Fresubin®
Sarcopenia screening and how tools can support diagnosis
What is Sarcopenia?

Sarcopenia is the progressive loss of muscle mass, strength and physical performance associated with ageing and can also be influenced by nutritional status. Older adults have a higher prevalence of sarcopenia and it increases the risk of adverse outcomes like poor quality of life for example.1,2

Sarcopenia and functionality related consequences can impact on well-being.1,3

Sarcopenia and functionality related consequences can impact on well-being.1,3

Cycle of malnutrition, sarcopenia & frailty

Among other causes, a poor diet and malnutrition are risk factors for sarcopenia and frailty. Both worsen health outcomes such as physical disability, hospital admission and reduced quality of life.1,4

Step 1

Sarcopenia risk is identified by confirming low muscle strength by any of the following:

- Sarcopenia screening
- Sarcopenia assessment

Step 2

Diagnosis is confirmed by assessing low muscle quantity or quality:

- Sarcopenia diagnosis
- Sarcopenia confirmation

Step 3

Severity of sarcopenia is confirmed by a low score from any of the following physical performance outcome measurements:

- Sarcopenia severity
- Sarcopenia assessment

Step 4

Managing sarcopenia

- Nutritional support
- Physical activity
- Medication

Cases and assesses

A: Initial screening tool: SARC-F
B: Basic assessment supporting screening
C: Clinical practice: Triggering assessment of causes and start intervention

Sarcopenia screening and assessment1

In order to effectively manage sarcopenia, the HCP* or practitioner needs to first carry out appropriate screening within the clinical setting. Please find an easy step to step guide for screening and assessment as well as additional information on the following pages.1

James, 66
Seems to be weight stable with normal BMI
His general practitioner is worried about recent decline and function in daily activities:

- History of recent falls
- Difficulties with walking longer distances
- Problems with bringing back groceries
- Daughter mentioned poor diet quality

General practitioner considering if sarcopenia is an issue


* HCP: Healthcare Professional responsible for the diagnosis  ** CT: Computed tomography

What is Sarcopenia?

Sarcopenia is the progressive loss of muscle mass, strength and physical performance associated with ageing and can also be influenced by nutritional status. Older adults have a higher prevalence of sarcopenia and it increases the risk of adverse outcomes like poor quality of life for example.1,2

Sarcopenia and functionality related consequences can impact on well-being.1,3

Sarcopenia and functionality related consequences can impact on well-being.1,3

Cycle of malnutrition, sarcopenia & frailty

Among other causes, a poor diet and malnutrition are risk factors for sarcopenia and frailty. Both worsen health outcomes such as physical disability, hospital admission and reduced quality of life.1,4

Step 1

Sarcopenia risk is identified by confirming low muscle strength by any of the following:

- Sarcopenia screening
- Sarcopenia assessment

Step 2

Diagnosis is confirmed by assessing low muscle quantity or quality:

- Sarcopenia diagnosis
- Sarcopenia confirmation

Step 3

Severity of sarcopenia is confirmed by a low score from any of the following physical performance outcome measurements:

- Sarcopenia severity
- Sarcopenia assessment

Step 4

Managing sarcopenia

- Nutritional support
- Physical activity
- Medication

Cases and assesses

A: Initial screening tool: SARC-F
B: Basic assessment supporting screening
C: Clinical practice: Triggering assessment of causes and start intervention

Sarcopenia screening and assessment1

In order to effectively manage sarcopenia, the HCP* or practitioner needs to first carry out appropriate screening within the clinical setting. Please find an easy step to step guide for screening and assessment as well as additional information on the following pages.1

James, 66
Seems to be weight stable with normal BMI
His general practitioner is worried about recent decline and function in daily activities:

- History of recent falls
- Difficulties with walking longer distances
- Problems with bringing back groceries
- Daughter mentioned poor diet quality

General practitioner considering if sarcopenia is an issue


* HCP: Healthcare Professional responsible for the diagnosis  ** CT: Computed tomography

What is Sarcopenia?

Sarcopenia is the progressive loss of muscle mass, strength and physical performance associated with ageing and can also be influenced by nutritional status. Older adults have a higher prevalence of sarcopenia and it increases the risk of adverse outcomes like poor quality of life for example.1,2

Sarcopenia and functionality related consequences can impact on well-being.1,3

Sarcopenia and functionality related consequences can impact on well-being.1,3

Cycle of malnutrition, sarcopenia & frailty

Among other causes, a poor diet and malnutrition are risk factors for sarcopenia and frailty. Both worsen health outcomes such as physical disability, hospital admission and reduced quality of life.1,4

Step 1

Sarcopenia risk is identified by confirming low muscle strength by any of the following:

- Sarcopenia screening
- Sarcopenia assessment

Step 2

Diagnosis is confirmed by assessing low muscle quantity or quality:

- Sarcopenia diagnosis
- Sarcopenia confirmation

Step 3

Severity of sarcopenia is confirmed by a low score from any of the following physical performance outcome measurements:

- Sarcopenia severity
- Sarcopenia assessment

Step 4

Managing sarcopenia

- Nutritional support
- Physical activity
- Medication

Cases and assesses

A: Initial screening tool: SARC-F
B: Basic assessment supporting screening
C: Clinical practice: Triggering assessment of causes and start intervention

Sarcopenia screening and assessment1

In order to effectively manage sarcopenia, the HCP* or practitioner needs to first carry out appropriate screening within the clinical setting. Please find an easy step to step guide for screening and assessment as well as additional information on the following pages.1

James, 66
Seems to be weight stable with normal BMI
His general practitioner is worried about recent decline and function in daily activities:

- History of recent falls
- Difficulties with walking longer distances
- Problems with bringing back groceries
- Daughter mentioned poor diet quality

General practitioner considering if sarcopenia is an issue


* HCP: Healthcare Professional responsible for the diagnosis  ** CT: Computed tomography
Sarcopenia risk is identified by confirming low muscle strength through the following:

- Includes strength, assistance with walking, ability to rise from chair, climb stairs and falls frequency.
- Well validated in older adult population.

SARC-F is the most validated self-assessment tool to identify sarcopenia.

### SARC-F Questions: Scoring: James

<table>
<thead>
<tr>
<th>Question</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can you walk for 10 minutes?</td>
<td>2</td>
</tr>
<tr>
<td>Can you climb stairs?</td>
<td>2</td>
</tr>
<tr>
<td>Can you stand up from a chair without using your arms?</td>
<td>2</td>
</tr>
<tr>
<td>Have you had a fall in the last year?</td>
<td>2</td>
</tr>
<tr>
<td>How much difficulty do you have in climbing a flight of 10 stairs?</td>
<td>2</td>
</tr>
</tbody>
</table>

**Score:** 4

James’ SPPB is 5/12 points which indicates low physical performance outcome.

**Score:** 4 or more falls = 2

**Score:** 1–3 falls = 1

**Score:** None = 0

**Score:** Some = 1

**Score:** A lot or unable = 2

**Score:** A lot, use aid, or unable = 2

**Score:** A lot, use aid, or unable = 2

***Gait Speed***

- **Cut off points for low physical performance outcome:**
  - TUG** ≥ 20s
  - Gait Speed ≤ 0.8 m/s

**Score:** James’ Gait Speed is 0.67 m/s which indicates low physical performance outcome.

**Score:** Full-Tandem Stand

- Time ≤ 3 seconds = 1 point
- Time > 3 seconds = 2 points

**Score:** Semi-Tandem Stand

- Time ≤ 3 seconds = 1 point
- Time > 3 seconds = 2 points

**Score:** Side-by-Side Stand

- Time ≤ 3 seconds = 1 point
- Time > 3 seconds = 2 points

**Score:** Chair Stand Test

- Time ≤ 11.19 seconds: 4 points
- Time > 11.19 seconds ≤ 13.69 seconds: 3 points
- Time > 13.69 seconds: 2 points

**Score:** TUG**

- Time ≤ 16 seconds: 2 points
- Time > 16 seconds ≤ 20 seconds: 1 point
- Time > 20 seconds: 0 points

**Score:** Stool transfer test: manual help

- Time ≤ 11 seconds: 2 points
- Time > 11 seconds ≤ 15 seconds: 1 point
- Time > 15 seconds: 0 points

**Score:** Stool transfer test: no manual help

- Time ≤ 15 seconds: 2 points
- Time > 15 seconds ≤ 20 seconds: 1 point
- Time > 20 seconds: 0 points

**Score:** Standing balance test: 50% reduction

- Balance reduction ≤ 50% = 2 points
- Balance reduction > 50% = 1 point

**Score:** Standing balance test: 100% reduction

- Balance reduction = 2 points

**Score:** Chairards: 10 points

### Managing sarcopenia

- Use ONS high in energy and protein
  - For healthy older adults: at least 1.0 – 1.2 g protein/kg body weight/day
  - For patients over 65, the ideal protein intake is at least 1 g protein/kg body weight/day

**Score:** Fresubin ONS range

- Oral nutritional supplements high in energy and protein, with or without fibre content and can contain all vitamins and minerals.

**Score:** Evidence also suggests that older patients should be aiming for a more even distribution of protein and carbohydrates in their diet to manage sarcopenia effectively.

**Score:** Within our Fresubin portfolio you can find for your patients the most fitting solution to their individual nutritional needs as well as to their personal taste preferences.

**Score:** Fresubin ONS range

- ONS - oral nutritional supplements are for dietary deficiencies or specific medicinal indications.
  - Fresubin ONS products are food for special medical purposes, that have to be used under medical supervision.
  - Fresubin ONS range is a performance base test which aims to identify sarcopenia.

### Fresubin ONS ranges

- Management principles are based on nutritional and psychological principles used in the management of sarcopenia.

### SPPB Case: James

James is a 65 year old male who visited his GP due to feeling weak and unsteady on his feet. His chair stand time was 11.19 seconds.

### SPPB Case: James

James scored poorly. His chair stand assessment clearly showed delay and difficulties with standing independently. This is probable sarcopenia.

### Severity - defined by physical performance

- SPPB is the most validated self-assessment tool to identify sarcopenia.
- If the score is 4 or more, you will need to perform further assessment.

### Step 4: How can you dietary manage sarcopenia?

- Use ONS high in energy and protein
  - For healthy older adults: at least 1.0 – 1.2 g protein/kg body weight/day
  - For patients over 65, the ideal protein intake is at least 1 g protein/kg body weight/day

**Score:** Vitamin D support can also help to manage sarcopenia. It is important to ensure your patient’s vitamin D levels are normal.

**Score:** Fesubin ONS products are food for special medical purposes, that have to be used under medical supervision.

**Score:** Fresubin ONS range is a performance base test which aims to identify sarcopenia.

**Score:** Within our Fresubin portfolio you can find for your patients the most fitting solution to their individual nutritional needs as well as to their personal taste preferences.

**Score:** Fresubin ONS ranges

- ONS - oral nutritional supplements are for dietary deficiencies or specific medicinal indications.
  - Fresubin ONS products are food for special medical purposes, that have to be used under medical supervision.
  - Fresubin ONS range is a performance base test which aims to identify sarcopenia.

**Score:** Within our Fresubin portfolio you can find for your patients the most fitting solution to their individual nutritional needs as well as to their personal taste preferences.

**Score:** Fresubin ONS ranges

- ONS - oral nutritional supplements are for dietary deficiencies or specific medicinal indications.
  - Fresubin ONS products are food for special medical purposes, that have to be used under medical supervision.
  - Fresubin ONS range is a performance base test which aims to identify sarcopenia.

**Score:** Within our Fresubin portfolio you can find for your patients the most fitting solution to their individual nutritional needs as well as to their personal taste preferences.
Additional materials

Sarcopenia guideline poster
Find detailed information on recent guideline updates on this poster.

Sarcopenia assessment info video
Discover our video about the SPPB test, the most detailed and thorough test to confirm the severity of sarcopenia. This video is providing a practical help to follow through the test. www.fresubin.com

Exercise booklet
Find tips and tricks about physical training in this exercise booklet for your patients. It contains a vast variety of different exercises for strength, balance and flexibility. There is also information about nutritional needs and healthy eating.

Fresubin.com
Discover our online content and get information, exciting videos and additional materials. Don’t forget to explore our product portfolio as well!

References