**Muscle Matters:**
Protein Requirements for Muscle Preservation During Ageing

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**Aim**
This infographic aims to raise awareness among healthcare providers about the importance of protein intake for muscle preservation in older adults, highlighting the 'muscle matters'.

**Introduction**
Muscle health plays a vital role in maintaining overall well-being and quality of life as individuals age.¹

**High Prevalence of Suboptimal Protein Intake Among Older Adults**

<table>
<thead>
<tr>
<th>Protein intake recommendations</th>
<th>Consumption reality</th>
<th>Higher prevalence of suboptimal protein intake was associated with:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current RDA for all adults²</td>
<td>0.8 g/kg BW/d for all adults</td>
<td>Over 20% of older adults do not meet the basic recommendation of 0.8 g/kg BW/d</td>
</tr>
<tr>
<td>Expert recommendation for older adults (&gt;65 years)³</td>
<td>1.0-1.2 g/kg BW/d in healthy older people</td>
<td>-70% of older adults do not meet the higher recommendation of 1.2 g/kg BW/d</td>
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<tr>
<td>Up to 2.0 g/kg BW/d in acute or chronic disease</td>
<td>Data derived from surveys in community-dwelling adults aged ≥55 years (94% of participants aged ≥65 years)¹</td>
<td></td>
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</tbody>
</table>

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<th>Visual Indicators</th>
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<th>Clinical Indicators</th>
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<td>Unintentional weight loss</td>
<td>Poor food access</td>
<td>Loss of appetite</td>
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<td>Visible fat or muscle loss</td>
<td>Social isolation</td>
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<td>Other visual signs of poor nutrition</td>
<td>Bereavement</td>
<td>Poor dentition</td>
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<td>GI or bowel issues</td>
<td>Limited nutrition or cooking skills</td>
<td>Medication side effects</td>
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<td>Polypharmacy</td>
<td>Fixed eating</td>
<td>Low mood</td>
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<td>Unnecessary food restrictions</td>
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**Abbreviations**
BMI: body mass index; GI: gastrointestinal; g/kg BW/d: grams per kilogram of body weight per day; RDA: recommended dietary allowance.

**References**

**Call to Action**
Together, let’s recognise that ‘muscle matters’, and take action to ensure that our ageing patients receive optimal care for maintaining muscle health.

By implementing evidence-based recommendations, enhancing patient knowledge, and employing practical tips, we can make a significant impact on the well-being and quality of life of our ageing population.

**Take Action Now to Preserve Mobility and Quality of Life Later: Seven Steps to Support Patients in Achieving Adequate Protein Intake**

1. **Look and listen for red flags suggesting malnutrition or risk**
2. **Perform a nutritional assessment to capture potential low protein intake**
3. **Educate about importance of muscle health**
4. **Recommend adjustments to optimise protein intake**
5. **Provide tangible examples of nutrition with higher protein content (including suggested quantities)²**
6. **Supplement, e.g., recommend high-protein drinks¹**
7. **Demonstrate easy ways to be active and reduce sedentary time**

**Visual Indicators**
- Unintentional weight loss
- Visible fat or muscle loss
- Other visual signs of poor nutrition

**Social Indicators**
- Poor food access
- Social isolation
- Bereavement
- Limited nutrition or cooking skills
- Fixed eating
- Unnecessary food restrictions

**Clinical Indicators**
- Loss of appetite
- Swallowing difficulty
- Poor dentition
- GI or bowel issues
- Medication side effects
- Polypharmacy
- Low mood
- Chronic disease

**Maximise protein synthesis with even distribution of protein throughout the day’s meals³**

**Equal protein distribution**

- Breakfast
- Lunch
- Dinner

**Unequal protein distribution**

- Breakfast
- Lunch
- Dinner

10 g of protein are in:

- **Vegetable-based products**
  - 2 handfuls of nuts
  - 16 tablespoons of oatmeal
  - 400 g of cooked rice
  - 250 g of cooked pasta
  - 125 g of cooked pulses
  - 3 slices of bread
  - 1.5 slices of cooked tofu
- **Meat**
  - 33 g cooked beef
  - 15 g cooked liver
  - 33 g cooked chicken breast
  - 3 slices of ham
  - 2 slices of roast beef
  - 4 slices of chicken breast
- **Fish**
  - 50 g smoked salmon
  - 4 canned sardines
  - 45 g baked trout
- **Other**
  - 2 eggs
  - 15 glasses of milk
  - 15 bowls of yoghurt

**Spread protein intake across the day, aiming for 25-30 g per meal**

**Consume high-quality protein (e.g., 20 g protein supplement) immediately after exercise sessions to maximise muscle protein synthesis³**

- Equal protein distribution
- Unequal protein distribution

**References**