

# New Zealand Whey Protein Isolate

Supports Muscle Maintenance and Recovery\*



Available in 30 servings

## Discussion

New Zealand Whey Protein Isolate contains whey protein derived from the milk of cows that graze on pesticide- and chemical-free, non-GMO pasture in New Zealand. This instantized protein isolate is formulated with sunflower lecithin to allow it to rapidly disperse in solution. When combined with water, New Zealand Whey Protein Isolate is an ideal choice for boosting dietary protein intake while hydrating.

Whey and casein are by-products of cheese production. Whey is the thin, watery substance that separates from the solid casein curd during the cheese-making process. The proteins in whey are separated from the liquid, processed to remove fat and lactose, and eventually spray-dried into varying concentrations of protein powder. The highest concentrate is whey protein isolate (WPI), which typically yields 90% protein. Because of the removal of fat and lactose, the isolates are absorbed rapidly and are generally well-tolerated. Whey isolate is very soluble in water and has a clean, neutral flavor.

The overall quality of protein is determined by its essential amino acid composition, digestibility, and bioavailability. Whey protein is one of the highest-rated proteins with a naturally occurring high concentration of the branched-chain amino acids (BCAAs) leucine, isoleucine, and valine, which all play a role in the impact of whey protein on muscle maintenance and recovery.\*<sup>[1-3]</sup>

A 2015 review supports increasing protein intake to help regulate muscle mass and body composition in response to resistance training, caloric restriction, and age-related sarcopenia. The authors emphasized whey as the optimal protein source for supporting muscle protein synthesis both at rest and following resistance exercise.\*<sup>[1]</sup>

### Muscle Maintenance and Recovery

As a high-quality source of protein that is rich in all of the essential amino acids including BCAAs, whey is known to enhance muscle protein synthesis after exercise and to accelerate recovery. A meta-analysis of 13 randomized controlled trials investigated the role of

## Clinical Applications

- » Supports Healthy Muscle Recovery After Exercise\*
- » Promotes Lean Body Mass When Combined with Resistance Training\*
- » Supports Muscle Maintenance and Post-workout Recovery\*

*New Zealand Whey Protein Isolate features concentrated whey protein derived from the milk of grass-fed New Zealand dairy cows. This versatile isolate rapidly disperses in water and provides a high-quality source of easily digested protein, making it an optimal choice for supporting muscle maintenance and recovery.\**

whey protein supplementation as an effective nutritional strategy for restoring contractile function loss that occurs after resistance training in healthy adults. Whey protein supplementation had a positive effect when compared to control treatments.\*<sup>[4]</sup>

In a meta-analysis of 22 clinical trials, subjects (n = 680) were administered sources of protein including whey, casein, milk, soy, essential amino acids, egg, dairy, and meat in combination and individually (12 studies used whey). The doses ranged from six to 106 g of protein daily for six to 24 weeks in a population of varying age groups. When the data were combined, protein supplementation showed a significantly positive effect on fat-free mass compared to placebo suggesting that supplemental protein intake boosts muscle mass and strength gains during resistance exercise in younger and older adults.\*<sup>[5]</sup>

In a randomized study investigating the effect of high-quality whey protein supplementation before and after resistance training in healthy subjects (n = 38), participants in the protein group were administered 15 g of WPI immediately prior to and after resistance-training exercise twice per week for 21 weeks. Body mass and the cross-sectional area of the quadriceps muscle increased significantly in the protein group compared to the control group. Isometric leg extension force also significantly increased in the protein group compared to the control group. Overall, these results indicated that whey protein supplementation—before and after exercise—can augment muscle growth in individuals without prior resistance-training experience.\*<sup>[2]</sup>

A prospective parallel study compared the effects of whey protein (n = 19), soy protein (n = 22), and carbohydrates (n = 22) on lean body mass and body composition in healthy men and women aged 18-35 over a nine-month period. Daily supplementation with 20 g of whey protein during resistance training resulted in gains in lean body mass and positive correlations between plasma leucine

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concentrations and the response. The authors suggested that protein quality may be an important determinant of the body's adaptive response to resistance training.\*<sup>[3]</sup>

A meta-analysis of 14 randomized controlled trials in adult men and women (n = 626) indicated that whey protein combined with resistance exercise or as part of a weight-maintenance diet improved body composition. When researchers analyzed studies using whey protein to replace calories in the diet, participants lost an average of 9.2 lb compared to baseline values. Muscle protein synthesis studies that included resistance exercise in combination with whey protein consumption were also analyzed. Participants showed a statistically significant increase of 4.9 lb in lean body mass on average. The beneficial effects of whey protein on body composition were most pronounced when supplementation was combined with resistance exercise and an overall healthy diet. Further study exploring the optimal dosage, type, and frequency of resistance exercise was recommended by the authors.\*<sup>[6]</sup>

In a position statement, the International Society of Sports Nutrition reviewed studies using incremental doses of whey protein (0, 10, 20 and 40 g).<sup>[7]</sup> In the first study, healthy young adult men (n = 48) who regularly engaged in recreational resistance training showed optimal muscle protein synthesis rates with a 20 g dose.<sup>[8]</sup> In another study, elderly men (n = 37) who consumed incremental doses in combination with a single bout of lower-body resistance exercises gained the most benefit from a 40 g dose.<sup>[9]</sup> The data suggested that exercised muscle in older adults responds to higher protein doses compared to doses that are efficacious for younger adults. The authors of the position statement concluded that while studies such as these offer indications of general dosing recommendations, such recommendations pertaining to the optimal dose needed for enhanced muscle protein synthesis are multifactorial and dependent on age, recent exercise stimuli, and protein quality.\*<sup>[7]</sup>

## References

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Additional references available upon request

### New Zealand Whey Protein Isolate Supplement Facts

Serving Size: 1 Scoop  
Servings Per Container: About 30

|             | Amount Per Serving | %Daily Value |
|-------------|--------------------|--------------|
| Calories    | 70                 |              |
| Cholesterol | 5 mg               | 2%           |
| Protein     | 15 g               |              |
| Sodium      | 95 mg              | 4%           |

**Other Ingredients:** Whey protein isolate and sunflower lecithin.  
**Contains:** Milk.

**DIRECTIONS:** Blend, shake, or briskly stir one level scoop into 8 oz of cool water and consume twice daily, or use as directed by your healthcare professional.

Consult your healthcare professional prior to use. Individuals taking medication should discuss potential interactions with their healthcare professional. Do not use if tamper seal is damaged.

**STORAGE:** Keep closed in a cool, dry place out of reach of children.

**FORMULATED TO EXCLUDE:** Wheat, gluten, corn, yeast, soy, fish, shellfish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, and artificial preservatives.

Typical Amino Acid Profile Per Serving:

|               |          |               |          |
|---------------|----------|---------------|----------|
| Alanine       | 855 mg   | Lysine        | 1,680 mg |
| Arginine      | 450 mg   | Methionine    | 360 mg   |
| Aspartic Acid | 1,875 mg | Phenylalanine | 570 mg   |
| Cysteine      | 600 mg   | Proline       | 675 mg   |
| Glutamic Acid | 2,640 mg | Serine        | 675 mg   |
| Glycine       | 270 mg   | Threonine     | 795 mg   |
| Histidine     | 300 mg   | Tryptophan    | 360 mg   |
| Isoleucine    | 945 mg   | Tyrosine      | 630 mg   |
| Leucine       | 2,145 mg | Valine        | 840 mg   |

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\*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

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