

Protein: Fuelling your body to avoid frailty in Later Life

Protein is an important part of a healthy diet and is needed for:

- Keeping our muscles strong
- Supporting our immune system
- Helping our bodies make hormones and enzymes that carry out important jobs
- Making new cells and repairing old ones
- Helping wounds heal

Getting enough protein each day can help us stay active, independent, recover from illness quickly and maintain our overall health.

What happens to muscles as we get older?

As our bodies age our muscle bulk naturally reduces so we have fewer muscle fibres (the tissue that contracts and relaxes to allow us to move our bodies). This happens more readily once we are over 60, but starts for most people in their 30's and 40's. This is part of normal aging. More fat is laid down where it's not meant to be within the muscles and the type of muscle fibres change so they are less responsive to the things we ask them to do. Other things also happen in our bodies as we get older: our hormone levels change, mitochondria (the cells that release energy in the body) become less efficient and we stop absorbing important nutrients from our food which can lead to weaker muscles. If we are unlucky, or do nothing to help our muscles stay strong, this can turn into a medical condition called sarcopenia where there is enough muscle loss to cause problems with day-to-day life. This is more likely to happen if you have lots of long-term health conditions, and can accelerate if you become very unwell and need a hospital treatment. Sarcopenia is one of the main contributing factors to frailty, where the body becomes less resilient to even minor health challenges.

This all sounds very negative, but by making sure we **'USE IT'** by **exercising** and **'FUEL IT'** through eating the right amount of **protein** we can help **keep strength** and not 'lose it' as the saying goes!

How much protein do we need?

We need different amounts of protein at different times of life to keep our bodies working to the best of their abilities. However, it is sometimes overlooked that older adults need to eat more protein just to maintain their muscles and body systems compared with younger people.

- Healthy **adults under 65 years** of age need **0.75g** of protein daily for each kg of body weight (g/kg)
- **Healthy adults over 65 years** of age need **1g-1.2g/kg** of protein daily
- **Adults over 65 years** of age who **exercise regularly** or who live with a **long-term condition** like cancer, COPD or leg ulcers need **1.2g-1.5g/kg** of protein daily
- **Adults over 65 years** of age who are, or have recently been **seriously unwell** such as needing hospital treatment for an infection or operation are likely to need even more protein, **up to 2g/kg**.

Anyone with chronic kidney disease (CKD) stage 4 or 5 may need to eat less protein. If you think this applies to you, speak to your kidney specialist or GP before increasing your protein intake.

*If you are overweight you may need to adjust protein intake to account for this. You need 75% of the above amounts if your body mass index (BMI) is over 30kg/m² and 65% if it's over 50kg/m². A link to the NHS BMI calculator can be found at the end of this document.

My current weight (kg):

My BMI:

My recommended daily protein intake:



Which foods are rich in protein?

Good sources of protein include **meat, fish, eggs** and dairy foods, such as **milk, yoghurt** and **cheese**. Plant-based sources of protein include **tofu/soy, beans, pulses, nuts** and **seeds**. The table below will give you an idea of how much is in each different food to help with your choices.

Food	Portion size	Amount of protein
Chicken	100g (half a large chicken breast)	25g
Lean minced beef	100g	20g
Pork	100g (1 chop or 2 sausages)	20g
White fish	100g (1 small fillet)	19g
Tuna	60g (half a can)	15g
Eggs	2 large	15g
Quorn mince	100g	14g
Tofu (firm)	100g	12g
Lentils/chickpeas	120g (half a can drained)	10g
Baked beans	200g (half a can)	10g
Fat free Greek yoghurt	100g	10g
Quinoa (cooked)	185g	8g
Cheddar cheese	30g (matchbox size)	7.5g
Pasta (dried and uncooked)	60g	7g
Milk	200ml (1 glass)	7g
Soya milk	200ml (1 glass)	6g
Rolled oats	40g	5g
Standard yoghurt	120g (1 pot)	5g

It is important to spread your protein intake out throughout the day with roughly equal portions at each meal. Protein drinks can be helpful in some situations, however we can usually get enough protein through normal food with a little bit of thought.

Ways to increase protein in your diet:

- Fill at least a **quarter of your plate** with protein-based foods at every meal.
- **Add beans, pulses or lentils** to casseroles, shepherd's pies and soups. This is a cost-effective way to enrich meals with added protein and gut friendly fibre (the canned versions are just as good as ones that you have prepared yourself).
- Use dairy more frequently. **Try using milk instead of water** in cooking and drinks. Add a **sprinkle of cheese** or skimmed milk powder to soups, sauces or mash. This also helps boost calcium intake to protect your bones.
- Have a **milky dessert**, such as yoghurt or custards after meals.
- Try Greek yoghurt with fruit or 'overnight oats' made with oats, **yoghurt and fruit** for a filling breakfast that includes some of your '5 a day' as well. Frozen berries are a great addition for added flavour and sweetness too.
- **Add nuts and seeds** to salads and pasta, sprinkle on soup, yoghurt, or porridge for extra crunch, or eat a small handful as a snack. Nuts are great sources of other important vitamins and minerals such as selenium and magnesium which boost health in other ways. **Nut butters** can add protein to meals too whether on toast at breakfast, or added to soups and sauces.
- Choose sandwich fillings that are protein-rich, such as chicken, egg, tuna, or tinned salmon (which also contains heart healthy omega-3).
- **Swap** some of your regular **snacks** for protein rich foods like hummus with vegetable sticks or crackers, or edamame beans.

Many supermarkets and food suppliers now sell 'high protein' ready prepared meals. These can be a good option for ease, but check the labels carefully, sometimes the 'regular' versions can have just as much protein if not more!

Other useful information :

To calculate your BMI visit: <https://www.nhs.uk/health-assessment-tools/calculate-your-body-mass-index/calculate-bmi-for-adults>

If you are unsure if chronic kidney disease affects you, you can learn more at:

<https://kidneycareuk.org/kidney-disease-information/kidney-conditions/patient-info-ckd-chronic-kidney-disease/>

If you follow a vegan or vegetarian diet, or are just interested in learning more about healthy plant-based protein sources, you can find information at:

<https://plantbasedhealthprofessionals.com/wp-content/uploads/2024/05/Proteinfactsheet-240501.pdf>

For more information on maintaining your health as you age and preventing frailty visit: www.thelaterlifeGP.co.uk or follow on social media @thelaterlifeGP

