



RWJBarnabas Health Stroke Education

RWJBarnabas
HEALTH

Signs & Symptoms Of Stroke

Stroke survivors are at an increased risk for another stroke. Knowing the warning signs for stroke may help save your life or the life of someone you love. And, getting quick treatment may improve the chances of survival and getting better faster.

The signs or symptoms of a stroke can appear suddenly. Not every person has all of them. When you see ANY of them, act quickly.

The signs or symptoms of a stroke are:

- Sudden numbness or weakness 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

If stroke warning signs occur:

- Do not ignore them, even if they go away! Some people may have only one or two signs. Other people may have more.
- Check the time when the symptoms first started. You will be asked this important question later.
- Act fast. **Call 911** or your emergency response number right away.

Stroke is a medical emergency. Every second counts!

Recognize the symptoms of stroke

While each individual may experience different stroke symptoms, the ones below are most common. Time is crucial when treating and recovering from a stroke. Act quickly. Don't wait. Stroke is a medical emergency and every second counts

B E F A S T

BALANCE
Sudden
loss of balance,
or sudden
onset dizziness

EYES
Sudden
change in
vision in one
or both eyes

FACE
Sudden
numbness or
drooping on one
side of the face

ARMS
Sudden
numbness or
weakness in
the arms

SPEECH
Sudden
difficulty or
slurring of
speech

TERRIBLE HEADACHE
Sudden terrible
or "thunderclap"
headache with
no known cause

TIME is BRAIN!
Every second counts during a stroke.
Call 911 immediately if any of the above symptoms occur!

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Introduction

There is life – and hope – after stroke. With time, new routines will become second nature. Rehabilitation can build your strength, capability and confidence. It can help you continue your daily activities despite the effects of your stroke.

If you are the caregiver, family member or friend of a stroke survivor, your role is vital. You should know the prevention plan and help your loved one to comply with the plan. With a committed health care team and a rehabilitation plan specific to their needs, most stroke survivors can prevent another stroke and thrive.

We hope this guide will help you and your loved ones understand the effects of stroke and how to maximize your rehabilitation and recovery.



Preventing Another Stroke

Each stroke survivor has their own unique set of risk factors that contributed to their stroke. Knowing the underlying cause of your stroke is important to preventing another one.

Certain traits and lifestyle choices increase the chance of having a stroke. Although some risk factors can't be controlled, most can be managed.

Risk factors you can't control:

- ❑ Increasing age
- ❑ Gender
- ❑ Race
- ❑ Family and personal medical history
- ❑ Prior stroke, TIA or heart attack

Risk factors you can manage or control:

- ❑ High blood pressure
- ❑ Smoking
- ❑ Diabetes
- ❑ High cholesterol
- ❑ Physical inactivity
- ❑ Obesity and being overweight
- ❑ Carotid or other artery disease
- ❑ Atrial fibrillation (AFib) or other heart disease
- ❑ Excessive alcohol intake
- ❑ Illegal drug use
- ❑ Sleep apnea

Lifestyle choices:

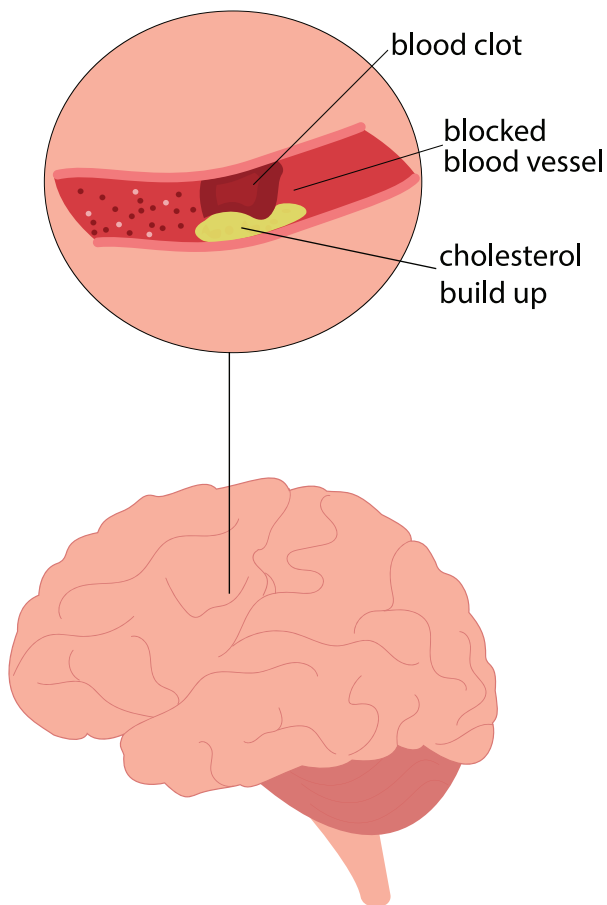
You can modify many of the risk factors you may have by the personal choices you make each day.

- ❑ Don't smoke or use other forms of tobacco and avoid second-hand smoke.
- ❑ Adults with chronic conditions or disabilities, who are able, should do at least 150 minutes a week of moderate- intensity aerobic activity, preferably spread throughout the week. Regular physical activity can help control cholesterol, diabetes and weight. It can also help lower blood pressure and reduce your stroke risk.
- ❑ Try to reach and maintain a healthy weight. To lose weight, you need to take in less calories than you burn.
- ❑ Follow a heart-healthy diet that includes fruits and vegetables, whole-grains, fat- free or low-fat dairy products, skinless poultry, fish, nontropical vegetable oils, legumes (dried beans and peas), and unsalted nuts and seeds. And limit your intake of saturated and trans fats, red meat, sodium and added sugars.
- ❑ If you drink alcohol, limit it to one drink a day for women or two drinks a day for men.

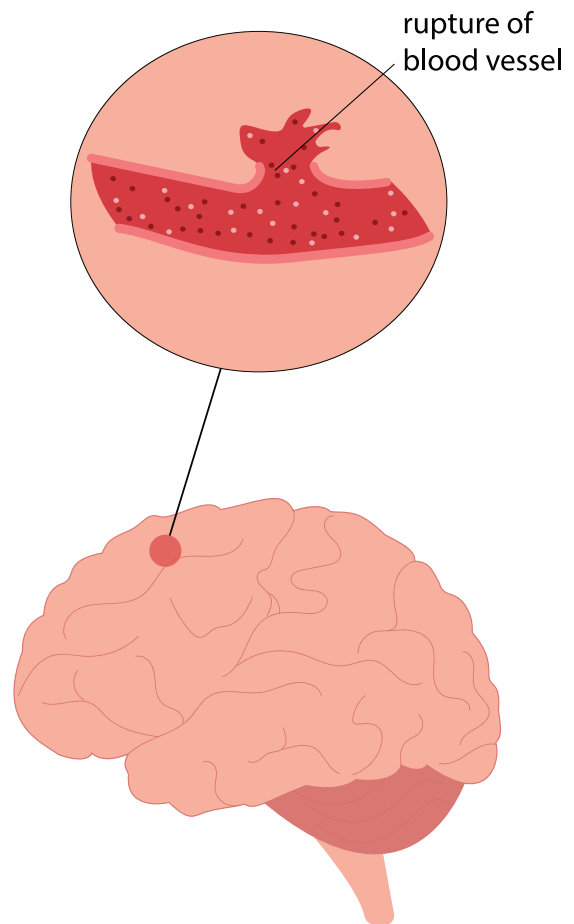
You can greatly reduce your risk of another stroke with the right lifestyle choices and a good medical management plan.

Types Of Stroke

Ischemic stroke occurs when a clot blocks a vessel supplying blood to the brain. The artery becomes narrowed or clogged, cutting off blood flow to brain cells. Ischemic strokes are the most common type of stroke.



Hemorrhagic stroke happens when a blood vessel bursts (ruptures) in the brain. This type of stroke may affect large arteries in the brain or the small blood vessels deep within the brain. The rupture keeps the surrounding areas of the brain from getting needed oxygen. Hemorrhagic strokes are less common than ischemic strokes.



Transient ischemic attacks (TIAs) are often called “warning strokes.” TIAs produce symptoms just like stroke, but typically last a shorter amount of time.

They don’t usually cause lasting damage. But they are major predictors of future stroke. If you suspect you’ve had or are having a TIA, don’t ignore it! **Call 9-1-1.**

Get immediate medical attention, even if the symptoms go away.

About My Stroke

Talk with your health care team to learn where in the brain your stroke happened and mark it on the image below.

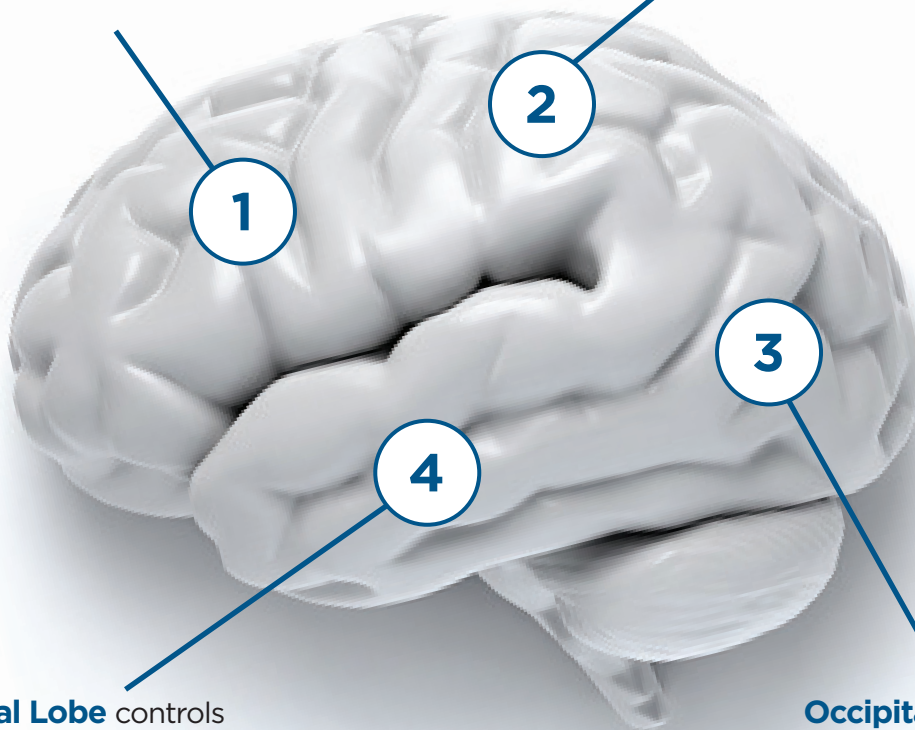
You can learn how stroke in different areas of the brain may affect the survivor at strokeconnection.org/about-our-brains.

Frontal Lobe controls personality, reasoning, parts of speech, and muscle movement

Parietal Lobe controls speech and sensation (touch and pressure)

Temporal Lobe controls hearing, speech and short-term memory

Occipital Lobe controls vision



How my stroke is affecting me physically:

Take time to talk with your health care team about the specific physical effects you're having now. Also watch for those that may come up later. Make notes of things the team tells you that you'll want to remember:

☐ Fatigue

☐ Swallowing difficulty (dysphagia)

☐ Incontinence

☐ Trouble with balance

☐ Seizure

☐ One-side neglect

☐ Foot drop

☐ Pain (might arise later)

☐ Spasticity (might arise later)

☐ Trouble with vision

Common Communication And Cognitive Changes After Stroke

The brain controls your ability to use language. Speaking, listening and understanding are complex processes. Each involves different parts of the brain. The location of the stroke injury controls the type of communication problem.

Aphasia

Aphasia is a common communication problem after a stroke. There are three types: expressive, receptive and global.

- People with **expressive (non-fluent) aphasia** know what they want to say but have trouble saying it.
- People with **receptive (fluent) aphasia** have trouble understanding words other people speak.
- People with **global aphasia** may be unable to speak, name objects, repeat phrases or follow commands.

Dysarthria

Dysarthria affects control of the muscles in the face, tongue and mouth. People with dysarthria may know exactly what they want to say. But they may speak slowly. Their speech may sound slurred, muffled, hoarse or nasal.

Apraxia

Apraxia of speech affects the ability to speak. People with apraxia have trouble connecting speech messages from their brain to their mouth. Apraxia of speech may affect more than the power to speak. It often affects reading and writing as well.

Aphasia, dysarthria and apraxia do not cause a loss of intellect. Even though it's difficult for a survivor to speak, it's not because of a lack of intelligence.

Memory And Cognitive Challenges

Different parts of the brain control specific types of thinking. Depending on where stroke happens in the brain, problems with certain types of thought may occur. Stroke survivors can have trouble with memory. Planning, organizing ideas or making decisions can also be hard after stroke.

How stroke affects memory

Many stroke survivors face memory challenges. But not all memory problems are the same. A stroke survivor may:

- Remember for only a short span of time
- Have trouble absorbing new information.
- Have problems transferring learning from one setting to another.
- Mix up the details of an event.



Common Emotional And Personality Changes After Stroke

After a stroke, people often experience emotional and behavioral changes. This is because the brain controls our behavior and emotions. A stroke may make a person forgetful, careless, annoyed or confused. Stroke survivors may also feel anxiety, anger or depression. Their behavior depends on which part of the brain is affected and how extensive the injury is.

Depression

Depression is common after stroke, affecting about one-third to two-thirds of all survivors. The symptoms can be mild or severe, often starting in the early stages of stroke recovery. Stroke survivors should be assessed for depression and treated when it occurs. It's important to identify and treat post-stroke depression (PSD) as soon as possible. Untreated, it can lead to being in the hospital longer and can limit a survivor's functional recovery.

The symptoms of PSD may vary and change over time, but patients and families should watch for:

- Persistent sad, anxious or “empty” mood
- Depressed mood; loss of interest/pleasure
- Sleeping problems
- Decreased motivation
- Responding with little or no emotion
- Feelings of hopelessness
- Feelings of guilt, worthlessness, helplessness (feeling like a burden)
- Decreased energy, fatigue, being “slowed down”
- Difficulty focusing, remembering, making decisions
- Appetite changes
- Thoughts of death or suicide

When five or more of the above symptoms last for two or more weeks, a survivor may be having PSD.

Anxiety

Changes related to stroke can lead to worry and anxiety. Getting around may be harder. There may be financial strains. Other sources of anxiety after stroke may be fear of falling because of balance problems or being anxious about speaking because of aphasia. Counseling can be helpful for anxiety. Sometimes anxiety and depression are both in play. If you're anxious, talk with your health care team about potential treatments.

Pseudobulbar affect (PBA)

When parts of the brain that control emotions are injured, PBA (also called emotional lability or reflex crying) occurs. Most often, people cry easily. Some may laugh uncontrollably or have sudden mood swings. These are physical effects of the stroke.



WHY REHABILITATION IS IMPORTANT

The rehabilitation and support a survivor receives can greatly influence health outcomes and recovery. Stroke affects so many different functions — paralysis and weakness; gross motor skills; fine motor skills; speech and language; cognition; vision; and emotions. Appropriate, quality rehabilitation with a strong team specially trained to meet your needs improves the chances for the best possible recovery.

For the first three months after a stroke, the brain is much like a new brain. It's ready to learn, ready to make new connections. This ability for our brains to adjust is known as neuroplasticity and it plays a vital role in recovery. It takes about three months after the stroke for neuroplasticity to return to a more normal state. After that, a survivor can still work on regaining function and practice for improvement, but those improvements may come at a slower pace.

A program may include:

- Rehabilitation Nursing
- Physical Therapy
- Occupational Therapy
- Speech-Language Therapy
- Hearing Therapy
- Recreational Therapy
- Nutritional Care
- Counseling
- Social Work
- Psychiatry/Psychology
- Spiritual Support
- Patient/Family Education
- Support Groups

My rehabilitation motivators

Stroke rehabilitation can be hard work. But survivors who've been there will tell you it's well worth it. Think about some things that will help keep you motivated and make the most of your rehabilitation time. Motivators are the reasons you push to achieve your goals. (Examples: I want to attend my daughter's wedding. I want to work in my garden.)



REHABILITATION SETTING OPTIONS

Stroke survivors who qualify should receive treatment in an Inpatient Rehabilitation Facility (IRF) in preference to a Skilled Nursing Facility (SNF). Patients may receive care in one or more settings during their recovery.

WHERE?	WHO IS IT FOR?	WHAT DO PATIENTS GET?
Inpatient rehabilitation facility (IRF)	Patients who are expected to benefit from intensive, 24 hour-a-day rehabilitation care under the direct supervision of a rehabilitation physician and will receive rehabilitation therapy (physical, occupational and speech therapies) at least three hours per day, five days a week	Hospital level of care that is physician directed with 24-hour specialized nursing care. A comprehensive team of specialty trained physicians, therapists, nurses and case managers who develop a personalized plan of care. Daily physician visits are typical.
Skilled nursing facility (SNF)	Patients who need daily skilled nursing or rehabilitative care and will not tolerate the intensity of an Inpatient Rehabilitation Facility.	Skilled nursing and/or therapy services with no minimum therapy requirement. Services are commonly performed by or under the supervision of a registered nurse. Periodic physician visits but no minimum number of physician visits is required.
Long-term acute care facility	Patients with multiple complex chronic medical conditions.	Hospital level of care with highly specialized medical care and rehabilitative services.
Nursing home	Patients who don't require skilled nursing.	Long-term care for patients who can't live independently.
Outpatient clinic	Patients who don't require inpatient care and are able to leave home for therapy.	Hospital-based or free-standing sites; care transitioned to primary care provider; occupational, speech and/or physical therapy, and possibly other services.
Home health agency	Patient must be homebound, except for medical appointments or occasional personal outings.	Care transitioned to primary care provider; skilled nursing; speech, physical and occupational therapy; health aide; and social services as needed.

Medications

Every stroke survivor is unique. In order to prevent another stroke, work with your health care provider and rehabilitation team. They'll tailor a medication program that's best for you.

Be sure to take your medications as directed. Never stop taking them without talking with your health care provider. And, don't be afraid to ask questions.

The following are some of the common reasons medications are prescribed after stroke.

Preventing blood clots

The two main types of stroke-prevention medicines are anti-platelets agents, such as aspirin, and anticoagulants. Both prevent blood clots from forming.

Reducing blood pressure and cholesterol

High blood pressure (HBP) damages arteries so they may burst (hemorrhagic stroke) or clog (ischemic stroke) more easily. High cholesterol can cause clogged arteries, which increases the potential for a blood clot to form. That's why your health care provider may prescribe medicines to help lower your blood pressure or cholesterol, in addition to lifestyle changes.



Managing diabetes

People with poorly controlled blood sugar are at increased risk of stroke. If you have diabetes and have been prescribed insulin or any other medications, follow your health care provider's advice closely. This will help lower your chances of having another stroke.

Managing atrial fibrillation (AFib)

People with AFib have a five times greater risk of stroke. Medications are often prescribed to prevent and treat blood clots which can lead to a stroke. Additional drugs may be prescribed to control heart rate and rhythm. These medications may also be used in conjunction with other treatments.

Preventing seizure

After having a stroke, some patients are at risk of having seizures. Your health care provider or rehabilitation team can tell you if anti-seizure medications are right for you.

Managing depression

Depression is common after a stroke. Left untreated, it can have long-term impact on your recovery and life. The good news is that there are very effective medications for depression. If you or a family member think you may be depressed, talk to your health care provider about how medications may help.



STROKE SUPPORT SERVICES



A stroke changes a survivor's life — and their loved ones' lives — in an instant. Whether it's in person, online or on the phone, the American Stroke Association is here to support your journey to recovery.

Stroke.org



WEBSITE

Get information to help prevent, treat and beat stroke.

stroke.org



SUPPORT GROUP

Connect with others with similar experiences, learn helpful information and help ease the depression and isolation that's common after stroke. Use our support group finder for a list of groups near you.

stroke.org/SupportGroup



SUPPORT NETWORK

Be a part of an online community of survivors and caregivers who know what you're going through and can help you find your footing on the path to better health.

stroke.org/SupportNetwork



STROKE FAMILY WARMLINE

Talk with our trained specialists who can provide helpful information, connect you to local services or just be a listening ear.

Call **1-888-4-STROKE (1-888-478-7653)** or visit stroke.org/SpeakWithUs.



STROKE CONNECTION E-NEWS

Your trusted monthly newsletter supporting stroke survivors, their families and caregivers.



Stroke Support Group - RWJBarnabas Health

A place for survivors and caregivers to build a community. Survivors and care partners at any stage of recovery are encouraged to attend.

For more information: Call **609-584-5900** or [scan the QR code!](#)

Local Resources

Notes

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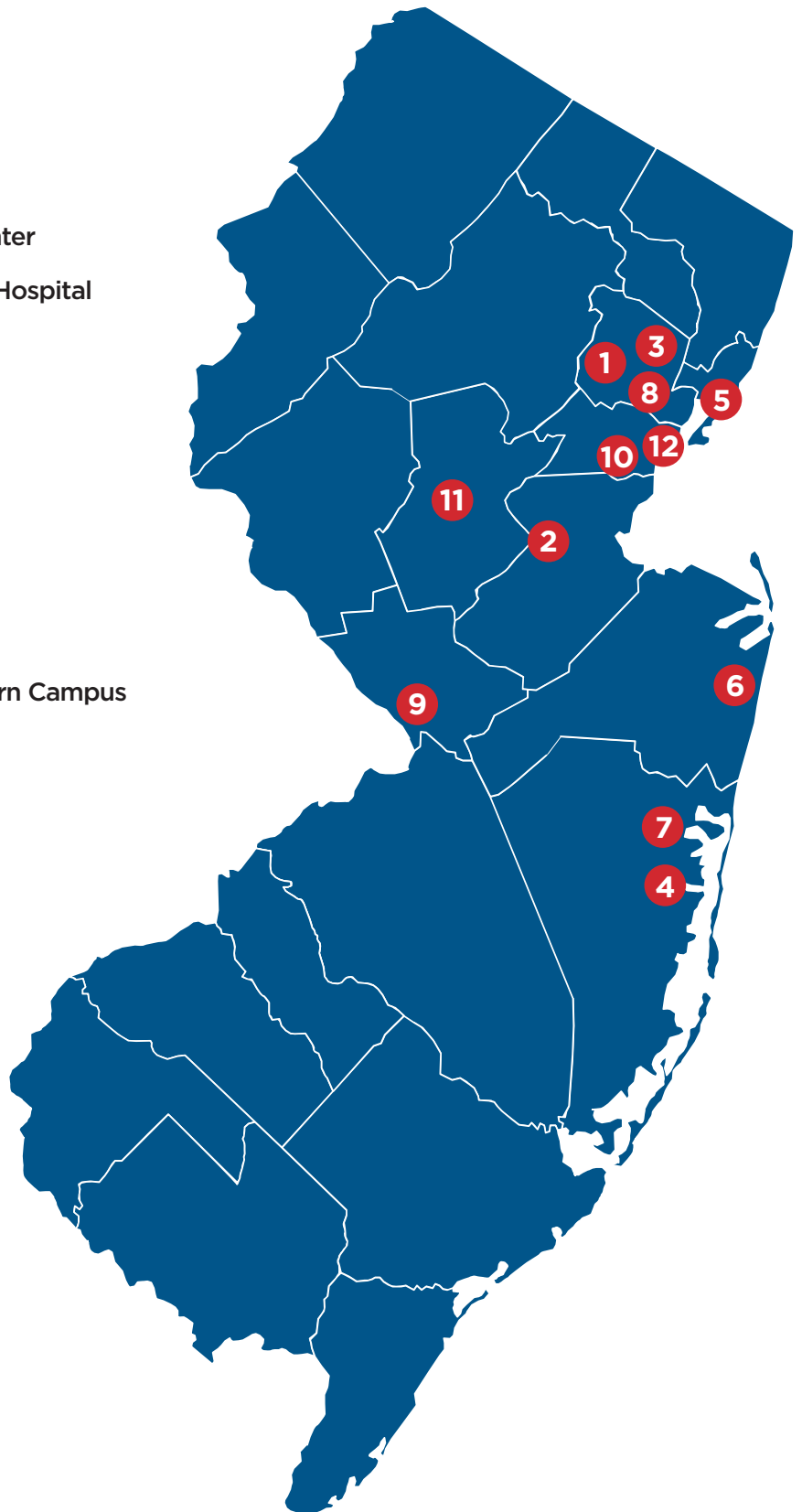
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RWJBarnabas Health Comprehensive Stroke Centers

1. Cooperman Barnabas Medical Center
2. Robert Wood Johnson University Hospital

RWJBarnabas Health Primary Stroke Centers

3. Clara Maass Medical Center
4. Community Medical Center
5. Jersey City Medical Center
6. Monmouth Medical Center
7. Monmouth Medical Center Southern Campus
8. Newark Beth Israel Medical Center
9. Robert Wood Johnson University Hospital Hamilton
10. Robert Wood Johnson University Hospital Rahway
11. Robert Wood Johnson University Hospital Somerset
12. Trinitas Regional Medical Center



rwjbh.org/stroke

Our mission: We are an academic health system, partnering with our communities to build and sustain a healthier New Jersey.