



# Altrapro

PRESENTED BY SAFFRON ORWIN



# About me!

- Qualified Dietitian
- Worked in the NHS across MCR for 5 years
- Specialised in Gastro & Cystic Fibrosis
- Fell in love with Nualtra, their products and ethos in 2023
- Moved into industry
- Job role includes product development, presx data analysis, dietitian queries, ONS education to universities, sharing new products!



# Nualtra Product Range



# Where are dietitians typically using protein shots?

- Oncology: when intake is poor and protein targets are difficult to meet with food or standard ONS.
- Gastro: sarcopenia in cirrhosis and higher protein requirements where volume tolerance can be limited.
- Frailty/Older adults: low appetite and anabolic resistance where small volumes are often better accepted.
- Renal: replacing amino acid losses, but needing a low K and po4 profile.
- Neurology: where fluid volume is restricted but protein intake still needs to be maintained.
- Wound healing and skin integrity: where higher essential amino acid intake is often prioritised.
- Diabetes, overweight and obese patients where additional protein is needed but not the calories.



**Expensive**

**Most current shots  
rely on bovine  
collagen.**

**No  
vegetarian  
60ml option**

**Does Nualtra have  
a protein shot?**

**Collagen is low in leucine,  
EAAs and lacks evidence in  
Muscle Protein Synthesis.**

**Poor compliance  
due to taste. Off putting  
comes from bovine  
collagen.**



# What did dietitians want for their patients?

Dietitians were looking for a protein shot that would deliver on:



**Protein**

**High quality profile**



**Price**

**Be cost effective**



**Taste**

**Be well tolerated**

**What did we discover?**  
**Current protein shots fail to meet  
Leucine and EAA thresholds  
required for MPS.**



# What does the science show?

- Evidence shows 2–4g Leucine and ~10g EAAs are required to trigger & sustain muscle protein synthesis in young and older adults.

(See References Page: 1,2,3,4)

- Protein shots available in the UK only provide around half of that required amount per 60ml serving.

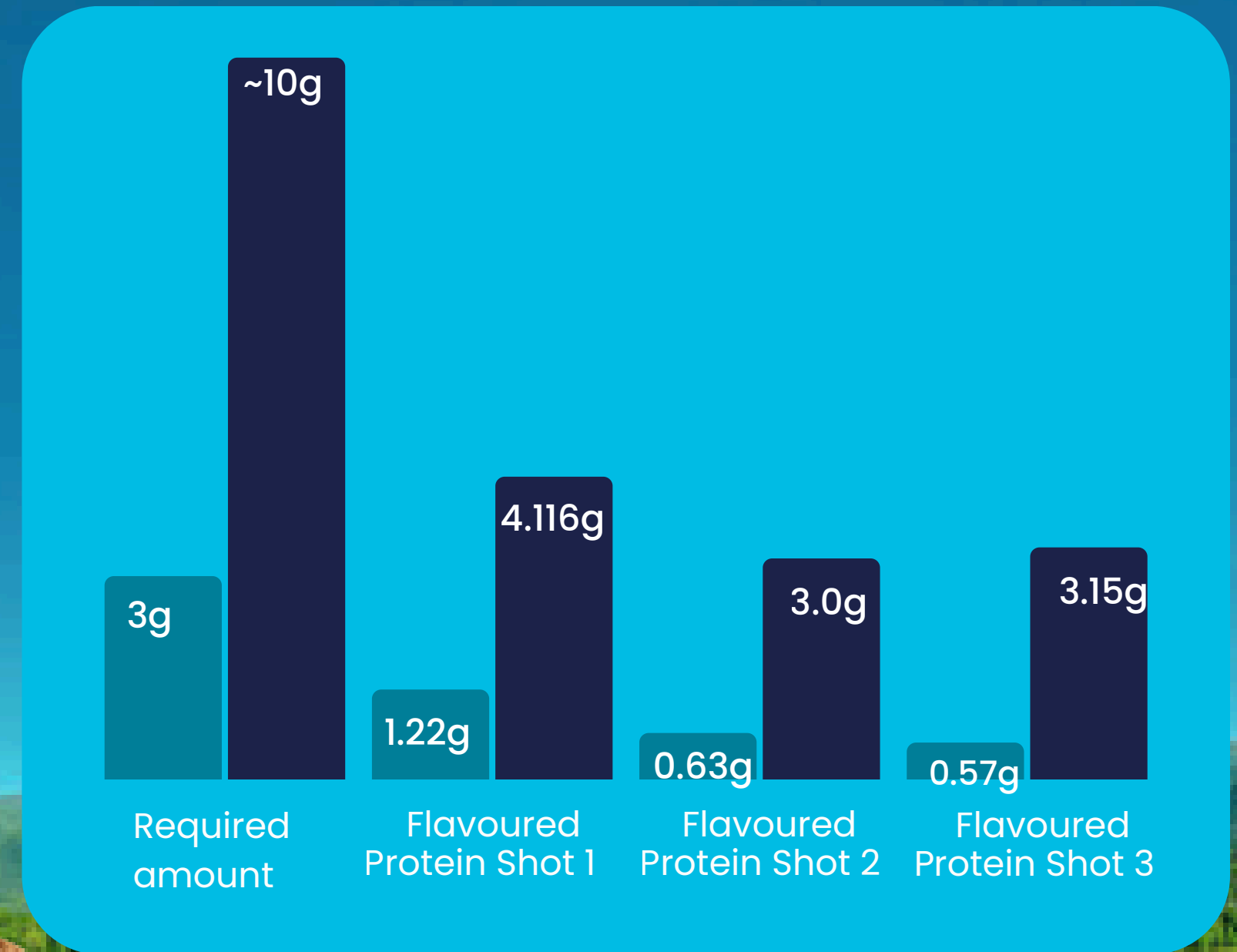
(Reference: Renapro Shot, Aymes Actagain Shot & Prosource 20)

- Anabolic resistance in older and unwell adults increases the need for higher quality, leucine-rich protein to achieve the same muscle protein synthesis response.

(See References Page: 1,2,3,4)

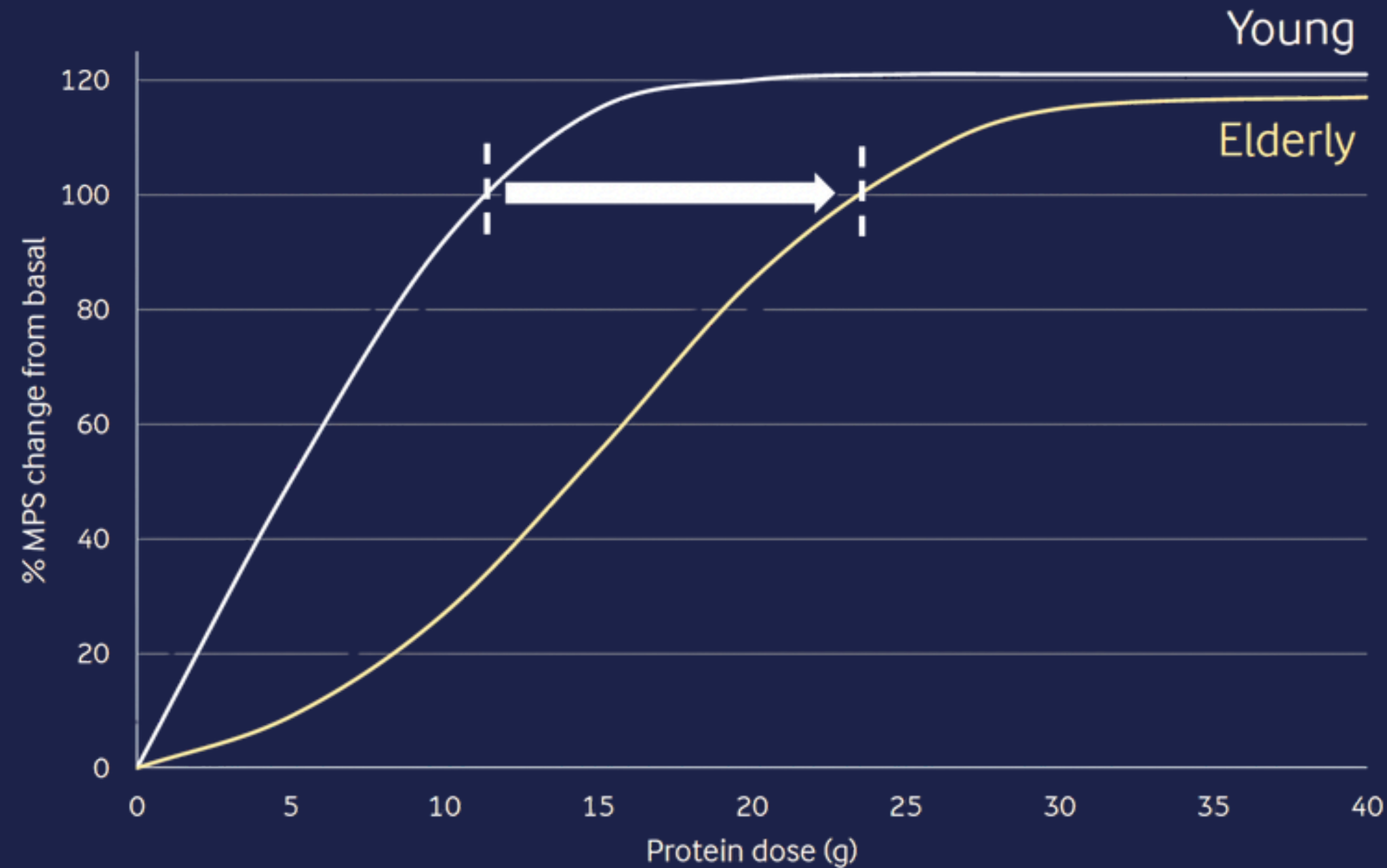
Leucine Content per 60ml Serving

Total EAAs per 60ml Serving



# Overcoming Anabolic Resistance in the Elderly

Older adults require higher quality, leucine rich protein to achieve the same anabolic response



In elderly patients, a larger protein dosage is required to overcome an increase in anabolic resistance.



Higher quantity & quality protein intake, rich in leucine & essential amino acids, is important to effectively stimulate muscle protein synthesis (MPS).

Reference: Adapted from Bree and Phillips. Nutr. & Metab. 2011

**So Nualtra went on a mission to discover  
the ultimate protein...**



# Beta-Lactoglobulin (BLG)

- ✓ The most abundant protein in Whey.
- ✓ Rich in all 9 Essential Amino Acids,
- ✓ BLG is especially high in Leucine; but low in po4 and k.
- ✓ Rapidly absorbed and digested.



# Altrapro

## High protein, Low volume Shot

- ✓ A ready-to-drink, shot-style ONS providing 20g protein per serving.
- ✓ Made with pure Beta-Lactoglobulin (BLG).
- ✓ Delivers 2.8g leucine and 9.8g EAAs per serving, levels associated with triggering muscle protein synthesis.
- ✓ Altrapro has more than double the EAA and Leucine content of competitor protein shots available on the market.



18  
Amino  
Acids

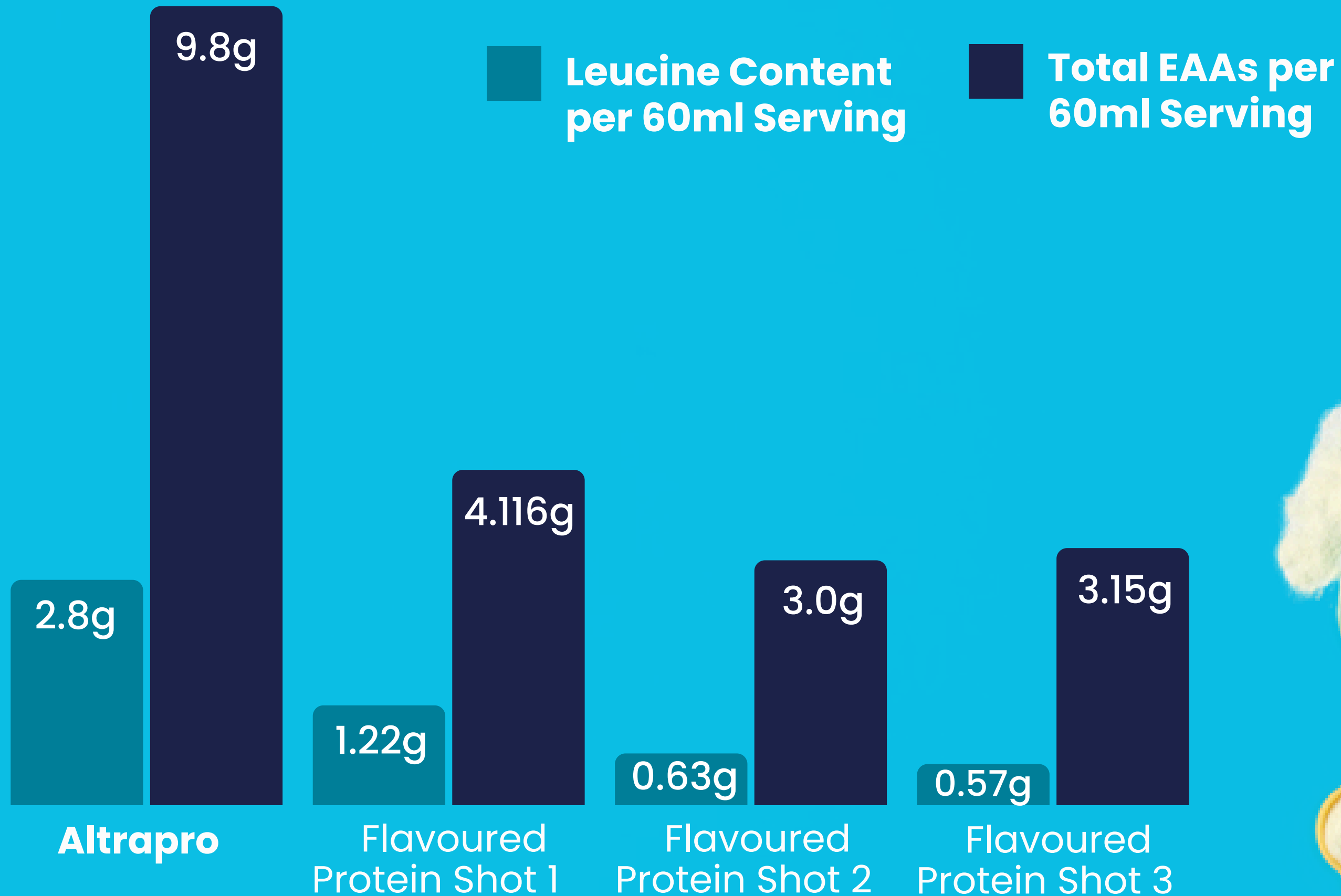
81 kcal  
in 60ml

2  
Flavours

20g  
Protein



# Altrapro vs Other Protein Shots

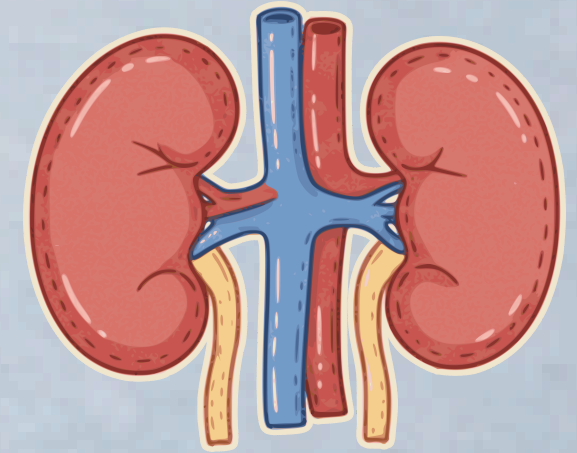


(Reference: Altrapro, Renapro Shot, Aymes Actagain Shot & Prosource 20 Datasheets)  
Not including HMB fortified flavoured protein shots.

# Altrapro is Renal Friendly!



- ✓ Altrapro is low in electrolytes, making it suitable for patients with renal disease.
- ✓ The low volume shot (60mls) makes it suitable for patients on fluid restrictions and/or dialysis.
- ✓ The K and po4 levels are comparable to competitor renal protein shots. For context, a 200ml glass of milk contains ~200mg phosphate, while typical renal phosphate limits are ~800mg per day or more.
- ✓ Any absolute difference in electrolyte content is clinically negligible and equivalent to only a few sips of milk.
- ✓ In the same 60ml volume as competitors, Altrapro delivers over double the Leucine and Essential Amino Acids, providing a higher quality protein option without increasing fluid burden.



Brand	Potassium per serving	Phosphate per serving
AltraPro	16.6mg	5.15mg
Renapro Shot	12mg	1.6mg
AYMES ActaGain Protein Shot	27.5mg	0mg



# Altrapro



## DATASHEET January 2026

Altrapro is a Food for Special Medical Purposes. Low volume oral nutritional supplement.

- Ready to drink protein supplement with added sweetener.
- Not suitable as a sole source of nutrition. May be used to supplement a patient's dietary intake.
- Available in 60ml bottles (15 x 60ml)

**Flavours:** Available in Berry, Lemon & Lime Flavours.

**Allergen information:** Contains milk protein. Gluten free and lactose free.

**Religious/Dietary Information:** Not suitable for vegans. Suitable for vegetarians. Halal certified.

**Indications:** For enteral use only. Must be used under medical supervision. May be used for the dietary management of patients with or at risk of developing disease related malnutrition as determined by appropriate nutritional screening.

**Contraindications:** Not suitable for children under 3 years. Not suitable for patients with Galactosaemia or in patients with cow's milk protein allergy.

**Precautions:** Not suitable for use in children under 3 years and use of this

product in children under 6 years should be closely monitored by a dietitian or clinician.

**Directions for use:** Ready to drink. Use as directed by a clinician. Altrapro can be consumed chilled or at room temperature.

✦ Shake well before use.

**Storage (unopened):** Store in a cool, dry place, away from direct sunlight.

**Storage (opened):** Once opened consume within 4 hours or stored in a refrigerator for up to 24 hours. Discard unused contents after 24 hours.

**Shelf life:** 15 months. See side of bottle and outer packaging for best before date.

**Made in EU**

This product is packaged in a protective atmosphere.

### INGREDIENTS:

**BERRY & LIME:** Water, Beta-xyloglucan (E1412) (1%), Acidity Regulators: Citric Acid, Malic Acid, Potassium Citrate, Potassium Sorbate, Sodium Benzoate, Sweetener: Sucralose.

**LEMON & LIME:** Water, Beta-xyloglucan (E1412) (1%), Acidity Regulators: Citric Acid, Malic Acid, Potassium Citrate, Potassium Sorbate, Sodium Benzoate, Sweetener: Sucralose.

Average content	Units	100ml	Per 60ml Bottle
Energy	kJ	574	344
	kcal	135	81
Fat	g	0	0
of which saturated	g	0	0
Carbohydrate	g	0	0
of which sugars	g	0	0
Lactose	g	0	0
Fibre	g	0	0
Protein	g	33	20
Salt	g	0.07	0.04
<b>AMINO ACIDS</b>			
Alanine	g	2.0	1.2
Arginine	g	0.76	0.45
Aspartate	g	3.3	2.0
Cysteine	g	0.80	0.01
Glutamate	g	5.7	3.4
Glycine	g	0.40	0.24
Histidine	g	0.40	0.24
Isoleucine	g	1.8	1.1
Leucine	g	4.4	2.6
Lysine	g	3.3	2.0
Methionine	g	0.97	0.58
Phenylalanine	g	1.1	0.65
Proline	g	1.6	0.97
Serine	g	1.1	0.68
Threonine	g	1.3	0.80
Tryptophan	g	0.62	0.37
Tyrosine	g	1.1	0.68
Valine	g	1.8	1.1
<b>MINERALS</b>			
Sodium	mmol	1.15	0.69
	mg	27	16
Potassium	mmol	0.70	0.42
	mg	27.4	16.4
Chloride	mmol	1.80	1.10
	mg	66.0	39.6
Calcium	mmol	0.20	0.12
	mg	8.0	4.8
Phosphorus	mmol	0.28	0.17
	mg	8.8	5.3
Magnesium	mmol	0.04	0.02
	mg	1.64	0.98
<b>OTHER</b>			
Water content	ml	62	37
Residual non-volatile food	mg/100ml	1950	
Osmolality	mg/100ml	186	
Conductivity	mg/100ml/1000	202	

Altrapro is lactose & gluten free and is suitable for vegetarians. It is not suitable for vegans as it contains milk protein. Halal Certified.

Altrapro contains 18 Amino Acids in total, including the 9 essential.

Phosphorous content is 5.15mg and Potassium is 16.6mg per 60ml bottle.

Altrapro has 0g Carbohydrates and 0g Sugar.

Altrapro is not suitable as a sole source of nutrition, but may be used to supplement a patient's dietary intake.

# Cost Comparison

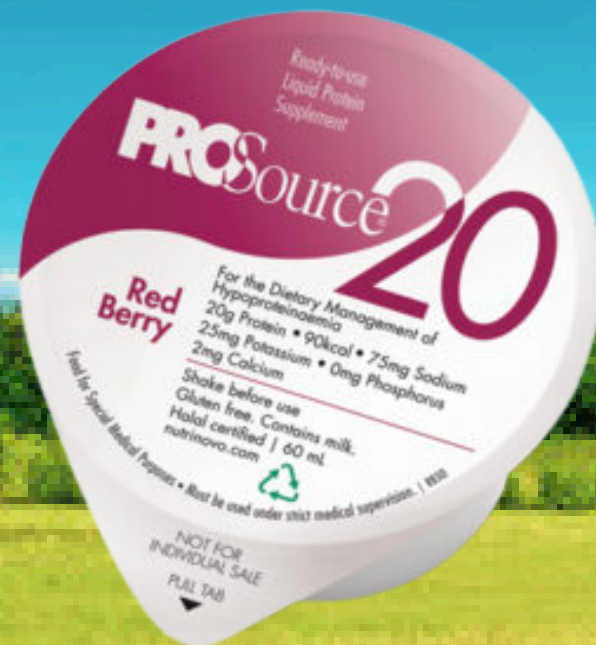
## Competitor products v Altrapro

Altrapro could provide cost savings for your area and provides double

£2.32  
per 60ml



£2.32  
per 60ml



£1.75  
per 60ml



£1.75 / £1.40  
per 60ml



SAMPLE SERVICE

# Order HCP or Direct-to-patient samples at [nualtra.com](https://nualtra.com)



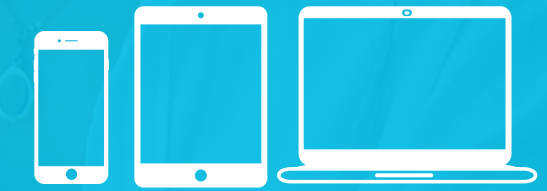
**Next day delivery**



**Fast & simple process**



**Full range of starter packs**



**Available across all platforms**



[nualtra.com/get-samples](https://nualtra.com/get-samples)



# References

1

Zaromskyte, G., Prokopidis, K., Ioannidis, T., Tipton, K.D. and Witard, O.C., 2021. Evaluating the leucine trigger hypothesis to explain the post-prandial regulation of muscle protein synthesis in young and older adults: a systematic review. *Frontiers in Nutrition*, 8, p.685165. <https://doi.org/10.3389/fnut.2021.685165>

2

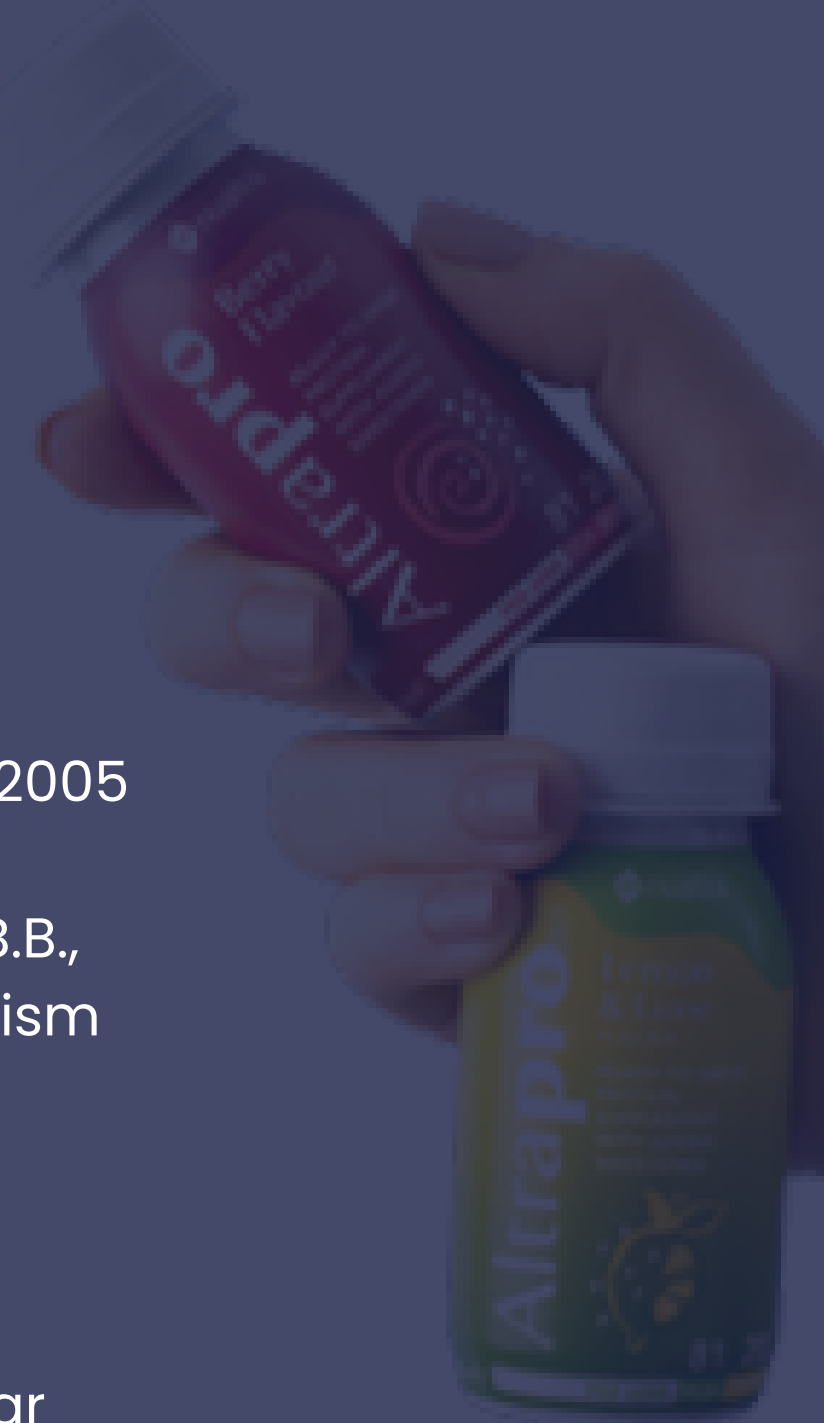
Katsanos, C.S., Kobayashi, H., Sheffield-Moore, M., Aarsland, A. and Wolfe, R.R., 2006. A high proportion of leucine is required for optimal stimulation of the rate of muscle protein synthesis by essential amino acids in the elderly. *American Journal of Physiology – Endocrinology and Metabolism*, 291(2), pp.E381-E387. <https://doi.org/10.1152/ajpendo.00488.2005>

3

Glynn, E.L., Fry, C.S., Drummond, M.J., Timmerman, K.L., Dhanani, S., Volpi, E. and Rasmussen, B.B., 2010. Excess leucine intake enhances muscle anabolic signaling but not net protein anabolism in young men and women. *Journal of Nutrition*, 140(11), pp.1970-1976. <https://doi.org/10.3945/jn.110.127647>

4

Plotkin, D.L., Delcastillo, K., Van Every, D.W., Tipton, K.D., Aragon, A.A. & Schoenfeld, B.J., 2021. 'Isolated leucine and branched-chain amino acid supplementation for enhancing muscular strength and hypertrophy: a narrative review'. *International Journal of Sport Nutrition and Exercise Metabolism*, 31(3), pp.292–301. <https://doi.org/10.1123/ijsnem.2020-0356>



# References

1

Zaromskyte et al. 2021

Systematic review showing leucine plays a key role in stimulating muscle protein synthesis, particularly in older adults with anabolic resistance.

Outcomes measured: Muscle protein synthesis using stable isotope tracer methods.

Strengths & limitations: High quality synthesis of human studies; focuses on short term MPS rather than long term muscle mass. Included exercise and non-exercise.

2

Katsanos et al. 2006: Randomised controlled acute human feeding study. Mechanistic tracer study.

Demonstrated that a higher proportion of leucine within essential amino acids restores muscle protein synthesis in older adults.

Outcomes measured: Direct muscle protein synthesis via isotope labelled amino acids and muscle biopsies.

Strengths & limitations: Gold standard MPS measurement; acute study with small sample size. Pure nutrition driven MPS response. Exercise deliberately excluded.

3

Glynn et al. 2010: Randomised controlled acute human feeding study. Mechanistic signalling and MPS study

Showed that extra leucine enhances anabolic signalling but does not further increase muscle protein synthesis when protein intake is sufficient. This challenges claims that adding leucine derivatives such as HMB can increase MPS in formulations that do not provide adequate EAAs.

Outcomes measured: Muscle protein synthesis and anabolic signalling pathways.

Strengths & limitations: Clarifies signalling vs synthesis; conducted in young healthy adults. Exercise excluded.

4

Plotkin et al. 2021: Narrative Review concluding that isolated leucine or BCAA supplementation alone does not improve muscle strength or hypertrophy without adequate total protein.

Outcomes measured: Lean mass and strength outcomes from intervention studies. This challenges claims that adding leucine derivatives such as HMB can increase MPS in formulations that do not provide adequate EAAs / total protein.

Strengths & limitations: Clinically relevant outcomes; narrative review with variable study quality – not systematic.

