If you suspect a Stroke: Don’t wait:
Act FAST

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Goals for tonight:

• What is a Stroke?
• What could you see or experience?
• What should you do? You have the power to help.
• Why is time SO important?
• What can be done to prevent one?
Did you know that:

• In the United States:
  – New stroke every 45 seconds (700,000/yr)
  – Death from a stroke every 3 minutes (150,000/yr)
  – 3rd leading cause of death
How about this?

Stroke is the **leading** cause of adult disability?
Stroke Facts

• Stroke is referred to as “brain attack.”

• Stroke is a sudden neurological deficit caused by interruption of blood flow to the brain.

• Manifestations of the stroke depend on which region or extent of brain affected.

• Brain has blood vessels. Like a tree, large “branches” and small ones which carry nutrients. If larger blood vessels are blocked more of the brain can be damaged.
What kinds of Stroke?

An interruption of blood flow to the brain which leads to brain injury.

Ischemic = “blockage”: 85%

Hemorrhagic = “bleeding”: 15%
More detail: Types of Stroke

**Ischemic**
- Blockage usually by fatty deposits
- Thrombus or blood clot at the fatty deposit cutting off blood supply to that are of the brain.
- “Core” area with no blood flow is the area trying to be saved.

**Hemorrhagic**
- Blood between surface of skull and brain
- Commonly from a bulging of an artery within the brain that has burst.
- Long standing high BP or hypertension places stress on vessels causing a break
What is a “mini-stroke”? 

- aka “Transient ischemic attack” (TIA)
- Warning sign of a future stroke – up to 40% of TIA patients will have a future stroke
- **Symptoms of TIAs are the same as stroke**
- TIA symptoms can resolve within minutes or hours
- It is important to seek immediate medical attention if you suspect that you are having or have had a TIA
What puts me at risk?
Common Signs of Stroke

- Sudden numbness or weakness, especially on one side of the body
- Sudden confusion, trouble speaking or understanding
- Sudden trouble seeing
- Sudden trouble walking or loss of balance
- Sudden, severe headache
FAST

SPOT A STROKE

FACE DROPPING
ARM WEAKNESS
SPEECH DIFFICULTY
TIME TO CALL 911

Stroke Warning Signs and Symptoms
TIME LOST IS BRAIN LOST

- The oxygen rich blood is NOT flowing to an area of the brain
- 1.9 MILLION Neurons destroyed every minute!
What if you are not sure?

"Body Language" of Stroke

• **F** = FACE: Ask the person to smile.
• **A** = ARM: Ask the person to raise both arms.
• **S** = SPEECH: Ask the person to speak a simple sentence.
• **T** = TIME: If you observe any of these signs, call 9-1-1 immediately.
What speech might I hear?

• Slurred
• Garbled- drunk sounding
• Pauses: person cannot say what they want to say
• Words do not come out right-gibberish
• Result of damage to brain areas of language: Aphasia.
What Next? Panic?

• NO!!! Call 911
  • Don’t try to bring the person yourself
  • EMS communicates with the hospital and can help if symptoms worsen or change
  • Do not ignore the symptoms even if they go away!!
OK, I didn’t Panic, what now?

- Keep your person calm and safe
- Notice the time the symptoms started
- If person woke up with the symptoms when did you last see them “normal”.

Knowing changes everything.”
What can you expect at the hospital?

- **SCAN** your brain – CT scan ASAP!
- Blood sugar - Blood Pressure
- Assess your symptoms - Neurologist
- t-PA Activase Clot buster - Candidate?
- Possible Intervention
- MRI and Therapy Evaluations
tPA Clot Buster

- Only FDA approved treatment
- Time sensitive-3 hour window
- Criteria for getting it
- Earlier you get it, less risk of bleeding
- Not cure, but return to function!
- Available at Stroke Centers
**If not tPA, what can be done?**

**Endovascular Procedures**

- Cerebral Angiogram: using a catheter with a device to break up or suck out the clot restoring blood flow.
- Coiling or clipping of the ruptured artery wall, closing it off, making for smoother blood flow.
## The Benefits of Acute Stroke Intervention

Your rapid action and response to this **Acute Ischemic Stroke** patient allowed her to be treated **interventionally**!

<table>
<thead>
<tr>
<th><strong>PATIENT PRESENTATION</strong></th>
<th><strong>DIAGNOSIS</strong></th>
<th><strong>TREATMENT</strong></th>
<th><strong>OUTCOME</strong></th>
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<tbody>
<tr>
<td>➤ 80 y/o female with a history of hypertension and atrial fibrillation</td>
<td>➤ NIHSS 11</td>
<td>➤ Cerebral angiogram revealed a left middle cerebral artery occlusion</td>
<td>➤ Post-Intervention Cerebral Angio</td>
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<tr>
<td>➤ The patient had symptoms of aphasia and right-sided hemiparesis</td>
<td>➤ Non-contrast CT scan was obtained to rule out hemorrhagic stroke</td>
<td>➤ tPA was not administered due to the patients age</td>
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<td>➤ 911 was called and the patient was immediately transported to University Hospital Syracuse by TLC Ambulance Service</td>
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<td>➤ Two passes with the MERCi L5 Retriever resulted in revascularization of the middle cerebral artery</td>
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<td>➤ Patient presented in less than 3 hours of stroke symptom onset</td>
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**Clinical Status:**

- The entire middle cerebral artery is opened post procedure (TIMI III)
- The patient was speaking and moving all extremities (NIHSS 1)

Despite the patients advanced age, transferring her to a hospital offering interventional stroke treatment provided the patient an opportunity for a full clinical recovery.

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Merci Hospital: University Hospital Syracuse  
EMS Squad Involved: TLC Ambulance Service  
Interventional Neurologist: Dr. Lodi

Knowing changes everything.
Stroke “Mimics” Yes, but you won’t know till you go!

- Migraines- complex
- Bells Palsy
- Seizure activity
- Heart issues-
  Syncope
How can I lower my risk?

- **BLOOD PRESSURE**: #1 thing to pick: biggest impact!
- Increase activity
- Stop smoking
- Control cholesterol - healthy diet
Typical After Stroke “Rx”

- Aspirin
- BP med-management
- Statin med- regular checking
- Checking heart – set up monitor appt
- Nutrition counseling
- Sleep Apnea
- Upstate Stroke Clinic- follow-up
- Therapy- Physical, Occupational, Speech
What is a Comprehensive Stroke Center?

- Certified by DNV Healthcare
- Cares for ALL types of stroke patients
- 24/7 access to endovascular procedures
- 24/7 on site neurosurgical availability
- Three levels of specialized neuroscience nursing care
  - Neuro ICU
  - Neuro Step-down
  - Neuro floor
- Multidisciplinary approach to stroke care across the continuum of the disease process
- Catheter based therapy for patients beyond the tPA window.
- Only 5 Comprehensive Stroke Centers in NYS
CNY Stroke Support Group

- Will be held the third Monday of the month, from 5pm -7pm, at Healthlinks: All are welcome