Frailty Assessment Definition Sheet - Physical Frailty Phenotype
Frailty Assessment Definition Sheet - SOF Index
Frailty Assessment Definition Sheet - WHI-OS frailty measure
Frailty Assessment Definition Sheet - Deficit Accumulation Index
Frailty Assessment Definition Sheet - Edmonton Frail Scale
Frailty Assessment Definition Sheet - SPPB as a frailty measure
Frailty Assessment Definition Sheet - FRAIL Scale
Frailty Assessment Definition Sheet - Clinical Frailty Scale
Frailty Assessment Definition Sheet - Gerontopole Frailty Screening Tool
Physical Frailty Phenotype

Scoring: ≥3/5 criteria met indicates frailty; 1-2/5 indicates pre-or-intermediate frailty; 0/5 indicates non-frail.

<table>
<thead>
<tr>
<th>Frailty Criterion</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unintentional Weight loss</td>
<td>Meets criteria for weight loss if: Lost &gt;5% body weight unintentionally in last year, or BMI &lt;18.5kg/m² Equipment: scale for body weight; stadiometer for height.</td>
</tr>
<tr>
<td>Exhaustion</td>
<td>Meets criteria for exhaustion if answer: Felt unusually tired or unusually weak ‘all of the time’ or ‘most of the time’ or reported energy level was ≤3, using the following questions. 1.a. “In the past month, on the average, have you been feeling unusually tired during the day?” Yes □ No □ Refused □ Don’t Know □ 1.b. “If yes, have you been feeling unusually tired:” □ All of the time □ Most of the time □ Some of the time □ Refused / Don’t Know 2.a. “In the past month, on the average, have you felt unusually weak?” Yes □ No □ Refused □ Don’t Know □ 2.b. ” If yes, have you been feeling weak:” □ All of the time □ Most of the time □ Some of the time □ Refused / Don’t Know 3. “Using the scale below, please rate your usual energy level on a scale from 0 to 10 where 0 is no energy and 10 is the most energy that you have ever had. Please give a number between 0 and 10 that describes your usual energy level while awake in the last month?” Energy Level: ____</td>
</tr>
<tr>
<td>Slowness</td>
<td>Meets criteria for slow walking speed over 4 meters if: Men ≤0.65m/s for height ≤173 cm (68 inches) ≤0.76m/s for height &gt;173 cm (68 inches) Women ≤0.65m/s for height ≤159cm (63 inches) ≤0.76m/s for height &gt;159cm (63 inches) Equipment: 4-meter course, a stopwatch. Participant attempts to walk 4-meter length twice at his or her usual pace. Use average of 2 trials.</td>
</tr>
<tr>
<td>Low Activity Level</td>
<td>Meets criteria for low activity if: Men: &lt;128 kcal of physical expenditure on activity scale per week (6 items¹) Women: &lt;90 kcal of physical expenditure on activity scale per week (6 items¹)</td>
</tr>
<tr>
<td>Weakness</td>
<td>Meets criteria for grip strength weakness if: Men ≤29 kg for BMI ≤24 ≤30 kg for BMI 24.1–26 ≤30 kg for BMI 26.1–28 ≤32 kg for BMI &gt;28 Women ≤17 kg for BMI ≤23 ≤17.3 kg for BMI 23.1–26 ≤18 kg for BMI 26.1–29 ≤21 kg for BMI &gt;29 Equipment: (Jamar) hand dynamometer. Participant attempts to squeeze the dynamometer maximally 3 times with the dominant hand. Use maximal score with dominant hand.</td>
</tr>
</tbody>
</table>

¹ Physical activity is based on modified Minnesota Leisure Time Activities Questionnaire, asking about walking (w = 3.5), strenuous household chores (w = 4.5), strenuous outdoor chores (w = 4.5), dancing (w = 5.5), bowling (w = 3.0), and exercise (w = 4.5). To compute kcals expended per week, use the formula: Kcals (Kilocalories / week) = w * Frequency (sessions per week) * Duration per session (minutes) * Body Weight (kg)/60, where w is the task-specific MET intensity score.

References:


**Study of Osteoporotic Fractures (SOF) Index**

**Scoring:** ≥2/3 criteria met indicates frailty; 1/3 indicates pre-or-intermediate frailty; 0/3 indicates non-frail.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Weight loss</td>
<td>Meets criteria for weight loss if: Lost &gt;5% body weight in last 2-3 years, irrespective of intent to lose weight. Equipment: scale for body weight; stadiometer for height.</td>
</tr>
<tr>
<td>Chairs stands</td>
<td>Meets criteria for inability to rise from a chair 5 times if: Not able to rise from a chair 5 times without using arms.</td>
</tr>
<tr>
<td>Reduce energy level</td>
<td>Meets criteria for reduced energy level if: Replies ‘No’ to the question, “Do you feel full of energy?”¹</td>
</tr>
</tbody>
</table>

¹ Question from the Geriatric Depression Scale (Shiekh & Yesavage, 1986)

**References:**


Women's Health Initiative Observational Study (WHI-OS) frailty measure

Scoring: ≥3/5 criteria met indicates frailty; 1-2/5 indicates pre-or-intermediate frailty; 0/5 indicates non-frail.

<table>
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<tr>
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</table>
| Slowness / weakness             | **Meets criteria for slowness / weakness if:**  
  Score of <75 out of 100 on the Rand-36 Physical Function Scale\(^1\):  
  Includes 10 items measuring whether health limits physical function.  
  Note: this is scored as 2 criteria.                                    |
| Poor endurance / exhaustion     | **Meets criteria for poor endurance / exhaustion if:**  
  Score of <55 out of 100 on the Rand-36 Vitality Scale\(^2\), using the following questions:  
  Over past 4 weeks:  
  - Did you feel worn out?  
  - Did you feel tired?  
  - Did you have a lot of energy  
  - Did you feel full of pep? |
| Physical activity               | **Detailed physical activity questionnaire:**  
  Assess frequency and duration of walking and mild, moderate, and strenuous activities.  
  Kcal of weekly energy expenditure calculated (metabolic equivalent task hours score = kcal/wk x kg), and those in lowest quartile score as meeting criteria for this component. |
| Unintentional weight loss       | **Meets criteria for weight loss if:**  
  Lost >5% body weight in last 2 years, and reported “Yes” to the question, “In the past two years, did you lose five or more pounds not on purpose at any time?”  
  Equipment: scale for body weight; stadiometer for height. |

2. See energy / fatigue in Table 2: [https://www.rand.org/health-care/surveys_tools/mos/36-item-short-form/scoring.html](https://www.rand.org/health-care/surveys_tools/mos/36-item-short-form/scoring.html)

References:

Deficit Accumulation Index

_deficit accumulation index_ may vary in the type and number of deficits included. The following definition sheet is based on guidance from Searle et al., 2008, “A standard procedure for creating a frailty index.”

Scoring: A frailty index score of 0.2 or greater recognizes a person as approaching a frail state.

<table>
<thead>
<tr>
<th>Deficit Criterion</th>
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<tbody>
<tr>
<td>Deficits in health</td>
<td>At least 30-40 deficits – defined as symptoms, signs, disabilities, and diseases – should be selected.</td>
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<td>Deficits can be included if:</td>
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<td></td>
<td>1) they are associated with health status</td>
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<td>2) the prevalence of the deficit increases with age</td>
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<td>3) saturation of the deficit does not occur too early in the life course</td>
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<td>4) the deficits cover a range of symptoms (for example, deficits are not solely related to cognition)</td>
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<td></td>
<td>5) the same deficits are included when used serially on the same people</td>
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<td></td>
<td>Deficit variables are scored as binary (0 or 1) or can be graded (e.g., 0, 0.5, 1).</td>
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<tr>
<td></td>
<td>The score is expressed as the ratio of deficits present over the total number of deficits included. For example, if the person has 10 deficits present out of 40 deficits total, the index score would equal 10/40 or 0.25.</td>
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<td></td>
<td>Examples of deficits include:</td>
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<td></td>
<td>• Restricted activity</td>
</tr>
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<td></td>
<td>• Disability in Activities Daily Living (ADL) and Instrumental ADL</td>
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<tr>
<td></td>
<td>• Impairments in general cognition and physical performance (e.g. impaired grip strength</td>
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<td></td>
<td>• Impaired walking)</td>
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<td></td>
<td>• Co-morbidity</td>
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<td></td>
<td>• Self-rated health</td>
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<td></td>
<td>• Depression/mood</td>
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</tbody>
</table>

Please see Table 1 in Searle et al (2008) for a full list of 40 deficits and their proposed scoring: [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2573877/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2573877/)

References:


Edmonton Frail Scale (EFS)

Scoring: The EFS score ranges from zero to 17 points. Severe Frailty is defined as a score of 12-17 possible points; apparent vulnerability is a score of 6-11 points; and non-frail is a score of 5 or less points.

<table>
<thead>
<tr>
<th>Frailty Criterion</th>
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</table>
| Cognition               | Clock Drawing Test: place numbers the correct positions on a pre-drawn circle, and place hands to indicate the time of ‘ten after eleven’  
  • 0 points if no errors  
  • 1 point if minor spacing errors  
  • 2 points if other errors  |
| General Health Status   | “In the past year, how many times have you been admitted to a hospital?”  
  • 0 points if 0  
  • 1 point if 1-2  
  • 2 points if >2  |
| Functional Independence | “With how many of the following activities do you require help? (meal preparation, shopping, transportation, telephone, housekeeping, laundry, managing money, taking medications)”  
  • 0 points if 0-1  
  • 1 point if 2-4  
  • 2 points if 5-8  |
| Social Support          | “When you need help, can you count on someone who is willing and able to meet your needs?”  
  • 0 points if ‘Always’  
  • 1 point if ‘Sometimes’  
  • 2 points if ‘Never’  |
| Medication Use          | “Do you use five or more different prescription medications on a regular basis?”  
  • 0 points if ‘No’  
  • 1 point if ‘Yes’  |
|                         | “At times, do you forget to take your prescription medications?”  
  • 0 points if ‘No’  
  • 1 point if ‘Yes’  |
| Nutrition               | “Have you recently lost weight such that your clothing has become looser?”  
  • 0 points if ‘No’  
  • 1 point if ‘Yes’  |
| Mood                    | “Do you often feel sad or depressed?”  
  • 0 points if ‘No’  
  • 1 point if ‘Yes’  |
| Continence              | “Do you have a problem with losing control of urine when you don’t want to?”  
  • 0 points if ‘No’  
  • 1 point if ‘Yes’  |
| Function Performance    | Timed Up and Go test: “sit in this chair with your back and arms resting. Then, when I say ‘GO’, please stand up and walk at a safe and comfortable pace to the mark on the floor (approximately 3m away), return to the chair and sit down”  
  • 0 points if completed in 0-10 seconds  
  • 1 point if completed in 11-20 seconds  
  • 2 points if completed in >20 seconds, or if the person is not willing or if they require assistance.  |

References:

Short Physical Performance Battery (SPPB) as a frailty measure

Scoring: SPPB scores range from zero to 12 possible points. SPPB score of 3-9 points in persons with possible sarcopenia but no mobility disability indicates frailty; SPPB score of 10 or greater for persons with no sarcopenia and no mobility disability indicates robustness. Persons with a score of 2 or lower who have sarcopenia, potential cachexia, and mobility disability are determined to be disabled.

<table>
<thead>
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| **Usual Gait Speed**   | **Gait Speed Test:** person attempts walk a 4-meter course at their usual speed, just as if walking down the street to go to the store.  
  - 0 points if unable to do the walk  
  - 1 point if time is more than 8.70 sec  
  - 2 points if time is 6.21 to 8.70 sec  
  - 3 points if time is 4.82 to 6.20 sec  
  - 4 points if time is less than 4.82 sec  
  Equipment: walking course; stopwatch. Average of 2 attempts.                                                                                       |
| **Repeated Chair Stands** | **Chair Stand Test:** person attempts to rise from a chair five times without using their arms.  
  - 0 points if unable to complete 5 chair stands or completes stands in >60 seconds  
  - 1 point if chair stand time is 16.70 sec or more  
  - 2 points if chair stand time is 13.70 to 16.69 sec or more  
  - 3 points if chair stand time is 11.20 to 13.69 sec  
  - 4 points if chair stand time is 11.19 sec or less  
  Equipment: chair; stopwatch.                                                                                                                  |
| **Standing Balance**   | Three balance tests are performed and scored as follows:  
  - **Side-by-side stand:** person attempts to stand with feet together, side-by-side, for 10 seconds.  
    - 1 point if held for 10 seconds  
    - 0 points if not held for 10 seconds or not attempted  
  - **Semi-tandem stand:** person attempts to stand with the side of the heel of one foot touching the big toe of the other foot for 10 seconds.  
    - 1 point if held for 10 seconds  
    - 0 points if not held for 10 seconds or not attempted  
  - **Tandem stand:** person attempts to stand with the heel of one foot in front of and touching the toes of the other foot for about 10 seconds.  
    - 2 points if held for 10 seconds  
    - 1 point if held for 3 to 9.99 seconds  
    - 0 points if held for <3 seconds or not attempted  
  Equipment: stopwatch.                                                                                                                        |

References:


FRAIL Scale

**Scoring:** ≥3/5 criteria met indicates frailty; 1-2/5 indicates pre-or-intermediate frailty; 0/5 indicates non-frail.

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<tbody>
<tr>
<td><strong>Fatigue</strong></td>
<td>Fatigue: “How much of the time during the past 4 weeks did you feel tired?”&lt;br&gt;1 = All of the time, 2 = Most of the time, 3 = Some of the time, 4 = A little of the time, 5 = None of the time. Responses of “1” or “2” are scored as 1 and all others as 0.</td>
</tr>
<tr>
<td><strong>Resistance</strong></td>
<td>Resistance: “By yourself and not using aids, do you have any difficulty walking up 10 steps without resting?”&lt;br&gt;1 = Yes, 0 = No</td>
</tr>
<tr>
<td><strong>Ambulation</strong></td>
<td>Ambulation: “By yourself and not using aids, do you have any difficulty walking several hundred yards?”&lt;br&gt;1 = Yes, 0 = No.</td>
</tr>
<tr>
<td><strong>Illnesses</strong></td>
<td>Illnesses: For 11 illnesses¹, participants are asked, “Did a doctor ever tell you that you have [illness]?”&lt;br&gt;1 = Yes, 0 = No.</td>
</tr>
<tr>
<td><strong>Loss of weight</strong></td>
<td>Loss of weight: “How much do you weigh with your clothes on but without shoes? [current weight]”&lt;br&gt;“One year ago in (MO, YR), how much did you weigh without your shoes and with your clothes on? [weight 1 year ago]”&lt;br&gt;Percent weight change is computed as: [(weight 1 year ago - current weight)/weight 1 year ago] * 100. Percent change &gt; 5 (representing a 5% loss of weight) is scored as 1 and &lt; 5 as 0.</td>
</tr>
</tbody>
</table>

¹ The total illnesses (0–11) are recoded as 0–4 = 0 and 5–11 = 1. The illnesses include hypertension, diabetes, cancer (other than a minor skin cancer), chronic lung disease, heart attack, congestive heart failure, angina, asthma, arthritis, stroke, and kidney disease.

**References:**


Clinical Frailty Scale (CFS)

**Scoring:** A clinician assigns one of the categories below based on observation of the patient and review of medical records. Additionally, those assigning the CFS score require access to diagnoses and assessments related to comorbidity, function, falls, delirium, cognitive impairment, and associated features that inform clinical judgments about the severity of frailty.

<table>
<thead>
<tr>
<th>Frailty Categories</th>
<th>Definition</th>
</tr>
</thead>
</table>
| 1. Very Fit        | "People who are robust, active, energetic and motivated. These people commonly exercise regularly. They are among the fittest for their age."
| 2. Well            | "People who have no active disease symptoms but are less fit than category 1. Often, they exercise or are very active occasionally, e.g. seasonally."
| 3. Well, with Treated Comorbid Disease | "People whose medical problems are well controlled, but are not regularly active beyond routine walking."
| 4. Apparently Vulnerable | "While not dependent on others for daily help, often symptoms limit activities. A common complaint is being "slowed up", and/or being tired during the day."
| 5. Mildly Frail    | "These people often have more evident slowing, and need help in high order IADLs (finances, transportation, heavy housework, medications). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation and housework."
| 6. Moderately Frail | "People need help with all outside activities and with keeping house. Inside, they often have problems with stairs and need help with bathing and might need minimal assistance (cuing, standby) with dressing."
| 7. Severely Frail  | "Completely dependent for personal care, from whatever cause (physical or cognitive). Even so, they seem stable and not at high risk of dying (within ~ 6 months)."

The following two additional categories are included in the revised version of the CFS:

<table>
<thead>
<tr>
<th>Frailty Categories</th>
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</tr>
</thead>
</table>
| 8. Very Severely Frail | "Completely dependent, approaching the end of life. Typically, they could not recover even from a minor illness."
| 9. Terminally Ill | "Approaching the end of life. This category applies to people with a life expectancy."

**References:**


Gérontopôle Frailty Screening Tool

**Scoring:** The researcher or clinician completes the two-part screener below, in order to determine if the patient/participant should be assessed for frailty using a full frailty instrument such as the Physical Frailty Phenotype.

<table>
<thead>
<tr>
<th>Frailty Criteria</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Part 1:</strong> Please answer Yes, No, or Do Not Know for the following questions about the patient / participant.</td>
<td></td>
</tr>
<tr>
<td>Live alone</td>
<td>“Does your patient live alone?” Yes, No, or Do Not Know</td>
</tr>
<tr>
<td>Involuntary Weight Loss</td>
<td>“Has your patient involuntarily lost weight in the last 3 months?” Yes, No, or Do Not Know</td>
</tr>
<tr>
<td>Fatigue</td>
<td>“Has your patient been more fatigued in the last 3 months?” Yes, No, or Do Not Know</td>
</tr>
<tr>
<td>Increased Mobility Difficulties</td>
<td>“Has your patient experienced increased mobility difficulties in the last 3 months?” Yes, No, or Do Not Know</td>
</tr>
<tr>
<td>Memory Problems</td>
<td>“Has your patient complained of memory problems?” Yes, No, or Do Not Know</td>
</tr>
<tr>
<td>Slow Gait Speed</td>
<td>“Does your patient present slow gait speed (i.e., &gt;4 seconds to walk 4 meters)?” Yes, No, or Do Not Know</td>
</tr>
</tbody>
</table>

**Part 2:** If you have answered YES to one or more of these questions, please answer the following:

| Frail?                           | “Do you think your patient is frail?” Yes or No                                                      |
| Willing to be assessed?          | “If yes, is your patient willing to be assessed for his/her frailty status at the frailty clinic?” Yes or No |

\(^1\) Intended for use with patients aged 65 years and older without both functional disability (activities of daily living score ≥5/6) and current acute disease

**References:**

