



PeptoPro®

The performance peptide



What is PeptoPro®

PeptoPro® is a highly advanced peptide formulation derived from dairy protein. It contains all 20 amino acids needed for muscle protein synthesis. PeptoPro® delivers amino acids in the form of di-peptides and tri-peptides. These molecules are so small that they need no digestion and can be absorbed by the body rapidly and are designed for instant delivery to the muscle.

PeptoPro® is virtually lactose- and fat-free. Due to its unique processing properties, PeptoPro® is instantly and completely soluble, even in cold water.

Nutrient timing

Efficient delivery of amino acids to the muscle is of particular importance during and directly after intense physical activity as the requirement of the muscle is the highest during those times. However, during intense exercise, the body's digestive capacity is dramatically reduced due to limited blood flow (cardiac output) through the digestive organs (figure 1).

Because the amino acids from PeptoPro® can be absorbed without the need for digestion, instant delivery to the muscles is guaranteed, even when the digestive system is compromised. By contrast, intact protein or larger peptides need to be digested into

smaller molecules first, and are therefore stuck in the digestive system for longer periods, compromising performance (figure 2).

Figure 1

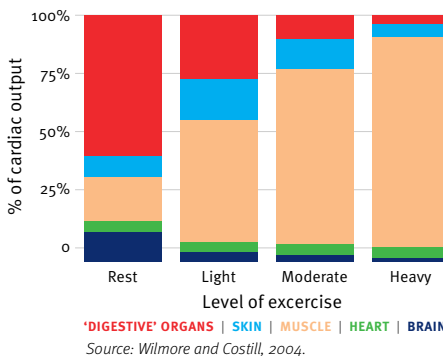
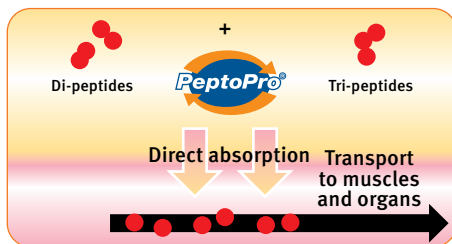
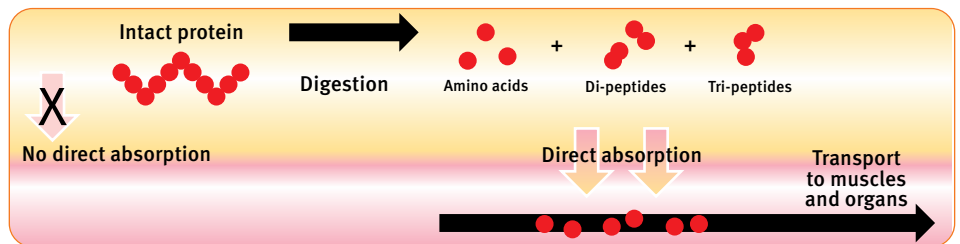


Figure 2

How PeptoPro® reaches the muscles and organs



How intact protein reaches the muscles and organs



- Instant delivery of amino acids to the muscles, even during high intensity exercise
- Boosts muscle protein synthesis during and after exercise
- Enhances physical performance, endurance and stamina
- Accelerates recovery and stimulates post-exercise insulin secretion
- Supported by multiple human studies
- Feedback from athletes: benefits of PeptoPro® are clear & noticeable
- PeptoPro® is a strong and established brand in the world of sports nutrition
- Completely and instantly soluble, even in cold water
- Natural, healthy and safe

PeptoPro®

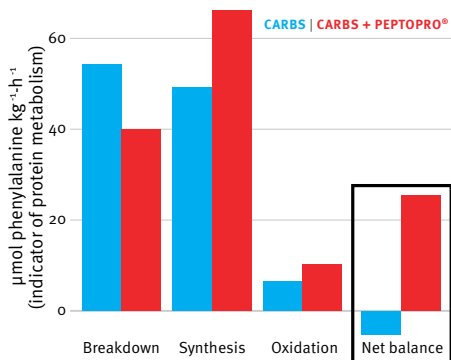
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PeptoPro® during exercise

Delivering amino acids quickly helps protect muscles during exercise and reduces muscle damage. PeptoPro® supplementation during endurance- and resistance-exercise has been shown to promote protein synthesis (anabolism) already during exercise (figure 3). When no amino acids are supplied, muscle tissue is degraded (catabolism). For instance, in the second hour of exercise, the body gets 5 – 15% of its energy from amino acids. If no amino acids are supplied during that time, the body will literally scavenge it from muscle tissue.

Figure 3: Protein metabolism during exercise

Source: Beelen et al., 2008



The net balance is the difference between synthesis and breakdown + oxidation. When PeptoPro® is consumed in addition to carbohydrates during exercise (in this case, a total of 2 hours of combined cycling and resistance exercise), the net balance of protein synthesis is positive. Without PeptoPro® the net balance is negative. This means that protein is broken down.

PeptoPro® after exercise

Efficient delivery of amino acids is very important right after exercise because there is a limited time frame, called the post-exercise “window of opportunity”, before the muscle cells’ capacity for nutrient absorption slows down. PeptoPro® kick-starts the recovery process by getting building blocks in before muscle cells ‘close the gates’. Nutrient timing is key.



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HEALTH · NUTRITION · MATERIALS

Efficacy

The efficacy of PeptoPro® has been tested in multiple human studies and has shown to:

- Increase physical performance and endurance/stamina (time to fatigue)
- Promote protein synthesis during and after exercise
- Accelerate muscle recovery and reduce DOMS (delayed onset muscle soreness)
- Increase post-exercise insulin secretion which results in faster levels of glucose uptake and glycogen resynthesis in muscle cells.

Clear & noticeable effects

In line with the results of scientific tests, a multitude of testimonials from satisfied consumers demonstrates the clear and noticeable effects of PeptoPro®. These include reduced muscle soreness and fatigue, faster recovery, increased endurance/stamina, more power and faster muscle growth.

The clear and noticeable effect is a result of the efficient and instant delivery of amino acids during and directly after intense exercise.

“I’m very happy that my athletes and I can use PeptoPro®. Training and recovery aren’t the same without it. We have used every type of protein and/or a massive dose of BCAA combination, pre-during-and post workout, and nothing comes even close to PeptoPro® for getting more out of your workout, and then recovering from those brutal sessions...”

Maximilian Longrée (professional ironman tri-athlete) December 4th 2010

The benefits of PeptoPro® have not gone unnoticed by the sporting enthusiasts around the world. It is used by many top sports teams, professional athletes and more importantly also by an evergrowing number of sports enthusiasts. Word of mouth about the benefits of PeptoPro® on internet forums has proven to be a powerful tool in spreading the word. PeptoPro® has become a recognized brand in the world of sports nutrition and is regarded as the *cutting edge* ingredient for performance nutrition.

Applications

PeptoPro® can be used to create a variety of pleasant-tasting instant powder formulations, drinks, gels and energy bars. Due to its high solubility, thirst-quenching formulations can easily be developed for different sports nutrition concepts including endurance, recovery, weight gainer or lean muscle mass gainer.

Even pure versions of PeptoPro® can be developed in different flavours that mask the typical bitterness of peptides completely – a real breakthrough in performance nutrition.

