# NIH Stroke Scale

The NINDS tPA Stroke Trial No. ___ ___ - ___ ___ ___ - ___ ___ ___

Pt. Date of Birth ___ ___ / ___ ___ / ___ ___

Hospital _____ ( ___ ___ - ___ ___ )

Date of Exam ___ ___ / ___ ___ / ___ ___

Interval: 1 ☐ Baseline 2 ☐ 2 hours post treatment 3 ☐ 24 hours post onset of symptoms 6 minutes
4 ☐ 7–10 days 5 ☐ 3 months 6 ☐ Other _____ ( ___ _____ )

Time: ___ ___:___ ___ 1 ☐ am 2 ☐ pm

Administer stroke scale items in the order listed. Record performance in each category after each subscale exam. Do not go back and change scores. Follow directions provided for each exam technique. Scores should reflect what the patient does, not what the clinician thinks the patient can do. The clinician should record answers while administering the exam and work quickly. Except where indicated, the patient should not be coached (i.e., repeated requests to patient to make a special effort).

**IF ANY ITEM IS LEFT UNTESTED, A DETAILED EXPLANATION MUST BE CLEARLY WRITTEN ON THE FORM. ALL UNTESTED ITEMS WILL BE REVIEWED BY THE MEDICAL MONITOR, AND DISCUSSED WITH THE EXAMINER BY TELEPHONE.**

| Instructions | Scale Definition | Score |
|---|---|---|
| **1a. Level of Consciousness:** The investigator must choose a response, even if a full evaluation is prevented by such obstacles as an endotracheal tube, language barrier, orotracheal trauma/bandages. A 3 is scored only if the patient makes no movement (other than reflexive posturing) in response to noxious stimulation. | 0 = Alert; keenly responsive.<br>1 = Not alert, but arousable by minor stimulation to obey, answer, or respond.<br>2 = Not alert, requires repeated stimulation to attend, or is obtunded and requires strong or painful stimulation to make movements (not stereotyped).<br>3 = Responds only with reflex motor or autonomic effects or totally unresponsive, flaccid, areflexic. | _____ |
| **1b. LOC Questions:** The patient is asked the month and his/her age. The answer must be correct — there is no partial credit for being close. Aphasic and stuporous patients who do not comprehend the questions will score 2. Patients unable to speak because of endotracheal intubation, orotracheal trauma, severe dysarthria from any cause, language barrier or any other problem not secondary to aphasia are given a 1. It is important that only the initial answer be graded and that the examiner not "help" the patient with verbal or non-verbal cues. | 0 = Answers both questions correctly.<br>1 = Answers one question correctly.<br>2 = Answers neither question correctly. | _____ |
| **1c. LOC Commands:** The patient is asked to open and close the eyes and then to grip and release the non-paretic hand. Substitute another one-step command if the hands cannot be used. Credit is given if an unequivocal attempt is made but not completed due to weakness. If the patient does not respond to command, the task should be demonstrated to them (pantomime) and score the result (i.e., follows none, one or two commands). Patients with trauma, amputation, or other physical impediments should be given suitable one-step commands. Only the first attempt is scored. | 0 = Performs both tasks correctly<br>1 = Performs one task correctly<br>2 = Performs neither task correctly | _____ |

# NIH Stroke Scale

The NINDS tPA Stroke Trial No. ___ ___ - ___ ___ ___ - ___ ___ ___
Pt. Date of Birth ___ ___ / ___ ___ / ___ ___
Hospital _____ ( ___ ___ - ___ ___ )
Date of Exam ___ ___ / ___ ___ / ___ ___

Interval: 1 ☐ Baseline 2 ☐ 2 hours post treatment 3 ☐ 24 hours post onset of symptoms 6 minutes
4 ☐ 7–10 days 5 ☐ 3 months 6 ☐ Other _____ ( ___ _____ )

| Instructions | Scale Definition | Score |
|---|---|---|
| **2. Best Gaze:** Only horizontal eye movements will be tested. Voluntary or reflexive (oculocephalic) eye movements will be scored but caloric testing is not done. If the patient has a conjugate deviation of the eyes that can be overcome by voluntary or reflexive activity, the score will be 1. If a patient has an isolated peripheral nerve paresis (CN III, IV or VI) score a 1. Gaze is testable in all aphasic patients. Patients with ocular trauma, bandages, pre-existing blindness or other disorder of visual acuity or fields should be tested with reflexive movements and a choice made by the investigator. Establishing eye contact and then moving about the patient from side to side will occasionally clarify the presence of a partial gaze palsy. | 0 = Normal<br>1 = Partial gaze palsy. This score is given when gaze is abnormal in one or both eyes, but where forced deviation or total gaze paresis are not present.<br>2 = Forced deviation, or total gaze paresis not overcome by the oculocephalic maneuver. | _____ |
| **3. Visual:** Visual fields (upper and lower quadrants) are tested by confrontation, using finger counting or visual threat as appropriate. Patient must be encouraged, but if they look at the side of the moving fingers appropriately, this can be scored as normal. If there is unilateral blindness or enucleation, visual fields in the remaining eye are scored. Score 1 only if a clear-cut asymmetry, including quadrantanopia is found. If patient is blind from any cause, score 3. Double simultaneous stimulation is performed at this point. If there is extinction, patient receives a 1, and the results are used to answer question 11. | 0 = No visual loss<br>1 = Partial hemianopia<br>2 = Complete hemianopia<br>3 = Bilateral hemianopia (blind including cortical blindness) | _____ |
| **4. Facial Palsy:** Ask, or use pantomime to encourage the patient to show teeth or raise eyebrows and close eyes. Score symmetry of grimace in response to noxious stimuli in the poorly responsive or non-comprehending patient. If facial trauma/bandages, orotracheal tube, tape or other physical barrier obscures the face, these should be removed to the extent possible. | 0 = Normal symmetrical movement<br>1 = Minor paralysis (flattened nasolabial fold, asymmetry on smiling)<br>2 = Partial paralysis (total or near total paralysis of lower face)<br>3 = Complete paralysis of one or both sides (absence of facial movement in the upper and lower face) | _____ |

# NIH Stroke Scale

The NINDS tPA Stroke Trial No. ___ ___ - ___ ___ ___ - ___ ___ ___
Pt. Date of Birth ___ ___ / ___ ___ / ___ ___
Hospital _____ ( ___ ___ - ___ ___ )
Date of Exam ___ ___ / ___ ___ / ___ ___

Interval: 1 ☐ Baseline 2 ☐ 2 hours post treatment 3 ☐ 24 hours post onset of symptoms 6 minutes
4 ☐ 7–10 days 5 ☐ 3 months 6 ☐ Other _____ ( ___ _____ )

| Instructions | Scale Definition | Score |
|---|---|---|
| **5 & 6. Motor Arm and Leg:** The limb is placed in the appropriate position: extend the arms (palms down) 90 degrees (if sitting) or 45 degrees (if supine) and the leg 30 degrees (always tested supine). Drift is scored if the arm falls before 10 seconds or the leg before 5 seconds. The aphasic patient is encouraged using urgency in the voice and pantomime but not noxious stimulation. Each limb is tested in turn, beginning with the non-paretic arm. Only in the case of amputation or joint fusion at the shoulder or hip may the score be "9" and the examiner must clearly write the explanation for scoring as a "9." | 0 = No drift, limb holds 90 (or 45) degrees for full 10 seconds.<br>1 = Drift, Limb holds 90 (or 45) degrees, but drifts down before full 10 seconds; does not hit bed or other support.<br>2 = Some effort against gravity, limb cannot get to or maintain (if cued) 90 (or 45) degrees, drifts down to bed, but has some effort against gravity.<br>3 = No effort against gravity, limb falls.<br>4 = No movement<br>9 = Amputation, joint fusion explain:<br>_____ | |
| | **5a. Left Arm** | _____ |
| | **5b. Right Arm** | _____ |
| | 0 = No drift, leg holds 30 degrees position for full 5 seconds.<br>1 = Drift, leg falls by the end of the 5-second period but does not hit bed.<br>2 = Some effort against gravity; leg falls to bed by 5 seconds, but has some effort against gravity.<br>3 = No effort against gravity, leg falls to bed immediately.<br>4 = No movement<br>9 = Amputation, joint fusion explain:<br>_____ | |
| | **6a. Left Leg** | _____ |
| | **6b. Right Leg** | _____ |

# NIH Stroke Scale

The NINDS tPA Stroke Trial No. ___ ___ - ___ ___ ___ - ___ ___ ___

Pt. Date of Birth ___ ___ / ___ ___ / ___ ___

Hospital _____ ( ___ ___ - ___ ___ )

Date of Exam ___ ___ / ___ ___ / ___ ___

Interval: 1 ☐ Baseline 2 ☐ 2 hours post treatment 3 ☐ 24 hours post onset of symptoms 6 minutes
4 ☐ 7–10 days 5 ☐ 3 months 6 ☐ Other _____ ( ___ _____ )

| Instructions | Scale Definition | Score |
|---|---|---|
| **7. Limb Ataxia:** This item is aimed at finding evidence of a unilateral cerebellar lesion. Test with eyes open. In case of visual defect, ensure testing is done in intact visual field. The finger-nose-finger and heel-shin tests are performed on both sides, and ataxia is scored only if present out of proportion to weakness. Ataxia is absent in the patient who cannot understand or is paralyzed. Only in the case of amputation or joint fusion may the item be scored "9," and the examiner must clearly write the explanation for not scoring. In case of blindness, test by touching nose from extended arm position. | 0 = Absent<br>1 = Present in one limb<br>2 = Present in two limbs | _____ |
| | If present, is ataxia in<br>Right arm 1 = Yes 2 = No<br>9 = amputation or joint fusion, explain<br>_____ | _____ |
| | Left arm 1 = Yes 2 = No<br>9 = amputation or joint fusion, explain<br>_____ | _____ |
| | Right leg 1 = Yes 2 = No<br>9 = amputation or joint fusion, explain<br>_____ | _____ |
| | Left leg 1 = Yes 2 = No<br>9 = amputation or joint fusion, explain<br>_____ | _____ |
| **8. Sensory:** Sensation or grimace to pinprick when tested, or withdrawal from noxious stimulus in the obtunded or aphasic patient. Only sensory loss attributed to stroke is scored as abnormal and the examiner should test as many body areas [arms (not hands), legs, trunk, face] as needed to accurately check for hemisensory loss. A score of 2, "severe or total," should only be given when a severe or total loss of sensation can be clearly demonstrated. Stuporous and aphasic patients will therefore probably score 1 or 0. The patient with brain stem stroke who has bilateral loss of sensation is scored 2. If the patient does not respond and is quadriplegic, score 2. Patients in coma (item 1a=3) are arbitrarily given a 2 on this item. | 0 = Normal; no sensory loss.<br>1 = Mild to moderate sensory loss; patient feels pinprick is less sharp or is dull on the affected side; or there is a loss of superficial pain with pinprick but patient is aware he/she is being touched.<br>2 = Severe to total sensory loss; patient is not aware of being touched in the face, arm, and leg. | _____ |
| **9. Best Language:** A great deal of information about comprehension will be obtained during the preceding sections of the examination. The patient is asked to describe what is happening in the attached picture, to name the items on the attached naming sheet, and to read from the attached list of sentences. Comprehension is judged from responses here as well as to all of the commands in the preceding general neurological exam. If visual loss interferes with the tests, ask the patient to identify objects placed in the hand, repeat, and produce speech. The intubated patient should be asked to write. The patient in coma (question 1a=3) will arbitrarily score 3 on this item. The examiner must choose a score in the patient with stupor or limited cooperation but a score of 3 should be used only if the patient is mute and follows no one-step commands. | 0 = No aphasia, normal<br>1 = Mild to moderate aphasia; some obvious loss of fluency or facility of comprehension, without significant limitation on ideas expressed or form of expression. Reduction of speech and/or comprehension, however, makes conversation about provided material difficult or impossible. For example, in conversation about provided materials, examiner can identify picture or naming card from patient's response.<br>2 = Severe aphasia; all communication is through fragmentary expression; great need for inference, questioning, and guessing by the listener. Range of information that can be exchanged is limited; listener carries burden of communication. Examiner cannot identify materials provided from patient response.<br>3 = Mute, global aphasia; no usable speech or auditory comprehension. | _____ |

# NIH Stroke Scale

The NINDS tPA Stroke Trial No. ___ ___ - ___ ___ ___ - ___ ___ ___
Pt. Date of Birth ___ ___ / ___ ___ / ___ ___
Hospital _____ ( ___ ___ - ___ ___ )
Date of Exam ___ ___ / ___ ___ / ___ ___

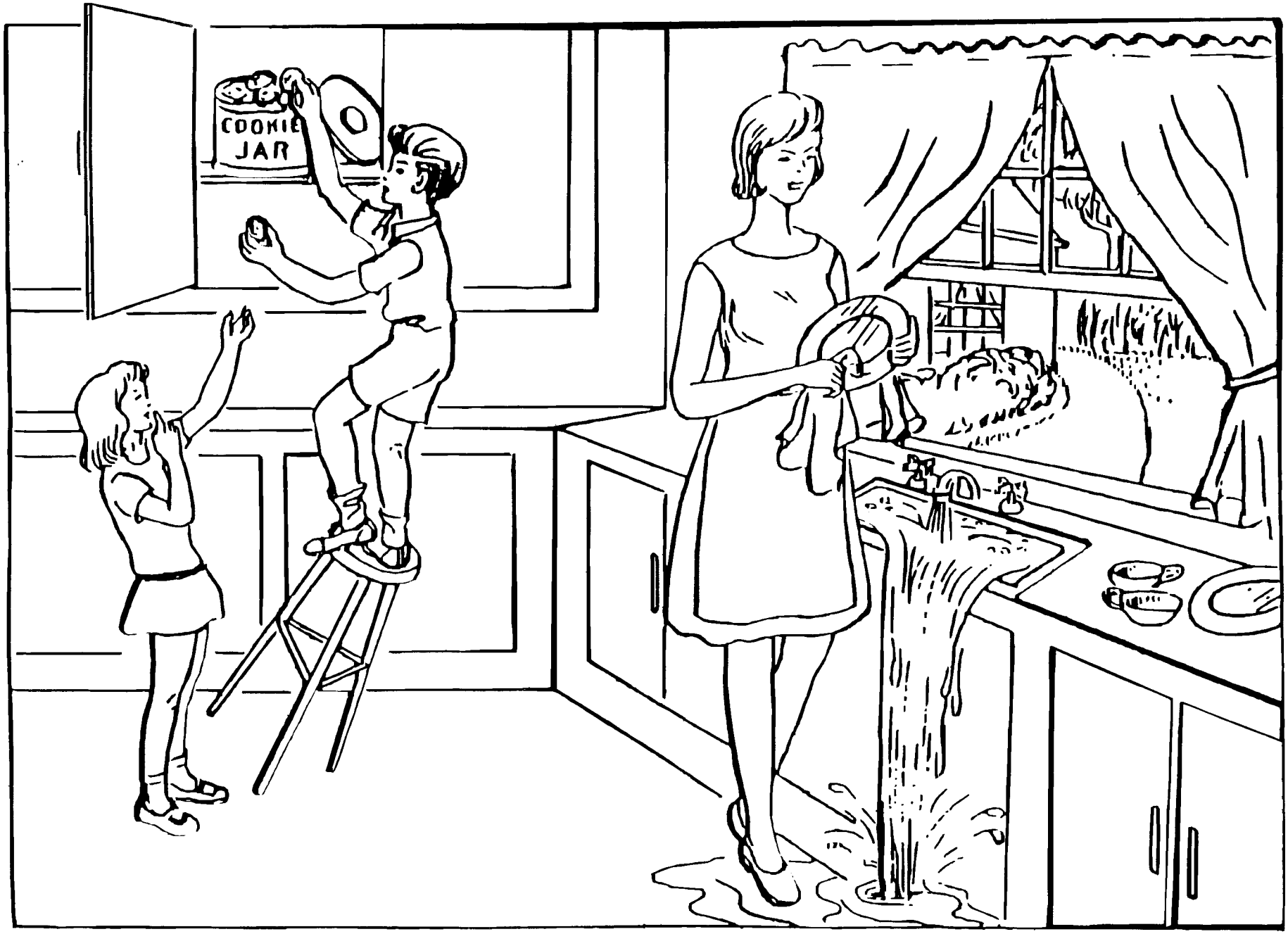
Interval: 1 ☐ Baseline 2 ☐ 2 hours post treatment 3 ☐ 24 hours post onset of symptoms 6 minutes
4 ☐ 7–10 days 5 ☐ 3 months 6 ☐ Other _____ ( ___ _____ )

| Instructions | Scale Definition | Score |
|---|---|---|
| **10. Dysarthria:** If patient is thought to be normal, an adequate sample of speech must be obtained by asking patient to read or repeat words from the attached list. If the patient has severe aphasia, the clarity of articulation of spontaneous speech can be rated. Only if the patient is intubated or has other physical barrier to producing speech may the item be scored "9," and the examiner must clearly write an explanation for not scoring. Do not tell the patient why he/she is being tested. | 0 = Normal<br>1 = Mild to moderate; patient slurs at least some words and, at worst, can be understood with some difficulty.<br>2 = Severe; patient's speech is so slurred as to be unintelligible in the absence of or out of proportion to any dysphasia, or is mute/anarthric.<br>9 = Intubated or other physical barrier, explain<br>_____ | _____ |
| **11. Extinction and Inattention (formerly Neglect):** Sufficient information to identify neglect may be obtained during the prior testing. If the patient has a severe visual loss preventing visual double simultaneous stimulation, and the cutaneous stimuli are normal, the score is normal. If the patient has aphasia but does appear to attend to both sides, the score is normal. The presence of visual spatial neglect or anosagnosia may also be taken as evidence of abnormality. Since the abnormality is scored only if present, the item is never untestable. | 0 = No abnormality.<br>1 = Visual, tactile, auditory, spatial, or personal inattention or extinction to bilateral simultaneous stimulation in one of the sensory modalities.<br>2 = Profound hemi-inattention or hemi-inattention to more than one modality. Does not recognize own hand or orients to only one side of space. | _____ |

Additional item, not a part of the NIH Stroke Scale score.

| | | |
|---|---|---|
| **A. Distal Motor Function:** The patient's hand is held up at the forearm by the examiner and patient is asked to extend his/her fingers as much as possible. If the patient can't or doesn't extend the fingers, the examiner places the fingers in full extension and observes for any flexion movement for 5 seconds. Only the patient's first attempts are graded. Repetition of the instructions or of the testing is prohibited. | 0 = Normal (No flexion after 5 seconds)<br>1 = At least some extension after 5 seconds, but not fully extended. Any movement of the fingers which is not upon command is not scored.<br>2 = No voluntary extension after 5 seconds. Movements of the fingers at another time are not scored. | |
| | **a. Left Arm** | _____ |
| | **b. Right Arm** | _____ |

12. _____ (___ ___ ___)
Person Administering Scale Code


COOKIE
JAR

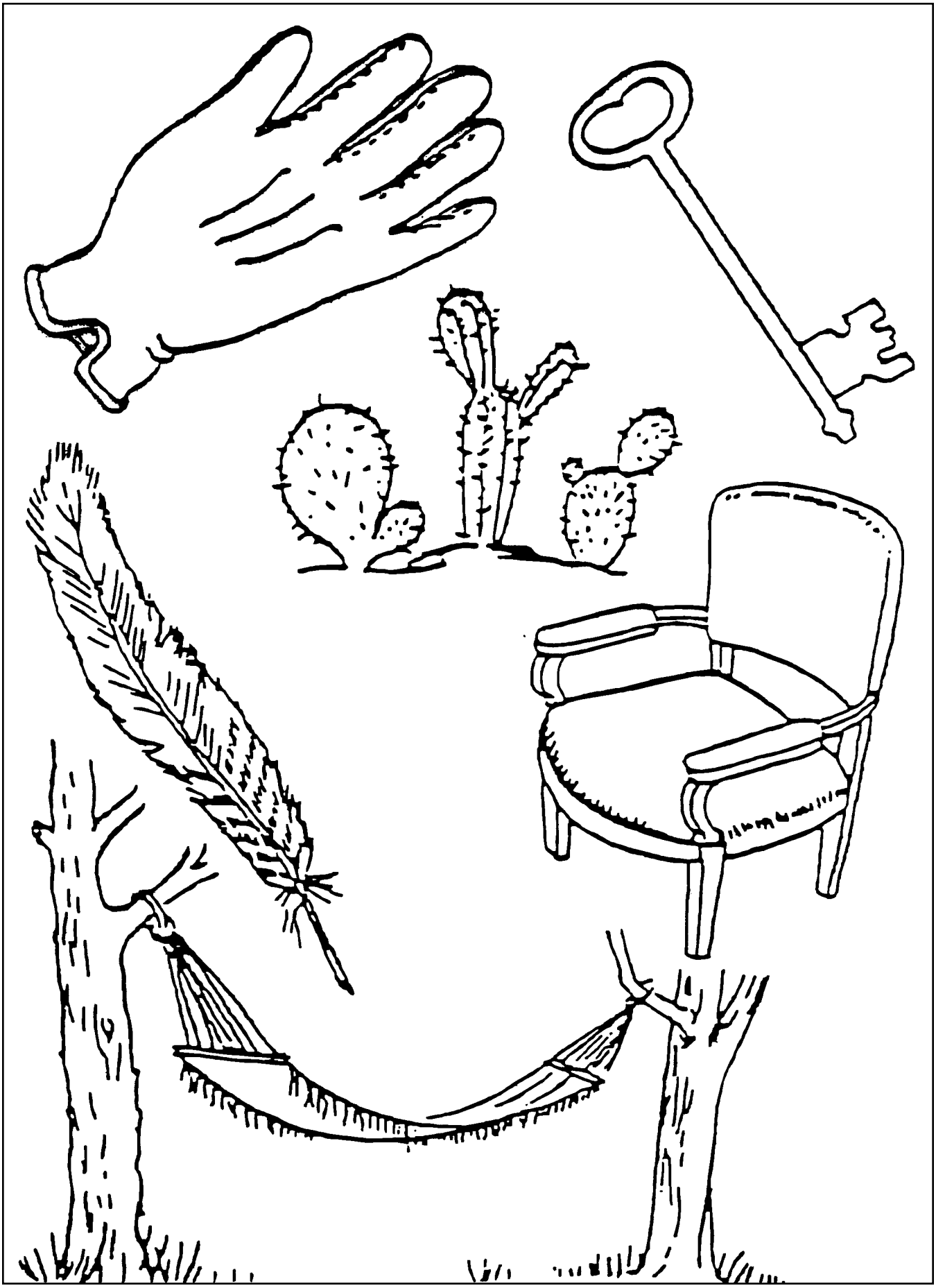
**You know how.**

**Down to earth.**

**I got home from work.**

**Near the table in the dining room.**

**They heard him speak on the radio last night.**



MAMA

TIP-TOP

FIFTY-FIFTY

THANKS

HUCKLEBERRY

BASEBALL PLAYER

# Barthel Index

**(Full credit is not given for an activity if the patient needs even minimal help/supervision.)**
**A score of 0 is given when patient cannot meet criteria as defined.**

1. Feeding

   10 ☐ Independent; feeds self from tray or table; can put on assistive device if needed; accomplishes feeding in reasonable time.
   5 ☐ Assistance necessary with cutting food, etc.
   0 ☐ Cannot meet criteria

2. Moving (from wheelchair to bed and return)

   15 ☐ Independent in all phases of this activity.
   10 ☐ Minimal help needed or patient needs to be reminded or supervised for safety of 1 or more parts of this activity.
   5 ☐ Patient can come to sitting position without help of second person but needs to be lifted out of bed and assisted with transfers.
   0 ☐ Cannot meet criteria

3. Personal Toilet

   5 ☐ Can wash hands, face; combs hair, cleans teeth. Can shave (males) or apply makeup (females) without assistance; females need not braid or style hair.
   0 ☐ Cannot meet criteria

4. Getting On and Off Toilet

   10 ☐ Able to get on and off toilet, fastens/unfastens clothes, can use toilet paper without assistance. May use wall bar or other support if needed; if bedpan necessary patient can place it on chair, empty, and clean it.
   5 ☐ Needs help because of imbalance or other problems with clothes or toilet paper.
   0 ☐ Cannot meet criteria.

5. Bathing Self

   5 ☐ May use bath tub, shower or sponge bath. Patient must be able to perform all functions without another person being present.
   0 ☐ Cannot meet criteria.

6. Walking on Level Surface

   15 ☐ Patient can walk at least 50 yards without assistance or supervision; may use braces, protheses, crutches, canes, or walkerette but not a rolling walker. Must be able to lock/unlock braces, assume standing or seated position, get mechanical aids into position for use and dispose of them when seated (putting on and off braces should be scored under dressing).
   10 ☐ Assistance needed to perform above activities, but can walk 50 yards with little help.
   0 ☐ Cannot meet criteria.

7. Propelling a Wheelchair

   **Do not score this item if patient gets score for walking.**

   5 ☐ Patient cannot ambulate but can propel wheelchair independently; can go around corners, turn around, maneuver chair to table, bed, toilet, etc. Must be able to push chair 50 yards.
   0 ☐ Cannot meet criteria.

# Barthel Index (Continued)

8. Ascending and Descending Stairs

   10 ☐ Able to go up and down flight of stairs safely without supervision using canes, handrails, or crutches when needed and can carry these items as ascending/descending.
   5 ☐ Needs help with or supervision of any of the above items.
   0 ☐ Cannot meet criteria

9. Dressing/Undressing

   10 ☐ Able to put on, fasten and remove all clothing; ties shoelaces unless necessary adaptions used. Activity includes fastening braces and corsets when prescribed; suspenders, loafer shoes and dresses opening in the front may be used when necessary.
   5 ☐ Needs help putting on, fastening, or removing clothing; must accomplish at least half of task alone within reasonable time; women need not be scored on use of brassiere or girdle unless prescribed.
   0 ☐ Cannot meet criteria.

10. Continence of Bowels

   10 ☐ Able to control bowels and have no accidents. Can use a suppository or take an enema when necessary (as for spinal cord injury patients who have had bowel training).
   5 ☐ Needs help in using a suppository or taking an enema or has occasional accidents.
   0 ☐ Cannot meet criteria.

11. Controlling Bladder

   10 ☐ Able to control bladder day and night. Spinal injury patients must be able to put on external devices and leg bags independently, clean and empty bag, and must stay dry day and night.
   5 ☐ Occasional accidents occur, cannot wait for bed pan, does not get to toilet in time or needs help with external device.
   0 ☐ Cannot meet criteria.

# Modified Rankin Scale

0 ☐ No symptoms at all.

1 ☐ No significant disability despite symptoms; able to carry out all usual duties and activities.

2 ☐ Slight disability; unable to carry out all previous activities but able to look after own affairs without assistance.

3 ☐ Moderate disability requiring some help, but able to walk without assistance.

4 ☐ Moderate severe disability; unable to walk without assistance and unable to attend to own bodily needs without assistance.

5 ☐ Severe disability; bedridden, incontinent, and requiring constant nursing care and attention.

# Glasgow Outcome Scale (GOS)

1 ☐ Good recovery — patient can lead a full and independent life with or without minimal neurological deficit.

2 ☐ Moderately disabled; patient has neurological or intellectual impairment but is independent.

3 ☐ Severely disabled. Patient conscious but totally dependent on others to get through daily activities.

4 ☐ Vegetative survival.

5 ☐ Dead.

# Hunt and Hess Classification of Subarachnoid Hemorrhage

***Classification Symptoms***

| | |
|---|---|
| Grade I | Asymptomatic of minimal headache and slight nuchal rigidity. |
| Grade II | Moderate to severe headache, nuchal rigidity, no neurological deficit other than cranial nerve palsy. |
| Grade III | Drowsiness, confusion, or mild focal deficit. |
| Grade IV | Stupor, moderate to severe hemiparesis, possible early decerebrate ridigity and vegetative disturbance. |
| Grade V | Deep coma, decerebrate ridigity, moribund appearance. |

# The University of Cincinnati
# Patient Care Services
# Dysphagia Screen

UMC-6, REV 3/98

- Please elevate patient to at least a 45–50 degree angle prior to dysphagia screen to allow the patient to achieve the best screen possible.
- Please circle the appropriate item.

**Present Feeding Status:** NG NI PEG NPO

**Patient receiving tube feedings prior to dysphagia screen?** yes no

**Current Tube Feeding:** _____

**Date started:** _____ **Time started:** _____

| | | | |
|---|---|---|---|
| **Hx. of Aspiration:** | No | Yes | Unknown |
| **Controls Secretions:** | Normal | Drools/Coughs | Requires suctioning |
| **Consciousness:** | Alert | Lethargic | Obtunded |
| **Voice Quality:** | Normal | Impaired | Wet/gurgle * |
| **Follows Commands:** | Consistent | Impaired | Impaired/poor attention * |
| **Spontaneous Cough:** | Strong | Weak | Absent |
| **Facial Weakness:** | Normal | Flattened nasolabial fold | Unilateral weakness (air escapes from closed lips) |
| **Facial Sensation:** | Normal | $V_1$, $V_2$, $V_3$ | Unilateral facial analgesia sensory loss |
| **Soft Palate Elevation:** | Symmetrical | Asymmetrical | No elevation, unable to test * |
| **Tongue Strength:** | Moves tongue circumorally | Tongue deviates to one side | No movement * |
| **Lip Closure:** | Normal | Weak | Not achieved |
| **Swallow:** | Within 2 sec. | Delayed | No swallow * |
| **Speech Therapy Consult:** | Not required | Consult required | |

* Categories: Speech Therapy should be consulted for formal swallowing evaluation

Nurse/Respiratory Therapist completing dysphagia screen: _____

Date: _____ Time: _____

Speech Pathologist if consult required: =_____ Date: _____ Time: _____