



UR Medicine Stroke & Cerebrovascular Center

Stroke Education

Intracerebral Hemorrhage



**The Joint
Commission**



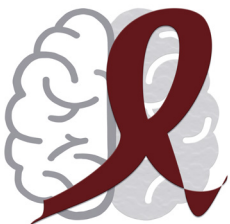
**American Heart
Association
American Stroke
Association**

STROKE CERTIFICATION

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References available upon request



Stroke

Awareness • Hope • Recovery • Support

Together to end stroke.

Stroke Care Team

Welcome to the Comprehensive Stroke Center at UR Medicine's Strong Memorial Hospital

My Medical and Rehab Care Team:

- » Attending Physician
- » Resident Physician
- » Nurse Practitioner
- » Physician Assistant
- » Nurse
- » Patient Care Technician
- » Social Worker
- » Care Coordinator
- » Physical Therapist
- » Occupational Therapist
- » Speech Therapist
- » Students



Our medical, surgical, and rehabilitation team will work together to:

- Evaluate
- Diagnose the type of stroke
- Start treatment
- Provide therapy services
- Make a comprehensive discharge plan

My Stroke Sheet

The type of stroke I had was:

My signs and symptoms were:

My hemorrhagic stroke risk factors:

- High Blood Pressure
- Smoking
- Excessive alcohol Use
- Illegal Drug Use
- Bleeding Disorders
- Long-term Anticoagulation Use
- Blood Vessel Abnormalities
 - AVM
 - Cerebral Aneurysm
- Family History of Hemorrhagic Stroke
- Seizures
- Head Trauma

- Tumor
- Clotting Disorders

Other stroke risk factors:

- Previous Stroke or TIA
- High Cholesterol
- Coronary Artery Disease
- Carotid Artery Disease
- Physical Inactivity
- Obesity/Overweight
- Diabetes
- Atrial Fibrillation
- Sleep Apnea
- Oral Contraceptives
- Hormone Replacement Therapy

My Goal Blood Pressure: _____

| My Medications | What is it for? |
|----------------|-----------------|
| | |
| | |
| | |
| | |
| | |

What is a Stroke?

Your brain cells need a constant supply of blood, oxygen, and nutrients to survive. A stroke occurs when a blood vessel gets blocked or bursts. This stops the blood, oxygen, and nutrients from going to the brain.

Common Stroke Types

Ischemic:

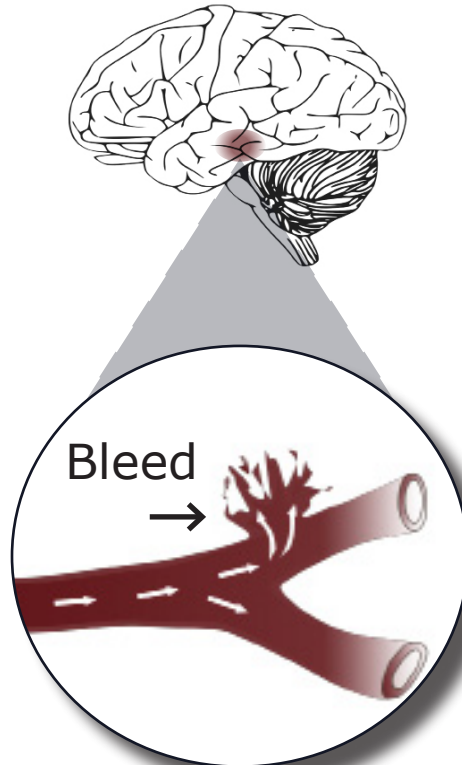
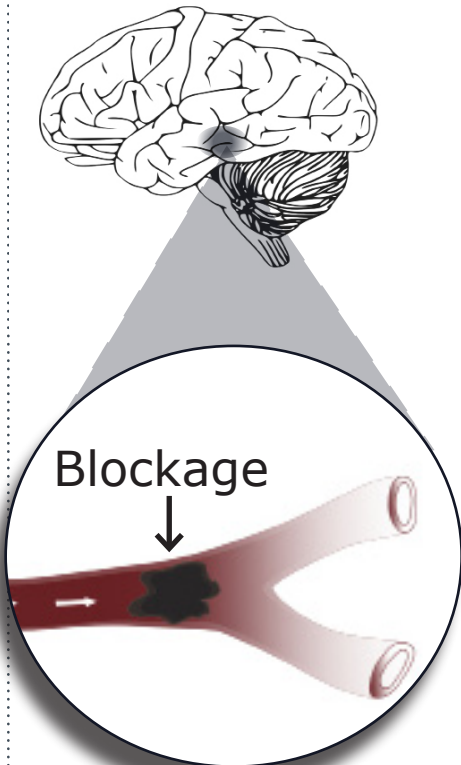
a blood vessel that supplies blood to the brain is blocked.

- Thrombotic or Embolic
- Transient Ischemic Attack (TIA)

Hemorrhagic:

a blood vessel in the brain breaks open and bleeds into or around the brain.

- Subarachnoid Hemorrhage
- Intracerebral Hemorrhage



Stroke Facts:

5th

Leading cause of death in the U.S.

#1

Cause of long-term disability in the U.S.

Every 40 seconds

Someone in the U.S. has a stroke.

2 Million

Brain cells die each minute.

25%

More likely to have another stroke if you've had one in the past.

80%

Of strokes are preventable.

Hemorrhagic Stroke

Hemorrhagic strokes are caused by a weakened blood vessel that ruptures and bleeds into or around the brain.

Two Types of Hemorrhagic Strokes:

1. Intracerebral Hemorrhage
2. Subarachnoid Hemorrhage

- ▶ 13% of all stroke cases
- ▶ 40% of all stroke deaths



Intracerebral Hemorrhage

An intracerebral hemorrhage (ICH) is when a blood vessel in the brain breaks open and blood leaks into the brain tissue nearby. The pressure on the brain can harm brain cells and cause swelling in the brain tissue.

- ▶ 3/4 of hemorrhagic strokes are intracerebral hemorrhages

Intracerebral hemorrhage is an emergency and is associated with a high mortality rate. It is VERY important to get medical attention right away!

Signs and Symptoms

Remember to **BE-FAST!** Time is brain.

| B alance | E yes | F ace | A rm | S peech | T ime |
|------------------------|---|------------------------------------|--|------------------------------------|-------------------|
| Sudden loss of balance | Loss of vision, blurry or double vision | Facial droop, numbness on one side | Weakness or numbness on one side of the body | Slurred speech or trouble speaking | Time to Call 911! |

The Most Common Signs of Hemorrhagic Stroke:

- 1) **Sudden**, severe headache without cause
- 2) **Sudden** and severe nausea or vomiting
- 3) **Sudden** confusion, trouble speaking, or understanding
- 4) **Sudden** numbness or weakness on one side of the body
- 5) **Sudden** loss of vision or double vision
- 6) **Sudden** dizziness, trouble walking, loss of balance
- 7) **Seizure**



Stroke Don'ts

- Ø **Don't** drive yourself to the hospital. Instead, **Call 9-1-1**
- Ø **Don't** eat or drink anything
- Ø **Don't** wait to get treatment
- Ø **Don't** take aspirin or any medication

Risk Factors

Non-Modifiable Risk Factors:

Things I cannot change

- Age
- Sex
- Family History
- Race
- Prior Stroke or TIA
- Clotting Disorder

Modifiable Risk Factors

Things I can change or treat

Hypertension, also known as high blood pressure, is the number one cause of stroke. It is the most important risk factor to control.

- High blood pressure causes 60% of all intracerebral hemorrhages.

Long-term Anticoagulation Use can increase your risk of hemorrhagic stroke. Check with your doctor for guidance about this medication.

- It is important to know which drugs and foods have an effect on your medication.

Smoking doubles your risk for ischemic stroke. It also increases the risk of aneurysm formation and hemorrhagic stroke.

- NYS Quitline: 1-866-697-8487
- Ask your nurse or doctor about nicotine replacement.

Excessive Alcohol and Illegal Drug Use have been associated with hemorrhagic strokes. If you drink, do so in moderation.

- Women: 1 drink per day
- Men: 1-2 drinks per day

Conditions that increase risk of Intracerebral hemorrhage:

Tumor

Seizures

Infection Traumatic Brain Injury

Bleeding or Bleeding Disorders

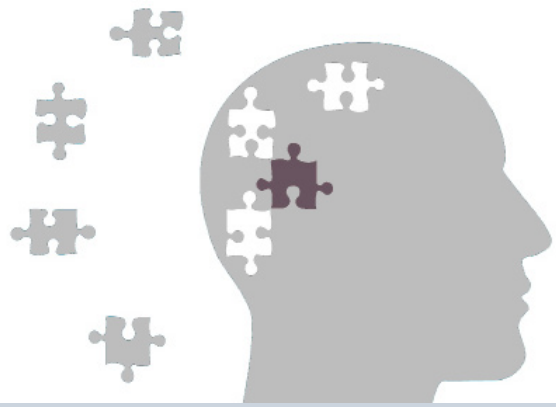
Arteriovenous Malformation (AVM)

Aneurysm

Changes with Stroke

Effects of a stroke can impact:

- Physical Health
- Mental Health
- Emotional Health
- Behavioral Health



Stroke Vocabulary

| | |
|--------------------------|---|
| Hemiparesis | Weakness on one side of the body |
| Hemiplegia | No movement on one side of the body |
| Dysphagia | Trouble swallowing |
| Aphasia | Trouble speaking or understanding |
| Dysarthria | Slurred speech |
| One-sided neglect | Ignoring or forgetting your weak or paralyzed side |
| Visual changes | Decreased area of vision or trouble with perception |
| Emotions | Loss of emotional control and changes in mood |
| Cognitive changes | Problems with memory, judgement, or problem-solving |
| Behavior changes | Personality changes, improper language or actions |

Fatigue is the most common change after a stroke. It may last for months, but will get better.

Post-Stroke Depression

$\frac{1}{3}$

Post-stroke depression (PSD) affects more than 1/3 of stroke patients.

When can it happen?

PSD can occur in weeks, months, or even years after your stroke.

What is the cause?

A combination of genetics, social factors, and damage to your brain after a stroke can lead to depression.

What are the symptoms?

- » Persistent sad or anxious feelings; irritability
- » Trouble sleeping and fatigue; trouble staying focused
- » Appetite changes or digestive issues
- » Feeling hopeless, helpless, and/or worthless
- » Loss of interest in activities, hobbies, or being social
- » Suicidal thoughts

What are the treatment options?

Medication. Antidepressants can be prescribed to improve mood.

Mental Health Therapy. Medication can be combined with mental health therapy to improve outcomes.

What if it's left untreated?

Post-stroke depression can stop progress of recovery and rehabilitation, which can lower your quality of life.

Stroke Prevention

Medications

Medical and surgical treatment is based on the cause of the intracerebral hemorrhage.

Treatment goals:

- Stop the bleeding
- Control blood pressure
- Treatment of pain and nausea
- Decrease swelling in the brain

How do I manage my blood pressure?

- Medications are often needed in order to prevent another stroke. It is very important that you take the medications as directed and do not skip doses.
- Keep track of your blood pressure using a diary or notebook.
- Exercise: Be more physically active. Try taking the stairs or taking a walk every day.
- Healthy diet: eat a heart-healthy diet and lower your salt intake.



Questions? Ask your doctor or nurse for more information on medical or surgical treatment of ICH.



Anti-hypertensives

Anti-hypertensives are medications that lower your blood pressure and/or heart rate. There are many different kinds.

Anti-Seizure Medications

Anti-seizure medications are used to prevent seizures. It is important to take your medication exactly as prescribed. There are many risks if you suddenly stop taking this medication.

- Do **NOT** stop taking this medication without talking to your healthcare provider.

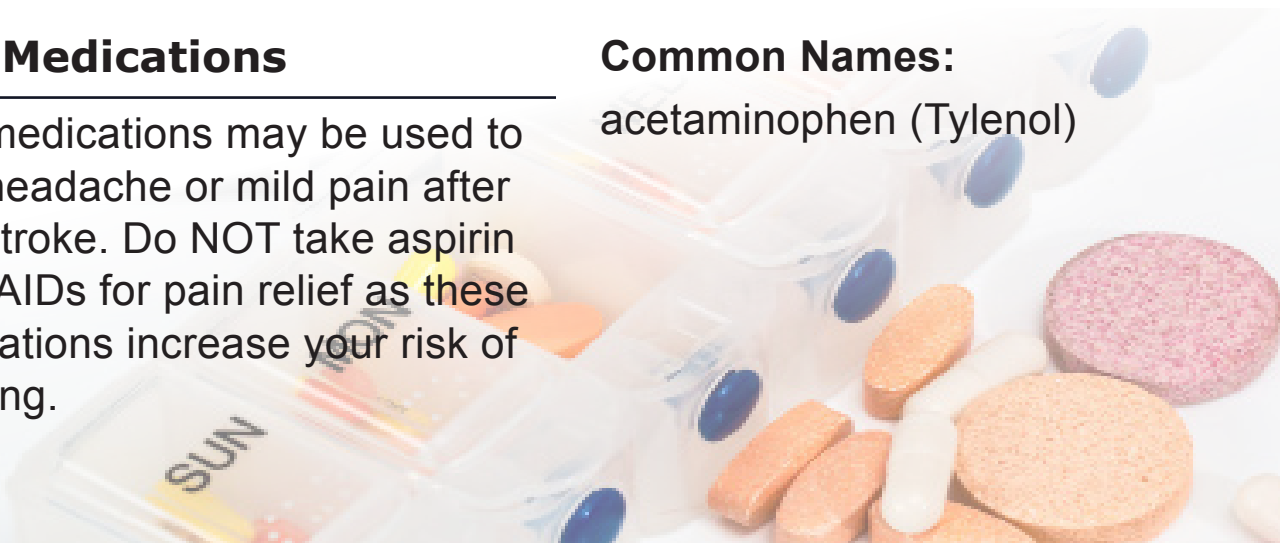
Pain Medications

Pain medications may be used to treat headache or mild pain after your stroke. Do NOT take aspirin or NSAIDs for pain relief as these medications increase your risk of bleeding.

Common names: amlodipine (Norvasc), carvedilol (Coreg), diltiazem (Cardizem), hydrochlorothiazide (Microzide), lisinopril (Zestril), losartan (Cozaar), and metoprolol (Lopressor) are just a few of the most frequently prescribed.

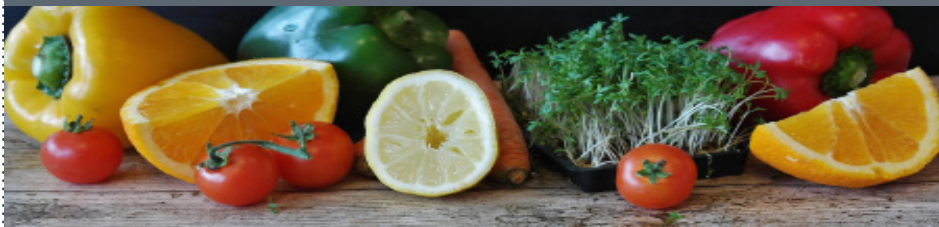
Common Names:
levetiracetam (Keppra)

Common Names:
acetaminophen (Tylenol)



Stroke Prevention

Lifestyle Modification



Healthy & Balanced Diet

Small changes can make a big difference.

- ↓ Reduce saturated fats
- ↓ Reduce sugar intake
- ↓ Reduce salt intake

Diets for Brain and Heart Health:

- The DASH (Dietary Approaches to Stop Hypertension) Diet
- Mediterranean Diet

American Heart Association

Recipes:

[recipes.heart.org](https://www.heart.org/recipes)

Meal assistance?

Check for Meals On Wheels or online food delivery.

Healthy Eating Shopping List

Fruits & Vegetables: bananas, apples, oranges, strawberries, blueberries, sweet potatoes, spinach, broccoli, carrots, eggplant, kale

Dairy, Cheese, & eggs: low-fat or fat-free dairy products

Meat & Seafood: skinless poultry and fish rich in omega 3 fatty acids (salmon, tuna, trout), beans

Bread, Pasta, & Cereal:

whole wheat pasta and breads, quinoa, couscous, oatmeal, brown rice, high-fiber cereal

Weight Loss & Physical Activity

Regular exercise strengthens the body and helps you lose weight. It can also lower your risk of heart disease, high cholesterol, diabetes, and stroke.

American Heart Association Recommendations:

30 minutes of exercise daily

▶ or 150 minutes of moderate-intensity exercise per week

2 days of strength training per week

▶ Use resistance or weights



Stroke Prevention Checklist

- Lower blood pressure
- Quit smoking
- Limit alcohol intake:
Men: 1-2 drinks/day
Women: 1 drink/day
- Do not use illegal drugs
- Eat a healthy, balanced diet
- Take all medications as prescribed
- Exercise 30 minutes per day
- Manage medical conditions
- Attend follow-up appointments
- Get enough sleep
- Reduce stress



Join a Support Group

strokeassociation.org/

Find a support group in your area. Support groups are available for both patients and caregivers!

Help
Support
Connect

Patient and Family Resources

Social workers provide services both in the hospital and the community setting.

UR Medicine Social Work

585-275-2851

urmc.rochester.edu/social-work/

Monday-Friday 8am-5pm

Social work can help with:

- Respite care or caregiver relief
- Adult day care programs
- Transportation programs
- Community resources



**Call
911**

**for any new
stroke symptoms!**



American Stroke Association Resources:

American Stroke Association

strokeassociation.org

Support Group Registry

Support groups by ZIP Code

strokeassociation.org/strokegroup

1-888-4-STROKE (888-478-7653)

Support Network

Online support community

strokeassociation.org/supportnetwork

Stroke Connection Magazine

strokeconnection.org

Warmline

Ask questions and get support

1-888-4-STROKE (888-478-7653)

Tips for Daily Living Library

strokeassociation.org/tips

Finger Lakes 211 Lifeline

Finding Local Resources

Connecting people with community, social, health, and government services for help with housing, food, mental health, employment, and financial resources.

Contact Information:

211lifeline.org

Dial 2-1-1 or

1-877-356-9211



UR Medicine Outpatient Stroke Center

- **Neurology:**
(585) 275-2530
- **Neurosurgery:**
(585) 273-1900

Additional Resources:

Internet Stroke Center

strokecenter.org

National Institute of Health

stroke.nih.gov

ninds.nih.gov

National Rehabilitation Information Center

Stroke rehabilitation and disability resources

naric.com

Centers for Disease Control

cdc.gov/stroke

Aphasia hope Foundation

Aphasia information and resources
aphasiahope.org

Respite Care

eldercare.gov

Caregiver Action Network

http://caregiveraction.org

Family Caregiver Alliance

https://www.caregiver.org

