

# Klean Recovery™

NPN 80048124

## DESCRIPTION

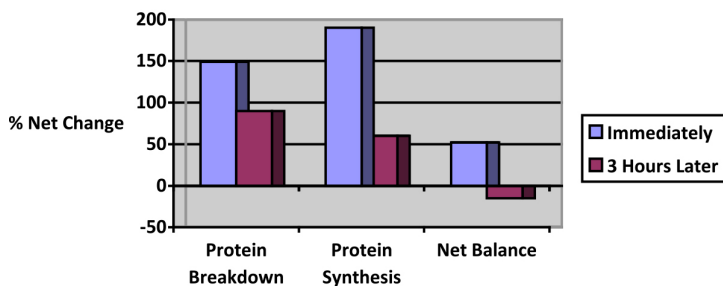
Klean Recovery™ by Klean Athlete® is a delicious, milk chocolate-flavoured powder formulated with the athlete’s recovery in mind. A 4:1 ratio of carbohydrates to protein helps support optimal energy production and muscle protein synthesis immediately after a workout or competition. In addition to whey protein, Klean Recovery™ contains a special hydrolyzed marine protein that is quickly and efficiently absorbed, and is rich in amino acids that are crucial to muscle building.

Klean Recovery™ is tested and certified by the NSF Certified for Sport® program, which was created to meet the growing demands of athletes, coaches and healthcare professionals to certify that sports supplements are safe and completely free from banned substances. Every product that carries the NSF Certified for Sport® mark has undergone stringent laboratory testing to confirm content, purity and compliance.

## FUNCTIONS

Nutrient timing is crucial to an athlete’s recovery and muscle tissue repair following high-volume and endurance or resistance exercise. The goal is to enhance muscle protein synthesis, resulting in positive net protein balance. After intense prolonged exercise, body stores of glycogen are depleted and muscle tissue begins to breakdown. Research suggests that when an athlete is glycogen-depleted after exercise, a carbohydrate intake of 0.6 –1.0 g CHO/kg during the first 30 minutes, and again every two hours for four to six hours thereafter, may adequately replace glycogen stores that have been depleted in both the muscle and liver. Post-exercise, muscles move from the catabolic mode to the critical anabolic phase. Nutrients, particularly carbohydrate and protein, support the anabolic phase. Certain carbohydrates like dextrose and fructose are excellent choices, given their rapid absorption and utilization.

The International Society of Sports Nutrition’s position on nutrient timing suggests that a carbohydrate-to-protein ratio of 3 – 4:1 may increase endurance performance and maximally promote glycogen re-synthesis during acute and subsequent bouts of endurance exercise. Glycogen serves as the primary energy store in skeletal muscle and becomes the main energy source during high-intensity exercise. The results of several studies in animals and humans suggest that post-exercise muscle glycogen storage can be enhanced with a carbohydrate-protein supplement. Amino acids are important for muscle protein synthesis, which was shown to be three times greater with a carbohydrate-protein supplement immediately after exercise than three hours later:



Effect of Delay on Net Protein Balance (Adapted from Levenhagen et al.)

Protein sources may be an important consideration in this area, as studies have suggested that whey protein may exhibit a faster kinetic digestive pattern when compared to casein protein. Whey protein is rapidly absorbed and contains the essential amino acids, including BCAAs. Whey protein isolate contains very low lactose and fat content, making it more tolerable for some individuals. Marine proteins are a unique source of amino acids, rich in methionine, histidine and arginine. Klean Recovery™ uses a special Norwegian salmon protein isolate that is extracted through a natural process, preserving functional and nutritional properties. It is then hydrolyzed, so that it contains oligopeptides and peptides with a low molecular weight to allow for faster nitrogen assimilation in the body than that of whey protein. This allows for greater amounts of amino acids to be absorbed when compared with other protein sources. As the hydrolyzed salmon protein has a neutral taste and smell, it does not adversely affect Klean Recovery’s™ delicious milk chocolate flavour.

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**INDICATIONS**

Muscle recovery  
 Performance maintenance  
 Endurance during high-intensity exercise

**FORMULA (#KA57633P-1138)**

Each scoop (56.9 g) provides:

Whey Protein Isolate ( <i>Bos taurus</i> - Milk).....	6.7 g
(Whey Protein 5.72 g)	
Fish Protein Hydrolysate ( <i>Salmo salar</i> - Meat) .....	4.5 g
Dextrose (D-Glucose) .....	20 g
D-Fructose .....	20 g

Non-medicinal ingredients: Cocoa powder, natural chocolate flavour, natural hazelnut flavour, natural masker flavour.

**SUGGESTED USAGE**

Adults, take one scoop daily by mixing well in 1-2 cups of liquid (water, juice, etc.) immediately before consumption. Consume no later than 90 minutes after exercise or competition, or as directed by a healthcare practitioner.

**RISK INFORMATION**

If you are pregnant or breastfeeding, consult a healthcare practitioner before using this product. Ensure to adequately hydrate before, during, and after exercise. This product contains milk by-products/derivatives.

**REFERENCES**

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For more information on Klean Recovery™, visit [kleanathlete.ca](http://kleanathlete.ca)

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