

NOT ALL TYPES OF PROTEIN ARE EQUAL: QUALITY MATTERS

When it comes to stimulating Muscle Protein Synthesis with ageing, the digestibility, amino acid availability and amino acid content are important factors to consider.

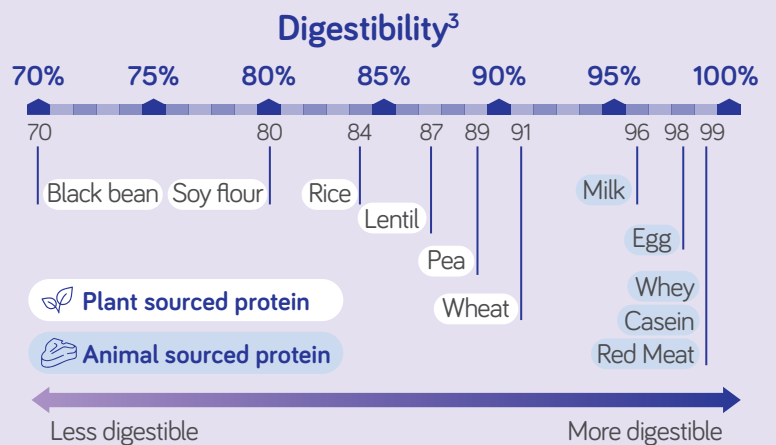
Animal-based proteins are often preferred over plant-based proteins when we consider what proteins are best to consume when we age.^{1,2} This is due to plant-based proteins having less of an anabolic effect than animal-proteins due to their lower digestibility and essential amino acids content, especially leucine.³



WHY IS DIGESTIBILITY IMPORTANT?

Digestibility relates to the capacity of the protein's ability to be digested, absorbed, and utilised by the body.⁴

Animal proteins have a higher digestibility rate than plant-based proteins.³

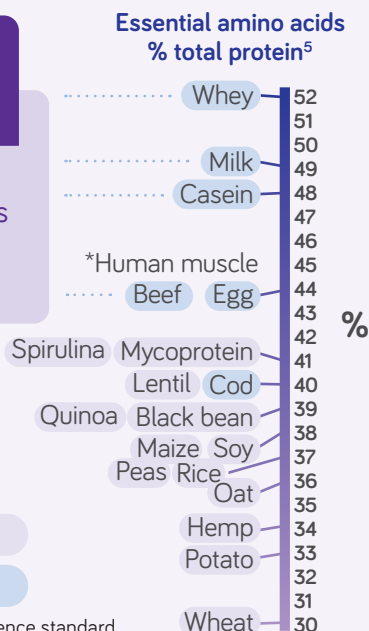


WHY IS ESSENTIAL AMINO ACIDS CONTENT IMPORTANT?

As the body cannot adequately produce essential amino acids they must be consumed as part of the diet. This brings importance to the amount and type of essential amino acids in food sources.

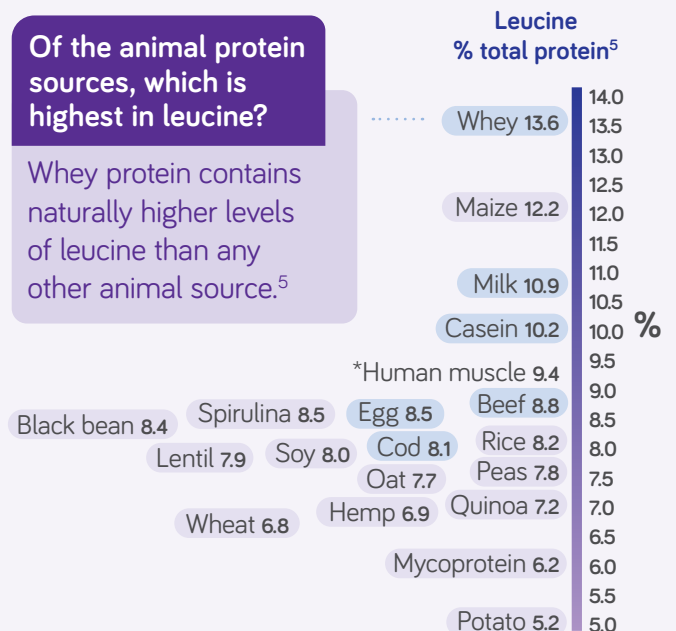
Which protein sources contain all essential amino acids?

Animal proteins are complete protein sources as they contain all nine essential amino acids.⁵



Of the animal protein sources, which is highest in leucine?

Whey protein contains naturally higher levels of leucine than any other animal source.⁵

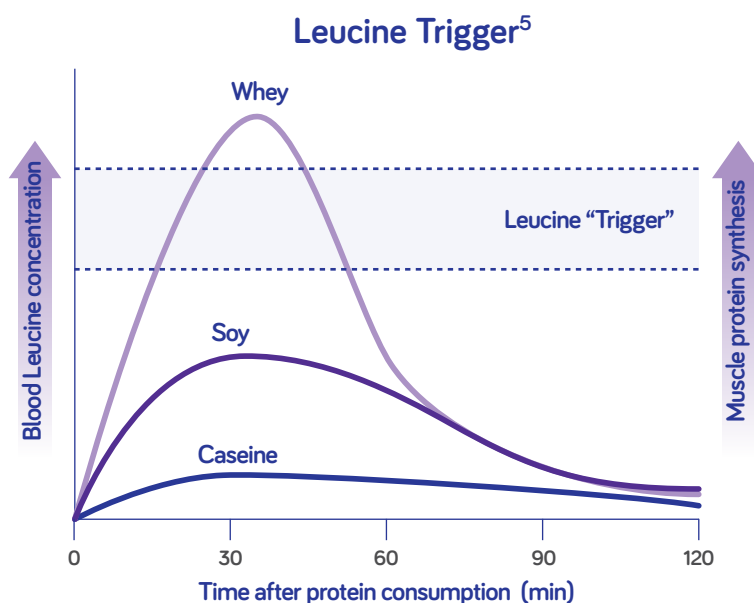


* Human muscle is provided as a reference standard

WHY IS LEUCINE IMPORTANT?

Leucine ‘triggers’ muscle protein synthesis⁶

After consuming whey protein there is a rapid rise in plasma leucine concentration compared to soy and or casein-based protein consumption. This parallels the stimulation rates of muscle protein synthesis.⁶

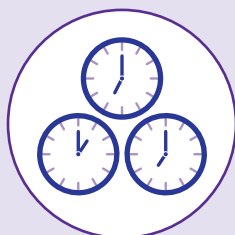


PROTEIN AND AGEING RECOMMENDATIONS

For healthy older adults (≥65 years):



Higher protein intake
> 1.2g/kg body weight
per day⁷⁻¹⁰



Even distribution of protein across
breakfast, lunch and dinner:
each meal should contain 25-30g
of protein with 2-3g of leucine^{8,11}



Ensure choice of protein is of high
quality as >10g of essential amino
acids is necessary to sufficiently
stimulate muscle protein synthesis.¹²

HOW CAN PROTEIN SUPPLEMENTATION SUPPORT A HEALTHY BALANCED DIET?



If an individual is unable to obtain adequate quality protein from diet alone protein supplementation can help achieve a positive protein balance in the body and help attenuate muscle loss and support muscle growth.¹³

Whey protein isolate is a high-quality protein, as it is fast-digesting and easily absorbed by the body and contains all nine essential amino acids (EAA) necessary to repair and build muscle.

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