



UNIVERSITY OF ALBERTA
FACULTY OF MEDICINE & DENTISTRY

Edmonton Frail Scale

Tool Kit
Version 1.7

Table of Contents

Purpose of the EFS Tool Kit.....	3
Administration of the Edmonton Frail Scale.....	3
Preparation and Orientation to the EFS.....	3
1. Cognition.....	4
2. General Health Status.....	4
3. Functional Independence.....	5
4. Social Support.....	5
5. Medication Use.....	5
6. Nutrition.....	6
7. Mood.....	6
8. Continence.....	6
9. Functional Performance.....	6
Interpretation and Scoring of Edmonton Frail Scale CDT.....	7
Pass.....	7
Fail with Minor Errors.....	8
Fail with Major Errors.....	9
Edmonton Frail Scale Interpretation.....	10
Overall Score.....	10
Appendix.....	10
What you will need before you start.....	11
Tips for Setting Up the Interview.....	11
Response Cue Sheet.....	14
Copyright and Licensing.....	15

Purpose of the EFS Tool Kit

Development of the Edmonton Frail Scale (EFS) started in 1999 and versions of it were used for both research and clinical purposes since then. Since its validation and reliability was presented for peer review in 2000, then published in 2006, the EFS has been increasingly used for research, educational, and clinical purposes worldwide. In response to a need, this Tool Kit has been developed to offer instructions on how to administer and score the EFS.

Please see EdmontonFrailScale.org for more information on background and research to date. The website also provides information tailored to clinicians, researchers, and individuals and families. Finally, the website provides a way to obtain an official copy of the EFS, translated versions, and other training materials.

Administration of the Edmonton Frail Scale

Preparation and Orientation to the EFS

The Edmonton Frail Scale is designed to be included in a paper chart, and includes a pre-drawn 10 cm diameter circle. Ideally, a blank copy of the EFS would be prepared on a double-sided single page. A patient identifier can be placed in the top right corner.

Before starting you will need to have the following (see Appendix)

- A double sided paper copy of the Edmonton Frail Scale (see Appendix)
- A response cue sheet (see Appendix)
- A clipboard
- Measuring tape or a pre-measured string (3 meters)
- An armless chair (or side chair) without wheels
- The person's visual or hearing aids
- A list or collection of the person's medications

Here are a few tips for setting up the interview

- Ensure seating for all involved
- Locate and position the armless chair, ensure a straight and unobstructed path, then position a landmark or marker to clearly show a distance of three meters.
- Minimize environmental distractions
- Ensure that the person is not acutely ill or impaired by medications, and that any pain is under control.
- Double check on visual and hearing aids.
- If possible, invite someone to be present who has an accurate understanding of the person's circumstances, seated to the person's side.

There are eleven items in the EFS, representing nine different aspects of health. Higher scores suggest more frailty. Two items are based on the performance of the individual. Four items should be answered by the individual without any input from others. If there are any problems with the first item, the clock

drawing test, then prompting by the accompanying person, and verification by the interviewer is permitted for the remaining five items (marked with an *). The last item can be scored as a 2 without performing the test when the subject is reluctant or unable, or when safe performance would require a safety belt, walking aid, or assistance from another person.

1. Cognition

This component is comprised of a clock-drawing test with a simple scoring system. The subject is provided a sheet of paper with a pre-drawn ten cm diameter circle. To remove distractors, the paper should be folded in half before presenting it to the subject. Provide the following instructions verbally to the subject:

“Please imagine that this circle is a clock. I would like you to place the numbers in the correct positions, then place the hands to indicate a time of ‘ten after eleven.’”

If the subject asks for clarification, or repetition, then the same instructions may be repeated once. However, the clock drawing must be done without any other help.

Before proceeding, the interviewer must then determine whether the clock drawing is normal. If not, then the scoring for items marked with an asterix (*) can be influenced by the input of the accompanying person and the best judgment of an informed interviewer. Unless there is good reason to do otherwise, the responses by the person being interviewed should be used to score each item.

Please see *Scoring of Edmonton Frailty Scale CDT* below for instructions on scoring. If there are minor errors (column B) or major errors (column C), invite the accompanying person who knows the subject to participate using language such as the following:

“For the rest of this test, I will direct my questions to (subject’s name). However, I’ll let you know when you may work together on the answer.”

2. General Health Status

“In the past year, how many times have you been admitted to a hospital?” (* input is allowed)

“Admitted to a hospital” is defined as

- At least one day admitted under the care of a designated care team.
- Elective or acute.
- Intermediate care such as for inpatient rehabilitation
- Active treatment in a long-term care or intermediate care facility.

“Admitted to a hospital” does **not** include

- Assessment and treatment in an emergency department alone
- Assessment in a pre-admission clinic alone
- Day-surgery without an overnight stay
- Non-acute care in a long term-care facility, respite, or hospice
- Transfers to different hospitals if continuous with another admissions that has been counted.

“In general, how would you describe your health?” (no other input)

Provide a copy of the response cue sheet, and score based only on the person’s response.

3. Functional Independence

“With how many of the following activities do you require help?” (* input is allowed)

This question is intended to assess the baseline functional status of an individual. Provide the list of eight instrumental activities of daily living on the response cue sheet. The following guidelines can be used to achieve a consistent and accurate score.

- If there has been a recent change due to acute illness, the score should reflect the baseline status of the individual
- Likewise, if the person is recovering from recent illness, we should estimate their future abilities when they have recovered.
- The score should be based on an estimate of their ability, even if they do not normally perform the task.
- Ultimately, the scoring rests on the judgment of the interviewer.

4. Social Support

“When you need help, can you count on someone who is willing and able to meet your needs?” (no other input)

This item is self-rated, even if others disagree with the response. The “helper” could be one or more individuals. Please redirect the subject if they interpret the question to include unusual circumstances that would normally require much more help.

5. Medication Use

“Do you use five or more prescription medications on a regular basis?” (* input is allowed)

The following guidelines will help determine which medications can be included in the count:

- Only prescription medications should count. Herbal and alternative products may be included if prescribed by a physician.
- ‘As needed’ medications that are taken regularly should count
- Don’t forget to include medications that are not pills such as eye drops, lotions or inhalers
- Score items that are being taken

“At times, do you forget to take your prescription medications?” (*input is allowed)

This item should be scored based on the best available information. If the individual uses a compliance aid such as blister-pack or reminder system, and is therefore adherent, a score of 0 is applied. This avoids double counting the medication item in the functional independence section above.

6. Nutrition

“Have you recently lost weight such that your clothing has become more loose?” (* input is allowed)

Some individuals may normally wear loose clothing, making a change difficult to detect. It is acceptable to score “yes” if there is other evidence of weight loss that would result in more loose clothing.

7. Mood

“Do you often feel sad or depressed?” (no other input)

This item should be self-rated, even if others disagree. Please refrain from rewording, redefining or coaching with this question. Please take the response on face value even if dementia is suspected. Please refrain from inferring depression, even if there are atypical manifestations such as anxiety, functional decline, cognitive decline or somatization.

8. Continence

“Do you have a problem with losing control of urine when you don’t want to?” (* input is allowed)

As with other items, dialogue with the accompanying person is permitted to determine whether there is a “problem”, as ultimately judged by the interviewer. The use of continence aids alone doesn’t make it a problem. It is a problem if incontinence is having a negative impact on well-being, independence, and social behavior.

9. Functional Performance

This final item is performance-based and timed. The subject is asked to sit in a chair with their back and arms resting. The assessor should indicate a point that is 3 meters (ten feet) away. The subject receives the following instructions:

“I would like you to 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, return to the chair and sit down.”

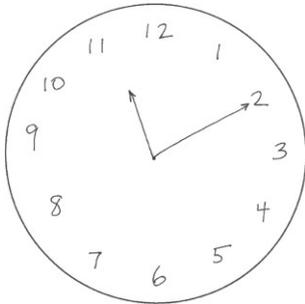
The score is based on the amount of time it takes the patient to complete this test. The following guidelines will help ensure efficient and safe administration and scoring of this item

- The subject is permitted to use a mobility aid if they wish, however, they should be unaided by another person.
- If patient is reluctant or unable to complete the test, they should be scored as major impairment (2 points).

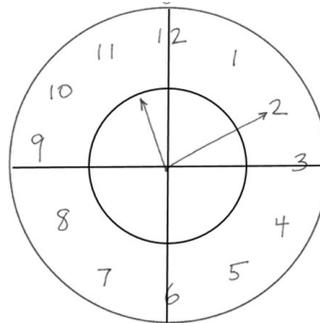
- If safe performance of the test requires a safety belt, walking aid or another person, score major impairment (2 points).
- If the subject is not acutely ill, the score should be based on observed performance.

Interpretation and Scoring of Edmonton Frail Scale CDT

The following imaginary lines are needed for interpretation



Before imaginary lines



After imaginary lines

The clock is divided into four quadrants. Imagine a vertical line that cuts the circle in half, running through the number 12. Then imagine a perpendicular line that bisects the first line at the center of the clock. Finally, imagine another circle half the diameter in the center, thus forming an inner and outer portion of the first circle. Any numbers that are bisected by these imaginary lines should be included in the quadrant that is in the clockwise direction. Numbers that straddle the inner and outer portions should be included in the inner portion. With these imaginary lines in mind, you are ready to score the clock

After the clock drawing test (cognition) has been done, the scoring of this falls into the following three categories:

Pass

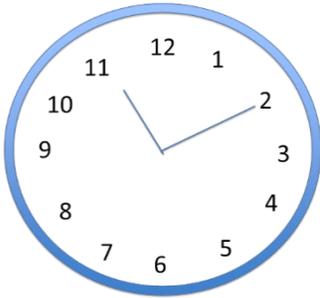
EFS Score – 0

Hands and numbers are all present in the correct position. There are:

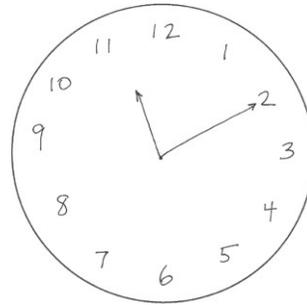
- No added numbers
- No duplicated numbers
- No missing numbers
- Proper number sequence
- Three numbers in each quadrant (rotate bisected # clockwise)
- No numbers partially or completely in inner circle
- Hands are different length and correctly placed

The following are examples of an EFS Score – 0

Example 1: EFS Score – 0



Example 2: EFS Score – 0



Fail with Minor Errors

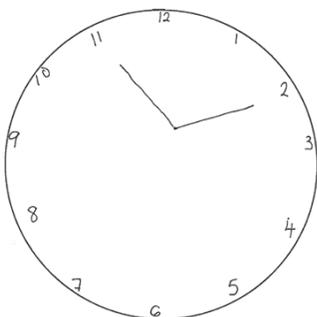
EFS Score – 1

Hands and numbers are all present. Hands are correctly placed. However, there **are minor spacing errors or hands of equal length**. There are:

- No added numbers
- No duplicated numbers
- No missing numbers
- Proper number sequence
- At least one quadrant contains two or four numbers
- Numbers cross partially or completely into the inner circle
- Hands correctly placed but equal in length

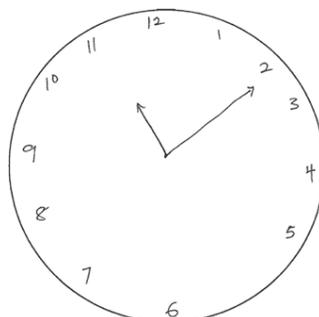
The following are examples that fit into the EFS Score – 1

Example 3: EFS Score – 1



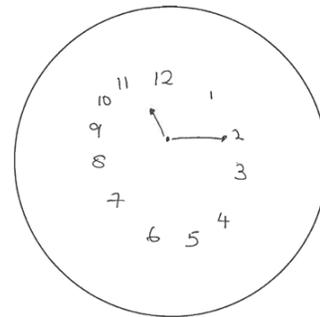
Hands equal length

Example 4: EFS Score – 1



Four numbers in first quadrant

Example 5: EFS Score - 1



Numbers enter the inner circle

Fail with Major Errors

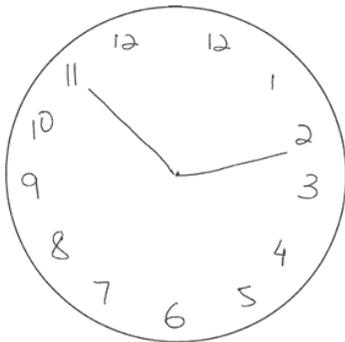
EFS Score – 2

Placement of the hour and minute hands are significantly off course. There are:

- Additions
- Duplications
- Omissions
- Incorrect number sequence
- Hands incorrect or missing
- Major spacing errors (quadrant contains 0,1,5 or more)

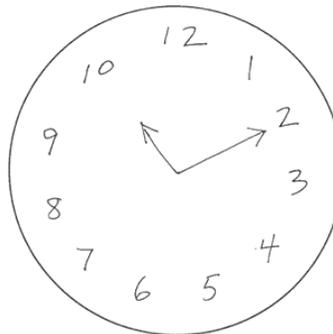
The following are examples of EFS Score – 2

Example 6: EFS Score 2



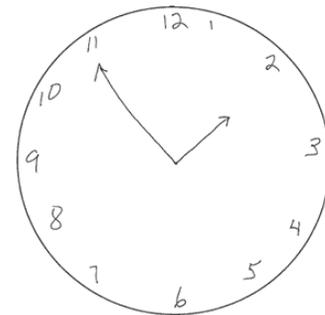
Duplication

Example 7: EFS Score – 2



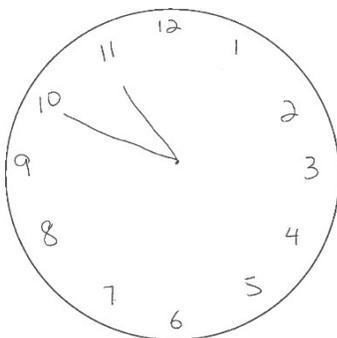
Omission

Example 8: EFS Score - 2



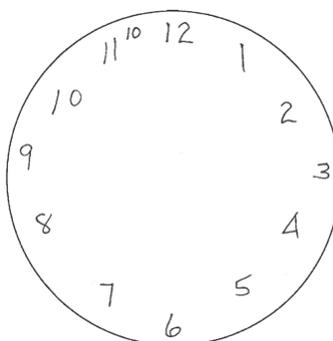
Hands reversed

Example 9: EFS Score - 2



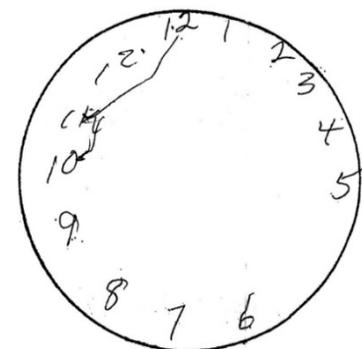
Minute hand incorrect

Example 10: EFS Score - 2



Digital Display

Example 11: EFS Score 2



Multiple Errors

Edmonton Frail Scale Interpretation

Overall Score

- 4 – 5 = Vulnerable
- 6 – 7 = Mild Frailty
- 8 – 9 = Moderate Frailty
- 10 or more = Severe Frailty

Appendix

1. What you will need before you start
2. Tips for Setting Up the Interview
3. The Edmonton Frail Scale
4. Response Cue Sheet

What you will need before you start

- A double-sided paper copy of the Edmonton Frail Scale
- A response cue sheet
- A clipboard
- Measuring tape or a pre-measured string (3 meters)
- An armless chair without wheels, matched to body size of the person.
- A marker to indicate distance from the chair
- The person's visual or hearing aids
- A list or collection of the person's medications

Tips for Setting Up the Interview

- Ensure seating for all involved
- Locate and position the armless chair, ensure a straight unobstructed path, then position a landmark or marker to clearly show a distance of three meters.
- Minimize environmental distractions
- Ensure that the person is not acutely ill or impaired by medications, and that any pain is under control.
- Double check on visual and hearing aids.
- If possible, invite someone to be present who has an accurate understanding of the person's circumstances, seated to the person's side.

The Edmonton Frail Scale

Bedside Version

Date _____	× 1 =	B	PATIENT IDENTIFICATION																													
Examiner _____ <small>(name, relationship to patient)</small>	× 2 =	C																														
Additional Source _____		Total Score																														
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 10%;"></td> <td style="width: 10%;">FIT</td> <td style="width: 10%;">VULNERABLE</td> <td style="width: 10%;">MILD</td> <td style="width: 10%;">MODERATE</td> <td style="width: 10%;">SEVERE</td> </tr> <tr> <td style="font-weight: bold;">Scoring the EFS</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td></td> <td></td> <td></td> <td>6</td> <td>7</td> <td>8</td> </tr> <tr> <td></td> <td></td> <td></td> <td>9</td> <td>10+</td> <td></td> </tr> <tr> <td></td> <td colspan="4" style="border-top: 1px solid black;">FRAILITY</td> <td></td> </tr> </table>					FIT	VULNERABLE	MILD	MODERATE	SEVERE	Scoring the EFS	1	2	3	4	5				6	7	8				9	10+			FRAILITY			
	FIT	VULNERABLE	MILD	MODERATE	SEVERE																											
Scoring the EFS	1	2	3	4	5																											
			6	7	8																											
			9	10+																												
	FRAILITY																															

Questions	A	B	C
<i>For each item choose only one option in column A, B or C. Points are assigned based on the column. Please see the EFS Tool Kit for more detailed instructions.</i>	A = 0	B = 1	C = 2

1. Cognition

Clock Drawing Test

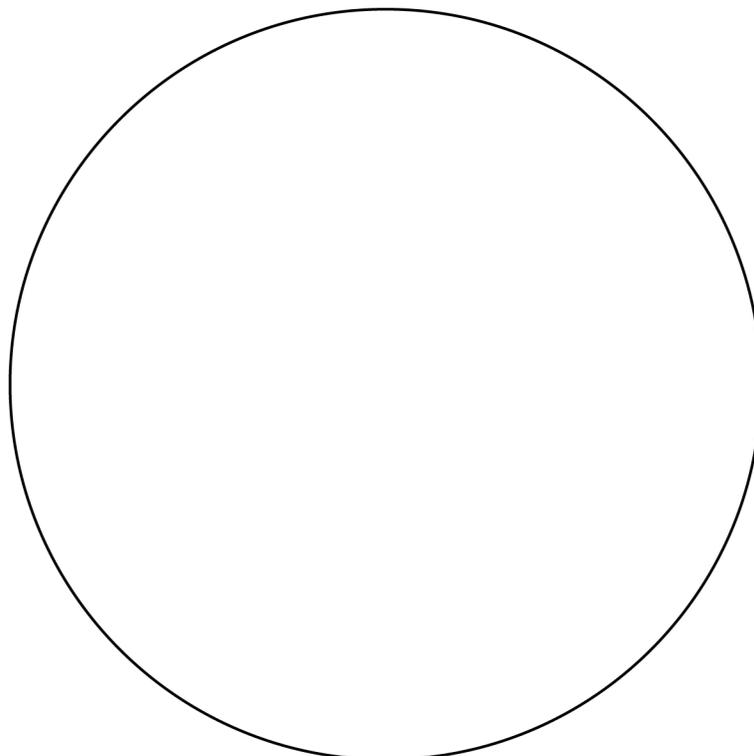
"Please imagine that this circle is a clock. I would like you to place the numbers in the correct positions, then place the hands to indicate a time of *ten after eleven*."

PASS

FAIL WITH
MINOR
ERRORS

FAIL WITH
MAJOR
ERRORS

Fold at the dotted line before asking the patient to start in order to conceal distracters.



Questions	A	B	C
<i>If the clock drawing test (item 1) scores in column B or C, then subsequent items marked with an asterix* may be scored based on the best information available.</i>	A = 0	B = 1	C = 2

2. General Health Status

* a) In the past year, how many times have you been admitted to a hospital?	0	1-2	>2
b) In general, how would you describe your health? <i>(Select one)</i>	EXCELLENT VERY GOOD GOOD	FAIR	POOR

3. Functional Independence

* With how many of the following activities do you require help? <input type="checkbox"/> Meal Preparation <input type="checkbox"/> Shopping <input type="checkbox"/> Telephone <input type="checkbox"/> Housekeeping <input type="checkbox"/> Taking Medications <input type="checkbox"/> Transportation <input type="checkbox"/> Laundry <input type="checkbox"/> Managing Money	0-1	2-4	5-8
---	-----	-----	-----

4. Social Support

When you need help is there someone who you can count on who is willing and able to meet your needs?	ALWAYS	SOMETIMES	NEVER
--	--------	-----------	-------

5. Medication Use

* a) Do you use 5 or more prescription medications on a regular basis?	NO	YES	
* b) At times have your forgotten to take your prescription medications?	NO	YES	

6. Nutrition

* Have you recently lost weight such that your clothing has become loose?	NO	YES	
---	----	-----	--

7. Mood

Do you often feel sad or depressed?	NO	YES	
-------------------------------------	----	-----	--

8. Continence

* Do you have a problem with losing control of urine when you don't want to?	NO	YES	
--	----	-----	--

9. Functional Performance

<p>Timed Get Up & Go Test - 3 meters "I would like you to 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 place I show you, return to the chair and sit down." Total time recorded _____ seconds</p> <p><i>Score this test item as >20 seconds if:</i> a) The individual is reluctant or unable to complete the test. b) Safe performance of the test requires a safety belt, walking aid or assistance from another person.</p>	0-10 SECONDS	11-20 SECONDS	>20 SECONDS
--	-----------------	------------------	----------------

Response Cue Sheet

In General, how would you describe your health?

- Excellent
 - Very Good
 - Good
 - Fair
 - Poor
-

With how many of the following activities do you require help?

- Meal Preparation
- Shopping
- Laundry
- Housekeeping
- Telephone
- Transportation
- Managing Money
- Taking Medications

Copyright and Licensing

The Edmonton Frail Scale was created by Rolfson DB, Majumdar SR, Tsuyuki RT, Tahir A, and Rockwood K, and presented at the Canadian Geriatric Society Annual Scientific Meeting in October 2000.

Copyright for the original Edmonton Frail Scale and subsequent versions is held by the University of Alberta. A license for the Edmonton Frail Scale can be obtained by contacting Dr. Darryl Rolfson (darryl.rolfson@ualberta.ca) or accessing FlintBox using the following link: <https://www.flintbox.com/public/project/58785/>

An abbreviated version of the Edmonton Frail Scale also appears in Table 1 of Rolfson DB et al., Validity and Reliability of the Edmonton Frail Scale, Age and Ageing 2006 Sep; 35(5): 526-9. Reproduction of any portion of this publication requires the permission of Oxford University Press, publisher for Age and Ageing. This can be requested by contacting OUP at journals.permissions@oup.com.