# Functional Status

## Get Up and Go Test (GUG)

GUG Instructions:
Ask the patient to perform the following series of maneuvers:

1. Sit comfortably in a straight-backed chair.
2. Rise from the chair.
3. Stand still momentarily.
4. Walk a short distance (approximately 3 meters).
5. Turn around.
6. Walk back to the chair.
7. Turn around.
8. Sit down in the chair.

Scoring:
Observe the patient's movements for any deviation from a confident, normal performance. Use the following scale:

1 = Normal
2 = Very slightly abnormal
3 = Mildly abnormal
4 = Moderately abnormal
5 = Severely abnormal

"Normal" indicates that the patient gave no evidence of being at risk of falling during the test or at any other time. "Severely abnormal" indicates that the patient appeared at risk of falling during the test. Intermediate grades reflect the presence of any of the following as indicators of the possibility of falling: undue slowness, hesitancy, abnormal movements of the trunk or upper limbs, staggering, stumbling.

A patient with a score of 3 or more on the Get-up and Go Test is at risk of falling.

Source:
Mathias S, Nayak USL, Isaacs B. Balance in elderly patients: the “get-up and go” test. Arch Phys Med Rehabil. 1986;67:387-389.

## Timed Up and Go (TUG)

**The TUG is built off the GUG.**

1. Equipment: arm chair, tape measure, tape, stop watch.
2. Begin the test with the subject sitting correctly (hips all of the way to the back of the seat) in a chair with arm rests. The chair should be stable and positioned such that it will not move when the subject moves from sit to stand. The subject is allowed to use the arm rests during the sit – stand and stand – sit movements.
3. Place a piece of tape or other marker on the floor 3 meters away from the chair so that it is easily seen by the subject.

Instructions: *"On the word GO you will stand up, walk to the line on the floor, turn around and walk back to the chair and sit down. Walk at your regular pace."*

1. Start timing on the word "GO" and stop timing when the subject is seated again correctly in the chair with their back resting on the back of the chair.
2. The subject wears their regular footwear, may use any gait aid that they normally use during ambulation, but may not be assisted by another person. There is no time limit. They may stop and rest (but not sit down) if they need to.
3. Normal healthy elderly usually complete the task in ten seconds or less. Very frail or weak elderly with poor mobility may take 2 minutes or more.
4. The subject should be given a practice trial that is not timed before testing.
5. Results correlate with gait speed, balance, functional level, the ability to go out, and can follow change over time.

**Normative Reference Values by Age**

| Age Group | Time in Seconds | (95% Confidence Interval) |
|---|---|---|
| 60 – 69 years | 8.1 | (7.1 – 9.0) |
| 70 – 79 years | 9.2 | (8.2 – 10.2) |
| 80 – 99 years | 11.3 | (10.0 – 12.7) |

**Cut-off Values Predictive of Falls by**

| Group | Time in Seconds |
|---|---|
| Community Dwelling Frail Older Adults | > 14 associated with high fall risk |
| Post-op hip fracture patients at time of discharge | > 24 predictive of falls within 6 months after hip fracture |
| Frail older adults | > 30 predictive of requiring assistive device for ambulation and being dependent in ADLs |

References

1. Bohannon RW. Reference values for the Timed Up and Go Test: A Descriptive Meta-Analysis. Journal of Geriatric Physical Therapy, 2006;29(2):64-8.
2. Shumway-Cook A, Brauer S, Woollacott M. Predicting the probability for falls in community-dwelling older adults using the timed up & go test. Phys Ther. 2000;80:896-903.
3. Kristensen MT, Foss NB, Kehlet H. Timed "Up and Go" Test as a predictor of falls within 6 months after hip fracture surgery. Phys Ther. 2007.87(1):24-30.

Additional References

Bischoff HA, Stahelin HB, et al. Identifying a cut-off point for normal mobility: A comparison study of the timed "up and go" test in community-dwelling and institutionalized elderly women. Age and Ageing. 2003;32:315-320.

Boulgarides LK, McGinty SM, et al. Use of clinical and impairment-based tests to predict falls by community-dwelling older adults. Phys Ther. 2003;83:328-339.

Podsiadlo D, Richardson S. The timed "up & go": A test of basic functional mobility for frail elderly persons. JAGS. 1991;39:142-148.

## Katz Index of Independence in Activities of Daily Living (BADL)

TRY THIS SERIES By: Meredith Wallace, PhD, APRN, BC, Fairfield University School of Nursing, and Mary Shelkey, PhD, ARNP, Virginia Mason Medical Center
Issue Number 2, Revised 2007; Series Editor: Marie Boltz, PhD, APRN, BC, GNP; Managing Editor: Sherry A. Greenberg, MSN, APRN, BC, GNP New York University College of Nursing

**WHY:** Normal aging changes and health problems frequently show themselves as declines in the functional status of older adults. Decline may place the older adult on a spiral of iatrogenesis leading to further health problems. One of the best ways to evaluate the health status of older adults is through functional assessment which provides objective data that may indicate future decline or improvement in health status, allowing the nurse to intervene appropriately.

**BEST TOOL:** The Katz Index of Independence in Activities of Daily Living, commonly referred to as the Katz ADL, is the most appropriate instrument to assess functional status as a measurement of the client's ability to perform activities of daily living independently. Clinicians typically use the tool to detect problems in performing activities of daily living and to plan care accordingly. The Index ranks adequacy of performance in the six functions of *bathing, dressing, toileting, transferring, continence, and feeding.* Clients are scored yes/no for independence in each of the six functions. A score of 6 indicates full function, 4 indicates moderate impairment, and 2 or less indicates severe functional impairment.

**TARGET POPULATION:** The instrument is most effectively used among older adults in a variety of care settings, when baseline measurements, taken when the client is well, are compared to periodic or subsequent measures.

**VALIDITY AND RELIABILITY:** In the thirty-five years since the instrument has been developed, it has been modified and simplified and different approaches to scoring have been used. However, it has consistently demonstrated its utility in evaluating functional status in the elderly population. Although no formal reliability and validity reports could be found in the literature, the tool is used extensively as a flag signaling functional capabilities of older adults in clinical and home environments.

**STRENGTHS AND LIMITATIONS:** The Katz ADL Index assesses basic activities of daily living. It does not assess more advanced activities of daily living. Katz developed another scale for instrumental activities of daily living such as heavy housework, shopping, managing finances and telephoning. Although the Katz ADL Index is sensitive to changes in declining health status, it is limited in its ability to measure small increments of change seen in the rehabilitation of older adults. A full comprehensive geriatric assessment should follow when appropriate. The Katz ADL Index is very useful in creating a common language about patient function for all practitioners involved in overall care planning and discharge planning.

**MORE ON THE TOPIC:**

Best practice information on care of older adults: www.ConsultGeriRN.org.

Graf, C. (2006). Functional decline in hospitalized older adults. *AJN, 106*(1), 58-67.

Katz, S., Down, T.D., Cash, H.R., & Grotz, R.C. (1970) Progress in the development of the index of ADL. *The Gerontologist, 10*(1), 20-30.

Katz, S. (1983). Assessing self-maintenance: Activities of daily living, mobility and instrumental activities of daily living. *JAGS, 31*(12), 721-726.

Kresevic, D.M., & Mezey, M. (2003). Assessment of function. In M. Mezey, T. Fulmer, I. Abraham (Eds.), D. Zwicker (Managing Ed.), *Geriatric nursing protocols for best practice* (2nd ed., pp 31-46). NY: Springer Publishing Co., Inc.

Mick, D.J., & Ackerman, M.H. (2004, Sept). Critical care nursing for older adults: Pathophysiological and functional considerations. *Nursing Clinics of North America, 39*(3), 473-93.

# Katz Index of Independence in Activities of Daily Living

| ACTIVITIES<br>POINTS (1 OR 0) | INDEPENDENCE:<br>(1 POINT)<br>**NO** supervision, direction or personal assistance | DEPENDENCE:<br>(0 POINTS)<br>**WITH** supervision, direction, personal assistance or total care |
|---|---|---|
| **BATHING**<br>POINTS:_____ | **(1 POINT)** Bathes self completely or needs help in bathing only a single part of the body such as the back, genital area or disabled extremity. | **(0 POINTS)** Needs help with bathing more than one part of the body, getting in or out of the tub or shower. Requires total bathing. |
| **DRESSING**<br>POINTS:_____ | **(1 POINT)** Gets clothes from closets and drawers and puts on clothes and outer garments complete with fasteners. May have help tying shoes. | **(0 POINTS)** Needs help with dressing self or needs to be completely dressed. |
| **TOILETING**<br>POINTS:_____ | **(1 POINT)** Goes to toilet, gets on and off, arranges clothes, cleans genital area without help. | **(0 POINTS)** Needs help transferring to the toilet, cleaning self or uses bedpan or commode. |
| **TRANSFERRING**<br>POINTS:_____ | **(1 POINT)** Moves in and out of bed or chair unassisted. Mechanical transferring aides are acceptable. | **(0 POINTS)** Needs help in moving from bed to chair or requires a complete transfer. |
| **CONTINENCE**<br>POINTS:_____ | **(1 POINT)** Exercises complete self control over urination and defecation. | **(0 POINTS)** Is partially or totally incontinent of bowel or bladder. |
| **FEEDING**<br>POINTS:_____ | **(1 POINT)** Gets food from plate into mouth without help. Preparation of food may be done by another person. | **(0 POINTS)** Needs partial or total help with feeding or requires parenteral feeding. |

**TOTAL POINTS** = _____ 6 = High (*patient independent*) 0 = Low (*patient very dependent*)

Slightly adapted from Katz, S., Down, T.D., Cash, H.R., & Grotz, R.C. (1970) Progress in the development of the index of ADL. *The Gerontologist,* 10(1), 20-30.


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## **Instrumental Activities of Daily Living (IADL)** (Lawton & Brody, 1969)

TRY THIS: The Lawton Instrumental Activities of Daily Living (IADL) Scale

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Issue Number 23, Revised 2013

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WHY: The assessment of functional status is critical when caring for older adults. Normal aging changes, acute illness, worsening chronic illness, and hospitalization can contribute to a decline in the ability to perform tasks necessary to live independently in the community. The information from a functional assessment can provide objective data to assist with targeting individualized rehabilitation needs or to plan for specific in home services such as meal preparation, nursing and personal care, home-maker services, financial and medication management, and/or continuous supervision. A functional assessment can also guide the clinician to focus on the person's baseline capabilities, facilitating early recognition of changes that may signify a need either for additional resources or for a medical work-up (Gallo & Paveza, 2006).

BEST TOOL: The Lawton Instrumental Activities of Daily Living Scale (IADL) is an appropriate instrument to assess independent living skills (Lawton & Brody, 1969). These skills are considered more complex than the basic activities of daily living as measured by the Katz Index of ADLs (See Try this: Katz Index of ADLs). The instrument is most useful for identifying how a person is functioning at the present time and for identifying improvement or deterioration over time. There are 8 domains of function measured with the Lawton IADL scale. Historically, women were scored on all 8 areas of function; men were not scored in the domains of food preparation, housekeeping, laundering. However, current recommendations are to assess all domains for both genders (Lawton, Moss, Fulcomer, & Kleban, 2003). Persons are scored according to their highest level of functioning in that category. A summary score ranges from 0 (low function, dependent) to 8 (high function, independent).

TARGET POPULATION: This instrument is intended to be used among older adults, and may be used in community, clinic, or hospital settings. The instrument is not useful for institutionalized older adults. It may be used as a baseline assessment tool and to compare baseline function to periodic assessments.

VALIDITY AND RELIABILITY: Few studies have been performed to test the Lawton IADL scale psychometric properties. The Lawton IADL Scale was originally tested concurrently with the Physical Self-Maintenance Scale (PSMS). Reliability was established with twelve subjects interviewed by one interviewer with the second rater present but not participating in the interview process. Inter-rater reliability was established at 0.85. The validity of the Lawton IADL was tested by determining the correlation of the Lawton IADL with four scales that measured domains of functional status, the Physical Classification (6-point rating of physical health), Mental Status Questionnaire (10-point test of orientation and memory), Behavior and Adjustment rating scales (4-6-point measure of intellectual, person, behavioral and social adjustment), and the PSMS (6-item ADLs). A total of 180 research subjects participated in the study, however, few received all five evaluations. All correlations were significant at the 0.01 or 0.05 level. To avoid potential gender bias at the time the instrument was developed, specific items were omitted for men. This assessment instrument is widely used both in research and clinical practice.

STRENGTHS AND LIMITATIONS: The Lawton IADL is an easy to administer assessment instrument that provides self-reported information about functional skills necessary to live in the community. Administration time is 10-15 minutes. Specific deficits identified can assist nurses and other disciplines in planning for safe hospital discharge. A limitation of the instrument includes the self-report or surrogate report method of administration rather than a demonstration of the functional task. This may lead either to

over-estimation or under-estimation of ability. In addition, the instrument may not be sensitive to small, incremental changes in function.

FOLLOW-UP: The identification of new disabilities in these functional domains warrants intervention and further assessment to prevent ongoing decline and to promote safe living conditions for older adults. If using the Lawton IADL tool with an acute hospitalization, nurses should communicate any deficits to the physicians and social workers/case managers for appropriate discharge planning.

MORE ON THE TOPIC:

Best practice information on care of older adults: www.ConsultGeriRN.org.

Gallo, J.J., & Paveza, G.J. (2006). Activities of daily living and instrumental activities of daily living assessment. In J.J. Gallo, H.R. Bogner, T. Fulmer, & G.J. Paveza (Eds.), Handbook of Geriatric Assessment (4th ed., pp. 193-240). MA: Jones and Bartlett Publishers.

Graf, C. (2006). Functional decline in hospitalized older adults. AJN, 106(1), 58-67.

Graf, C. (2008). The Lawton Instrumental Activities of Daily Living Scale. AJN, 108(4), 52-62.

Lawton, M.P., & Brody, E.M. (1969). Assessment of older people: Self-maintaining and instrumental activities of daily living. The Gerontologist, 9(3), 179-186.

Lawton, M.P., Moss, M., Fulcomer, M., & Kleban, M. H. (2003). Multi-level assessment instrument manual for full-length MAI. North Wales PA: Polisher Research Institute, Madlyn and Leonard Abramson Center for Jewish Life.

Pearson, V. (2000). Assessment of function. In R. Kane, & R. Kane (Eds.), Assessing Older Persons. Measures, Meaning and Practical Applications (pp. 17-48). New York: Oxford University Press.

# Instrumental Activities of Daily Living (IADL)

*Instructions:* Circle the scoring point for the statement that most closely corresponds to the patient's current functional ability for each task. The examiner should complete the scale based on information about the patient from the patient him-/herself, informants (such as the patient's family member or other caregiver), and recent records.

| **A. Ability to use telephone** | **Score** | **E. Laundry** | **Score** |
|---|---|---|---|
| 1. Operates telephone on own initiative; looks up and dials numbers, etc. | 1 | 1. Does personal laundry completely | 1 |
| | | 2. Launders small items; rinses stockings, etc. | 1 |
| 2. Dials a few well-known numbers | 1 | 3. All laundry must be done by others | 0 |
| 3. Answers telephone but does not dial | 1 | | |
| 4. Does not use telephone at all | 0 | | |
| **B. Shopping** | | **F. Mode of transportation** | |
| 1. Takes care of all shopping needs independently | 1 | 1. Travels independently on public transportation or drives own car | 1 |
| 2. Shops independently for small purchases | 0 | 2. Arranges own travel via taxi, but does not otherwise use public transportation | 1 |
| 3. Needs to be accompanied on any shopping trip | 0 | 3. Travels on public transportation when assisted or accompanied by another | 1 |
| 4. Completely unable to shop | 0 | 4. Travel limited to taxi or automobile with assistance of another | 0 |
| | | 5. Does not travel at all | 0 |
| **C. Food preparation** | | **G. Responsibility for own medications** | |
| 1. Plans, prepares, and serves adequate meals independently | 1 | 1. Is responsible for taking medication in correct dosages at correct time | 1 |
| 2. Prepares adequate meals if supplied with ingredients | 0 | 2. Takes responsibility if medication is prepared in advance in separate dosages | 0 |
| 3. Heats and serves prepared meals, or prepares meals but does not maintain adequate diet | 0 | 3. Is not capable of dispensing own medication | 0 |
| 4. Needs to have meals prepared and served | 0 | | |
| **D. Housekeeping** | | **H. Ability to handle finances** | |
| 1. Maintains house alone or with occasional assistance (e.g., "heavy work domestic help") | 1 | 1. Manages financial matters independently (budgets, writes checks, pays rent and bills, goes to bank), collects and keeps track of income | 1 |
| 2. Performs light daily tasks such as dish washing, bed making | 1 | 2. Manages day-to-day purchases, but needs help with banking, major purchases, etc. | 1 |
| 3. Performs light daily tasks but cannot maintain acceptable level of cleanliness | 1 | 3. Incapable of handling money | 0 |
| 4. Needs help with all home maintenance tasks | 1 | | |
| 5. Does not participate in any housekeeping tasks | 0 | | |

***Scoring:*** The patient receives a score of 1 for each item labeled A – H if his or her competence is rated at some minimal level or higher. Add the total points circled for A – H. The total score may range from 0 – 8. A lower score indicates a higher level of dependence. (Lawton & Brody, 1969)