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Muscle Matters:

Protein Requirements for Muscle Preservation During Ageing

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Introduction

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

Aim

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

High Prevalence of Suboptimal Protein Intake Among Older Adults

Protein intake recommendations

Current RDA for all adults[2]	Expert recommendation for older adults (>65 years)[3]		
0.8 g/kg BW/d for all adults	**1.0–1.2** g/kg BW/d minimum intake for healthy older people	**1.2–1.5** g/kg BW/d in acute or chronic disease	**Up to 2.0** g/kg BW/d in severe illness* or injury or marked malnutrition

*Patients with severe kidney disease not on dialysis may need to limit protein intake[3]

Consumption reality

Over **20%** of older adults† do not meet the basic recommendation of 0.8 g/kg BW/d[1]

~70% of older adults† do not meet the higher recommendation of 1.2 g/kg BW/d[1]

Higher prevalence of suboptimal protein intake was associated with:[1]

Female sex

Higher BMI

Poor appetite

†Data derived from surveys in community-dwelling adults aged ≥55 years (94% of participants aged ≥65 years)[1]

Healthcare Professionals Can Help Fill the Gaps in Patient Knowledge

In a European survey of 1,825 adults aged ≥65 years:[4]

Over **35%** did not know what dietary protein is

Among those who did indicate awareness of dietary protein (n=1,180):

Only **~25%** were aware that having just one meal per day with a good protein source is insufficient

Over **75%** of all participants indicated that they would increase protein intake if recommended by a healthcare professional (i.e., physician or dietician)

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

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

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

Social indicators
- Poor food access
- Food insecurity
- Career stress
- Social isolation
- Bereavement
- Limited nutrition or cooking skills
- Fixated eating
- Unnecessary food restrictions

2 » Perform a nutritional assessment to capture potential low protein intake

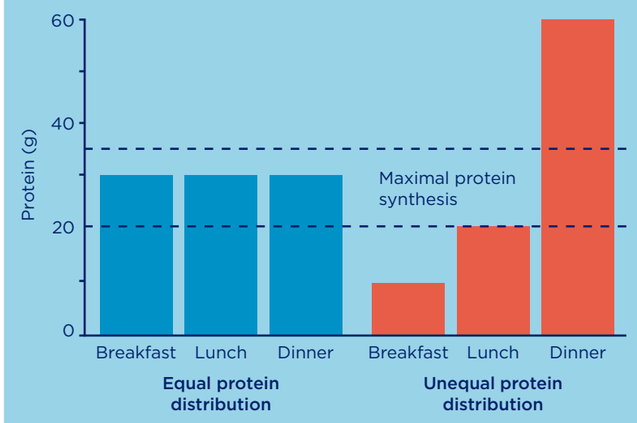
3 » Educate about importance of muscle health

4 » Recommend adjustments to optimise protein intake

Spread protein intake across the day, aiming for 25–30 g per meal[5,6]

Consume high-quality protein (e.g., 20 g protein supplement) immediately after exercise sessions to maximise muscle protein synthesis[2]

Maximise protein synthesis with even distribution of protein throughout the day's meals[5]



5 » Provide tangible examples of nutrition with higher protein content (including suggested quantities)[7]

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

Cheese
- 0.5 bowl of cottage cheese
- 2 slices mozzarella
- 1.5 slices Gouda cheese

Meat
- 33 g cooked beef
- 33 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
- 1.5 glasses of milk
- 1.5 bowls of yoghurt

6 » Supplement, e.g., recommend high-protein drinks[7]

7 Demonstrate easy ways to be active and reduce sedentary time

- Balance exercises/ gait training
- Power exercises
- Aerobic exercises/ walking
- Resistance training

Abbreviations

BMI: body mass index; **GI:** gastrointestinal; **g/kg BW/d:** grams per kilogram of body weight per day; **RDA:** recommended dietary allowance.

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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.