



Information to help meet protein needs

A HEALTHCARE PROFESSIONAL FACT SHEET

Protein is essential for repairing damaged tissues, maintaining muscle and maintaining a healthy immune system. Protein needs are often increased in older people and those who are unwell¹. Table 1 summarises the evidence-based guidelines for protein requirements in ageing and disease.²

Table 1: Protein requirements for older adults in health and disease^{2,3}

	Protein requirements g/kg body weight per day	Example daily protein requirements of a:	
		70kg male	55kg female
Healthy older adults	1.0 - 1.2g	70 - 84g	55 - 66g
Older adults with an acute/chronic condition	1.2 - 1.5g	84 - 105g	66 - 83g
Older adults with severe illness/injury	>1.5g	>105g	>83g

Multiple studies have indicated that 25–30 g of high-quality protein is necessary at each meal to optimally build or maintain muscle in older people and those who are unwell⁴⁻⁷. However, actual protein intakes among older adults, those who are unwell and those who are malnourished or at risk of malnutrition, are often inadequate^{2,8}. In the absence of adequate protein (and energy), loss of muscle can occur resulting in a decline in immunity, strength and the ability to perform everyday activities². In turn this can lead to a loss of independence, falls, and even mortality⁹.

Tailored dietary advice may be useful in increasing protein intakes. Table 2 (overleaf) shows the protein content of some common household foods which can be used as a guide to help your patient meet their daily protein requirements.

PROTEIN CONTENT OF SOME EVERYDAY FOODS

References

1. Cawood, et al. Systematic review and meta-analysis of the effects of high protein oral nutritional supplements. *Ageing Res Rev.* 2012 Apr;11(2):278-96.
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3. Bauer, et al. Evidence-based recommendations for optimal dietary protein intake in older people: A position paper from the PROT-AGE study group. *J Am Med Dir Assoc.* 2013; 14(8): 542–59.
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5. Deutz and Wolfe. Is there a maximal anabolic response to protein intake with a meal? *Clin Nutr.* 2013; 32:309–13.
6. Mamerow, et al. Dietary protein distribution positively influences 24-h muscle protein synthesis in healthy adults. *J Nutr.* 2014; 144:876–80.
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8. National Diet and Nutrition Survey: Years 1 to 9 of the Rolling Programme (2008/2009 – 2016/2017): Time trend and income analyses. January 2019. <https://www.gov.uk/government/statistics/ndns-time-trend-and-income-analyses-for-years-1-to-9> Accessed 06/11/19.
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10. Food Standards Agency. Food portion sizes. 3rd edition. London: TSO, 2002.
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Table 2: Approximate protein content in everyday foods⁹

Meat, Fish and Poultry	Quantity*	Protein
Fish, white	150g	35.9g
Beef	90g	32.6g
Pork	90g	27.1g
Chicken	100g	27.3g
Lamb	90g	25.4g
Tuna (as sandwich filling)	45g	11.2g
Ham	46g	8.5g
Egg	50g	7.1g
Dairy products	Quantity*	Protein
Cheddar cheese	45g	11.4g
Rice pudding	200g	10.4g
Yogurt, whole, plain	125g	7.1g
Milk, semi skimmed	100g (on cereal) / 25g (in tea/coffee)	3.5g / 1.1g
Milk, whole	100g (on cereal) / 25g (in tea/coffee)	3.4g / 0.9g
Chocolate mousse	60g	2.4g
Ice cream	75g	2.4g
Cream cheese	30g	1.6g
Skimmed milk powder, fortified	3g (in tea/coffee)	1.1g
Plant based proteins	Quantity*	Protein
Roasted peanuts	40g	10.3g
Baked beans	135g	6.8g
Green peas	70g	4.7g
Chickpeas	60g	4.6g
Green Lentils	40g	3.5g
Peanut butter	15g	3.4g
Potato	175g	3.2g
Almonds	13g (6 almonds)	2.7g
Kidney beans	35g	2.4g
Soya milk	100g (on cereal) / 25g (in tea or coffee)	2.4g / 0.6g

*Based on 'average portion sizes' as listed by the Food Standards Agency¹⁰

When protein deficit is significant, dietary advice may not be enough to adequately supplement intakes, particularly in the presence of poor appetite. Oral nutritional supplements (ONS) in addition to dietary advice have been shown to significantly improve protein intakes and clinical outcomes (particularly high protein ONS)¹ and may be useful to consider for patients at high risk of malnutrition. They also provide additional energy and micronutrients to improve overall nutrient intakes. Table 3 shows the protein content of different types of multi-nutrient ONS. When choosing the most appropriate ONS for your patient, consider individual patient needs, such as nutritional requirements, appetite, their ability to manage larger volumes, physical function or dexterity and their ability to prepare powdered supplements.

Table 3: Approximate protein in multi-nutrient ONS

	Serving size (estimated)	Protein (per serving)	Protein (per 100ml)
Low volume ready to drink high protein* supplements	125ml	13 - 20g	10 - 16g
Standard ready to drink high protein* supplements	200 - 220ml	14 - 20g	7 - 10g
Standard ready to drink supplements	200ml	8 - 10g	4 - 10g
Standard powdered supplements**	237 - 250ml	16 - 18g	7 - 8g
Standard ready to drink juice style supplements	200 - 220ml	8 - 11g	4 - 5g

Figures above worked out on an average of manufacturers oral nutritional supplement products as available on MIMS November 2019¹¹

*≥ 20% energy from protein **When reconstituted with milk

For more information about managing malnutrition with dietary advice and oral nutritional supplements, visit www.malnutritionpathway.co.uk