



American Heart Association | American Stroke Association
Learn and LiveSM

The Cincinnati Prehospital Stroke Scale

(Kothari R, et al, Acad Emerg Med. 1997; 4:986-990.)

Facial Droop (have patient show teeth or smile):

- Normal – both sides of face move equally
- Abnormal – one side of face does not move as well as the other side



Left: normal. Right: stroke patient with facial droop (right side of face).

Arm Drift (patient closes eyes and extends both arms straight out for 10 seconds):

- Normal – both arms move the same or both arms do not move at all (other findings, such as pronator drift, may be helpful)
- Abnormal – one arm does not move or one arm drifts down compared with the other



Left: normal. Right: one-sided motor weakness (right arm).

Abnormal Speech (have the patient say "you can't teach an old dog new tricks"):

- Normal – patient uses correct words with no slurring
- Abnormal – patient slurs words, uses the wrong words, or is unable to speak

Interpretation: If any 1 of these 3 signs is abnormal, the probability of a stroke is 72%

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**Remember to document
time last seen normal
for patient.**

Michigan Department
of Community Health
MDCH
Jennifer M. Granholm, Governor
Janet Olszewski, Director

Michigan EMS

Adult Treatment Protocols

CEREBROVASCULAR ACCIDENT (CVA, STROKE)

Cerebrovascular Accident (CVA, Stroke)

1. Follow General Pre-hospital Care Protocol
 2. Measure blood glucose
 - a. If blood glucose less than 60 mg/dl treat per Acute Altered Mental Status Protocol
 3. If seizure, follow Seizure Protocol
 4. Utilize the Cincinnati Pre-hospital Stroke Scale. Try to elicit the following signs:
 - a. Facial droop (have patient show teeth or smile)
 - b. Arm drift (have patient close eyes and hold both arms straight out for 10 seconds)
 - c. Abnormal speech (have patient say "The sky is blue in Michigan")
 5. Document time last seen normal (for patient)
 6. Minimize scene time and begin transport. Initiate vascular access and monitor EKG. (**DO NOT** delay scene time for IV and EKG monitoring)
 7. Make contact with destination hospital, notify as soon as possible
 8. Contact Medical Control
- May 2009

Report to ED:

Possible IV t-PA Contraindications:

- Symptom onset more than 180 minutes
- Head trauma or seizure at onset
- Recent surgery, hemorrhage, or AMI
- Any history of intracranial hemorrhage
- Minor or resolving stroke
- Sustained BP > 185/110-but EMS do not treat!

Adapted from Univ. of Miami Advanced Stroke Life Support

Encourage family to go to hospital to provide medical history, or obtain contact information for person who can provide medical history.