ISOlution®

Clinical Summary

ISOlution® is an unflavoured, clinical grade whey protein isolate powder used for food fortification and/or protein flushing for patients requiring enteral nutrition. ISOlution® is used to meet the high protein requirements of aging populations and those with chronic disease or critical illness.

ISOlution® has exceptional taste and texture while delivering a market-leading amino acid profile.

ISOlution® Highlights

More Protein

Concentrated source of protein.

Each 10 g serving provides 10 g of high-quality protein meaning every gram of product works towards stimulating muscle protein synthesis.

Better Protein

Elevated leucine.

ISOlution® contains 1.4 g leucine / serving. Leucine is an essential amino acid that acts as a trigger for muscle protein synthesis, counteracting muscle loss.

Increased Compliance

Clean, neutral taste.

The simple ingredients and unflavoured taste profile of ISOlution® makes it ideal for use in a variety of savoury or sweet-tasting foods and beverages, helping increase adherence.

Product Features

- DIAAS: 1.09 / PDCAAS: 1.00
- Excellent dissolvability. Quickly dissolves in water helping to prevent clogged enteral feeding tubes.
- Trace lactose: Compared to other whey isolates or whey concentrates, ISOlution® is low in lactose and fat, making it easier to digest.[1]
- Made with New Zealand dairy from grass-fed cows
- No additives, sweeteners or artificial flavours
- Soy-free

Why use ISOlution®?

More Protein

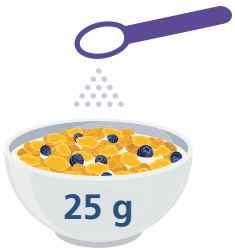
Elevated Protein Requirements

Older adults and those living with acute or chronic disease, recovering from surgery, or in critical care have higher protein needs. These individuals require up to 2.0 g / kg body weight / day to combat age and stress-related loss of muscle mass and strength.[2]

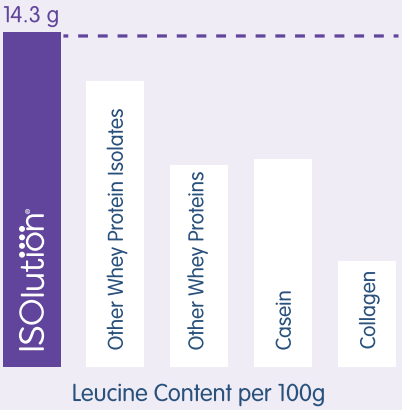
To maximize muscle protein synthesis (MPS) and reduce muscle protein breakdown (MPB), it's recommended that dietary plans include 25-30 g of high-quality protein per meal.[2,5] ISOlution® can easily be incorporated into meals to help patients with low appetites meet their protein needs. ISOlution® can also be used as a protein flush for patients requiring enteral nutrition, providing at least 10 g of protein per flush.

without ISOlution®
15 g of protein

vs.



with ISOlution®
25 g of protein



Better Protein

Leucine Metabolism

Leucine has been shown to enhance the anabolic effect of protein by triggering muscle protein synthesis. Research suggests this leucine threshold is 2.5-2.8 g per meal.[2]

One 10 g serving of ISOlution® provides more than half of the leucine necessary for muscle protein synthesis (1.43 g) and has a higher leucine content than other proteins.[4, 5, 6]

Increased Compliance

Food Fortification

ISOlution® is extracted using ion-exchange technology, which results in a neutral-tasting and extremely soluble end-product that can mix easily into a variety of foods and beverages. No "after-taste" or grittiness!

The functionality of ISOlution® helps patients consume more protein in smaller volumes and supports a food-first mentality. Patients can overcome feeding and limited appetite challenges by incorporating ISOlution® into several foods and drinks they enjoy.

Mix ISOlution® into mashed potatoes, juice, coffee, soup, smoothies, pancakes and more!

How to use ISOlution®

Orally

Stir one serving of ISOlution® into at least ½ cup (125 mL) of liquid or soft foods, or as directed. For best results: Liquid first, then protein.

- ISOlution® dissolves easily into liquids and beverages without leaving a gritty texture.
- ISOlution® contains less lactose than leading brands to reduce gastrointestinal discomfort.

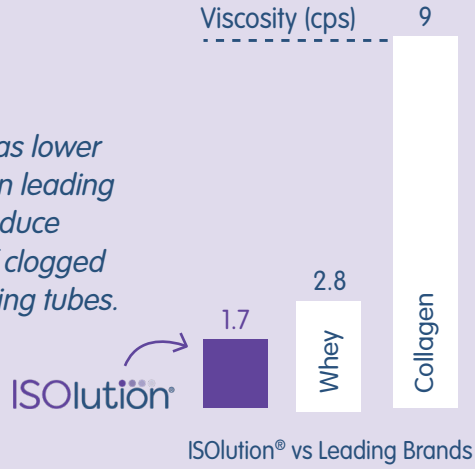
Note: ISOlution® starts to denature at 149 °F / 65 °C. For this reason, mix into foods (i.e. soup) or beverages (i.e. coffee) below this temperature to ensure the protein does not change texture.

Tube Feeding

Mix one to three servings of ISOlution® into 60-120 mL of water. Stir until completely dissolved. Flush tube with 30-60 mL of water. Administer ISOlution® and water mixture into feeding tube via syringe. Flush tube with another 30-60 mL of water.

ISOlution® Servings	Water (mL)	Osmolality (mOsm/kgH20)
1 (10.4 g)	60 mL	42
1 (10.4 g)	120 mL	19
2 (20.8 g)	120 mL	45
3 (31.2 g)	120 mL	71

ISOlution® has lower viscosity than leading brands to reduce incidence of clogged enteral feeding tubes.



ISOlution® vs Leading Brands

DID YOU KNOW?

Not all proteins are made equal. Although collagen and casein are often used in clinical settings, whey protein is the gold standard for stimulating muscle protein synthesis due to its remarkable essential amino acid profile.[3,7]

Nutrition Facts
Valeur nutritive
Serving Size (10 g)
pour 1 conteneur (10 g)

		% Daily Value / % valeur quotidienne
Calories	**40**	
Fat / Lipides	0 g	0 %
Saturated / saturés	0 g	0 %
+ Trans / trans	0 g	
Carbohydrate / Glucides	0 g	
Fibre / Fibres	0 g	0 %
Sugars / Sucres	0 g	0 %
Protein / Protéines	10 g	
Cholesterol / Cholestérol	0 mg	
Sodium	60 mg	3 %
Potassium	0 mg	0 %
Calcium	0 mg	0 %
Iron / Fer	0 mg	0 %

*5% or less is **a little**, 15% or more is **a lot**
*15% ou moins c'est **peu**, 15% ou plus c'est **beaucoup**

Essential Amino Acid content per 10 g/ISOlution®	
Isoleucine	0.63 g
Leucine	1.43 g
Lysine	1.12 g
Methionine	0.24 g
Phenylalanine	0.38 g
Threonine	0.53 g
Tryptophan	0.24 g
Valine	0.56 g

Mineral content per 10 g/ISOlution®	
Sodium	56 mg
Potassium	3.3 mg
Inorganic Phosphate	11.9 mg
Total Phosphorous	3.6 mg
Calcium	7.6 mg

Ingredients: whey protein isolate, sunflower lecithin

ISOlution® Additional Information

ISOlution® Protein Source

- ISOlution® is sourced from New Zealand milk, where the cows are able to graze the grass all year round.
- Cows are pasture-raised and grass-fed.
- ISOlution® is traceable from farm to table to achieve the highest standards for food quality and safety.

Precautions

- Contains milk and dairy products (trace lactose: 0.03 g / serving).
- ISOlution® is not nutritionally complete and should not be used as a sole source of nutrition.

Contraindications

- Not suitable for those with galactosemia.
- Not suitable for children under the age of 3.
- Not for parenteral use.

References:

1. Hoffman, J. R., & Falvo, M. J. (2004). Protein–which is best?. *Journal of sports science & medicine*, 3(3), 118.
2. Bauer, J., Biolo, G., Cederholm, T., Cesari, M., Cruz-Jentoft, A. J., Morley, J. E., ... & Boirie, Y. (2013). Evidence-based recommendations for optimal dietary protein intake in older people: a position paper from the PROT-AGE Study Group. *Journal of the american Medical Directors association*, 14(8), 542-559.
3. Oikawa, S. Y., Kamal, M. J., Webb, E. K., McGlory, C., Baker, S. K., & Phillips, S. M. (2020). Whey protein but not collagen peptides stimulate acute and longer-term muscle protein synthesis with and without resistance exercise in healthy older women: A randomized controlled trial. *The American journal of clinical nutrition*, 111(3), 708-718.
4. Oikawa, S. Y., McGlory, C., D'Souza, L. K., Morgan, A. K., Saddler, N. I., Baker, S. K., ... & Phillips, S. M. (2018). A randomized controlled trial of the impact of protein supplementation on leg lean mass and integrated muscle protein synthesis during inactivity and energy restriction in older persons. *The American journal of clinical nutrition*, 108(5), 1060-1068.
5. Gorissen, S., Crombag, J., Senden, J., Waterval, W., Bierau, J., Verdijk, L. B., & van Loon, L. (2018). Protein content and amino acid composition of commercially available plant-based protein isolates. *Amino acids*, 50(12), 1685–1695. https://doi.org/10.1007/s00726-018-2640-5
6. Hulmi, J. J., Lockwood, C. M., & Stout, J. R. (2010). Effect of protein/essential amino acids and resistance training on skeletal muscle hypertrophy: A case for whey protein. *Nutrition & metabolism*, 7(1), 1-11.
7. Devries, M. C., & Phillips, S. M. (2015). Supplemental protein in support of muscle mass and health: advantage whey. *Journal of food science*, 80(S1), A8-A15.

Enhanced Medical Nutrition

Enhanced Medical Nutrition ("EMN") builds clinical nutrition products to help patients prepare better and recover faster from critical illness and surgery. These products are powders reconstituted in water and taken by mouth or via tube feed to improve outcomes and reduce costs.

Implementing ISOlution®

EMN is dedicated to supporting the individual needs of every facility. We work with your food service department and clinical teams to implement ISOlution® with the technology you have available. EMN collaborates with your food service department to create high-protein recipes your patients will love. We also support your clinical team with education, onboarding, free samples and handouts for patients.

EMN is a leader in clinical research and is passionate about improving outcomes in diverse patient populations as it relates to protein metabolism. Please contact us for more information about our research.

EMN

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