



**Reference 8 Stroke Scales**

**Cincinnati Prehospital Stroke Scale**

**Interpretation: if any of these 3 signs is abnormal, the probability of a stroke is 72%**

 <p><b>Arm Drift</b> <i>The patient closes eyes and extends both arms straight out, with palms up for 10 seconds</i></p> <ul style="list-style-type: none"> <li>• Normal – both arms move the same or both arms do not move at all (other findings, such as pronator drift, may be helpful)</li> <li>• <b>Abnormal – one arm does not move or one arm drifts downward</b></li> </ul>	 <p><b>Facial Droop</b> <i>The patient shows teeth or smile</i></p> <ul style="list-style-type: none"> <li>• Normal – both sides of the face move equally</li> <li>• <b>Abnormal – one side of the face does not move as well as the other side</b></li> </ul>
<p><b>Abnormal Speech</b> <i>The patient repeats “you can’t teach an old dog new tricks”</i></p> <ul style="list-style-type: none"> <li>• Normal – patient uses correct words with no slurring</li> <li>• <b>Abnormal – patient slurs words, uses the wrong words, or is unable to speak</b></li> </ul>	

**Table 2. Los Angeles Prehospital Stroke Screen (LAPSS)**

Screening Criteria	Yes	No	
1. Age over 45 years	___	___	
2. No prior history of seizure disorder	___	___	
3. New onset of neurologic symptoms in last 24 hours	___	___	
4. Patient was ambulatory at baseline (prior to event)	___	___	
5. Blood glucose between 60 and 400	___	___	
<b>Exam: look for obvious</b>			
	<b>Normal</b>	<b>Right</b>	<b>Left</b>
<b>Facial smile / grimace:</b>	___	___ Droop	___ Droop
<b>Grip:</b>	___	___ Weak Grip ___ No Grip	___ Weak Grip ___ No Grip
<b>Arm weakness:</b>	___	___ Drifts Down ___ Falls Rapidly	___ Drifts Down ___ Falls Rapidly
6. Based on exam, patient has only unilateral weakness: Y/N	___	___	___
<b>If Yes (or unknown) to all items above, LAPSS screening criteria met.</b>			
If LAPSS criteria for stroke met, call receiving hospital with “code stroke.” If not, then return to the appropriate treatment protocol. (Note: the patient may still be experiencing a stroke even if LAPSS criteria are not met.)			

# HEALTHEAST MEDICAL TRANSPORTATION MEDICAL OPERATIONS MANUAL

## Miami Emergency Neurological Deficit (MEND)

**X = abnormal**      **MEND**      **MENTAL STATUS**

LOC: A:  V:  P:  U:

Speech: "You can't teach an old dog new tricks".

Questions (age, month)

Commands (close, open eyes)

**CRANIAL NERVES**

L Facial Droop (show teeth or smile)  R

L Visual Fields (four quadrants)  R

L Horizontal Gaze (side to side)  R

**LIMBS**

L Drift-Arm (close eyes, hold out arms)  R

History   On Scene   **MEND**   Management   ED Report

Back

✓ = abnormal      **MEND ONE**

LOC: A   V   P   U

Speech: "You can't teach an old dog new tricks"

Questions (age, month)

Commands (close, open eyes)

**CRANIAL NERVES**

L Facial Droop (show teeth or smile)  R

L Visual Fields (four quadrants)  R

L Horizontal Gaze (side to side)  R

**LIMBS**

L Drift-Arm (close eyes, hold out arms)  R

L Drift - Leg (open eyes, lift each leg separately)  R

L Sensory - Arm (close eyes & touch, pinch)  R

L Sensory - Leg (close eyes & touch, pinch)  R

## Rapid Arterial Occlusion Evaluation: RACE

ITEM	Instruction	Result	Score	NIHSS Equivalent
<b>Facial Palsy</b>	Ask patient to show their teeth (smile)	<b>Absent</b> (symmetrical movement)	<b>0</b>	0-3
		<b>Mild</b> (slight asymmetrical)	<b>1</b>	
		<b>Moderate to Severe</b> (completely asymmetrical)	<b>2</b>	
<b>Arm Motor Function</b>	Extending the arm of the patient 90° (if sitting) or 45° (if supine)	<b>Normal to Mild</b> (limb upheld more than 10 seconds)	<b>0</b>	0-4
		<b>Moderate</b> (limb upheld less than 10 seconds)	<b>1</b>	
		<b>Severe</b> (patient unable to raise arm against gravity)	<b>2</b>	
<b>Leg Motor Function</b>	Extending the leg of the patient 30° (in supine)	<b>Normal to Mild</b> (limb upheld more than 5 seconds)	<b>0</b>	0-4
		<b>Moderate</b> (limb upheld less than 5 seconds)	<b>1</b>	
		<b>Severe</b> (patient unable to raise leg against gravity)	<b>2</b>	
<b>Head &amp; Gaze Deviation</b>	Observe eyes and head deviation to one side	<b>Absent</b> (eye movements to both sides were possible and no head deviation was observed)	<b>0</b>	0-2
		<b>Present</b> (eyes and head deviation to one side was observed)	<b>1</b>	
<b>Aphasia (R side)</b>	Difficulty understanding spoken or written words. Ask patient to follow two simple commands: 1. Close your eyes. 2. Make a fist.	<b>Normal</b> (performs both tasks requested correctly)	<b>0</b>	0-2
		<b>Moderate</b> (performs only 1 of 2 tasks requested correctly)	<b>1</b>	
		<b>Severe</b> (Cannot perform either task requested correctly)	<b>2</b>	
<b>Agnosia (L side)</b>	Inability to recognize familiar objects. Ask patient: 1. "Whose arm is this?" (while showing the affected arm) 2. "Can you move your arm?"	<b>Normal</b> (recognizes arm, and attempts to move arm)	<b>0</b>	0-2
		<b>Moderate</b> (does not recognize arm or is unaware of arm)	<b>1</b>	
		<b>Severe</b> (does not recognize arm and is unaware of arm)	<b>2</b>	

### RACE SCALE TOTAL

Any score above 4 is a Stroke Alert and high likelihood of an LVO