if I have stroke symptoms may lower the changes to my body from the stroke.

As part of my care I have received this education plan. I may also receive:

- Stroke Patient Education Guide
- Stroke or TIA Discharge Orders and Instructions
- Information about diet
- Smoker's quit kit

Bronson has a stroke support group available for you and your family if you would like to join in some of the meetings.

Bronson Methodist Hospital Stroke Survivor Support Group

Bronson Gilmore Center for Health Education

601 John St., Kalamazoo

(269) 341 7500

Parking is available in the Jasper Street Parking Ramp.

The Stroke Support Group meeting is held the third Thursday of the month from 11:00 a.m. to noon (except in July and August).

Definitions of Medical Terms

Ambulate: to walk

Aneurysm: a weak spot on the wall of the artery that balloons out

Angiography: an X-ray of blood vessels

Anticoagulants: medicines used to keep blood clots from forming.

Antihypertensives: medicines used to lower blood pressure.

Antiplatelets: medicines used to keep blood clots from forming.

Aphasia: trouble speaking and/or understanding spoken or written words.

Arrhythmia: an irregular or unpredictable heart beat.

Arteriovenous malformation (AVM): blood vessels that are not correctly connected.

Atherosclerosis: plaque buildup that causes “hardening” of arteries

Aspiration: when food or liquid enters into the lungs or wind pipe.

Ataxia: uncoordinated movement

Atrial fibrillation: an irregular heartbeat.

Barthel index: how well a stroke survivor can do daily activities.

Brain stem: part of the brain that controls activities like breathing, blood pressure and eye movement.

Broca’s aphasia: when stroke survivors can understand what is said and written, but have problems talking or writing.

Carotid arteries: arteries in the neck that carry blood from the heart to the brain.

Carotid endarterectomy: a surgical procedure to remove plaque from the carotid artery to let blood flow more freely to the brain.

Carotid stenosis: narrowing of the carotid arteries caused by a build-up of plaque.

Cerebellum: part of the brain that controls coordination of movement

Cerebrospinal fluid: fluid in the brain and spinal cord.

Cholesterol: soft, waxy fat in the bloodstream and cells.

Cognition: process of knowing, including awareness, perception, reasoning, remembering and problem solving.

Continence: ability to control body functions, especially bowel and bladder use.

Contracture: condition where a muscle becomes tight and resistant to stretching.

CT or “CAT” scan: X-ray that shows the structures of the brain in detail.

Doppler ultrasound: test that looks at blood flow through arteries and veins.

Dysarthria: difficulty speaking due to problems with muscles in the face.

Dysphagia: difficulty swallowing

Edema: swelling due to fluid retention

Embolic Stroke: stroke caused by a blood clot

Emotional lability: sudden changes in emotions.

Gait: style of walking

Global aphasia: severe difficulty understanding others and communicating.

Hematoma: bruise in an organ or tissue.

Hemianopia: partial vision loss in one or both eyes.

Hemiplegia: inability to move one side of the body

Hemorrhage: excessive bleeding

Hypertension: high blood pressure

Hypotonia: decrease in muscle tone or strength

Hypoxia: low level of oxygen in the body.

Infarct: area of dead tissue

Intracerebral hemorrhage: stroke caused by bleeding in the brain

Ischemia: blockage of blood flow to the brain

Left Hemisphere: left half of the brain that controls the right side of the body.

Magnetic Resonance Imaging (MRI): test that looks at internal structures with magnetic and radio waves.

Neglect: lack of attention to objects or actions on one side of the body.

Occlusion: blocked blood vessel.

Penumbra: area of the brain around the stroke that is in danger of dying, but is not permanently damaged.

Plaque: deposits in the inner lining of the artery.

Platelets: blood cells that stick together to form clots

Right hemisphere: right half of the brain that controls the left side of the body

Secondary injury: injury to cells that can continue to occur after the first injury.

Spasticity: Unusually increased tone in a muscle.

Stenosis: reduction in the size of a blood vessel

Stroke: The sudden interruption of blood flow to a part of the brain.

Subarachnoid hemorrhage: A stroke caused by bleeding under the membrane surrounding the brain.

Thrombolytic Agents: A medicine that works to dissolve stroke-causing clots.

Thromboembolism: A clot that travels through the bloodstream and blocks another vessel.

Thrombosis: Blood clot in a blood vessel.

Thrombotic Stroke: A stroke caused by a blood clot stopping the blood flow through an artery.

Transient ischemic attack (TIA): A brief interruption of blood flow to the brain. This causes temporary stroke symptoms lasting less than 24 hours.

Vertebrobasilar Arteries: The arteries in the back of the neck that supply blood to the brain stem and cerebellum.

Blood Pressure Tracking

Knowing your blood pressure is important to your over all health and stroke management.

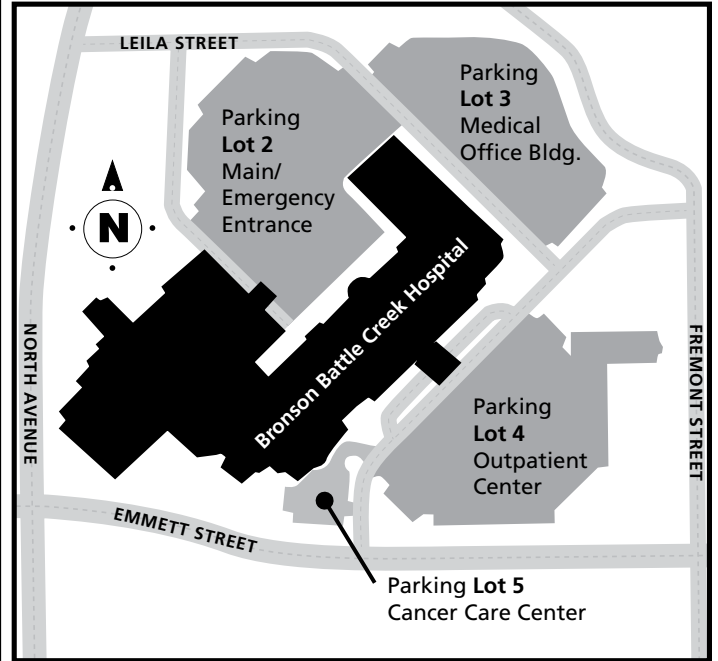
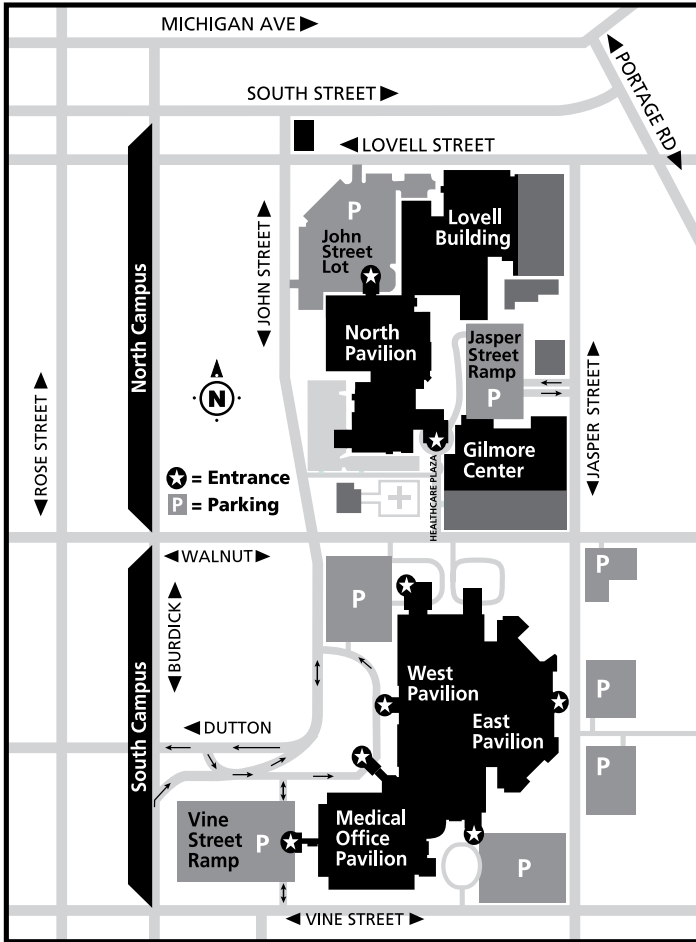
**If your blood pressure is above 180 or _____ on two separate readings please call your doctor's office. If your high blood pressure is associated with other symptoms such as chest pain or stroke symptoms call 911.

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Bronson Methodist Hospital
 601 John St.
 Kalamazoo, MI 49007
 (269) 341-7654
 bronsonhealth.com

Bronson Battle Creek Hospital
 300 North Ave
 Battle Creek, MI 49017
 (269) 245-8000
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