

Fast or Slow-Release Proteins, What Should You Know?



Roles of Protein and How to Choose

Protein is made up of individual chains of amino acids that do a lot of important work on our body¹¹. One of the functions is to support the growth and repair of muscle and tissue in our body^{1,11}. However, the time taken to break down protein into amino acids and deliver them to muscles varies and depends on the types of protein⁴. Both fast and slow-release proteins are very useful in reaching fitness and body goals, ².

Fast-Release Protein

Fast-release proteins breakdowns quickly which result in a spike of amino acids to the muscles¹⁰. As they are easy to digest, these proteins are ideal when someone needs the protein to ease muscles soreness or post-workout⁴. According to a study, this fast-release protein such as the whey protein is beneficial for skeletal muscle adaptations, which will result in greater gains in lean mass and strength compared to slow-release protein^{4,6}.

Whey protein is one of the most popular fast release proteins. It is more soluble in the acidic environment in the stomach which leads to more rapid digestion⁹. Therefore, whey protein supplementation after post-exercise can be an effective strategy to improve the protein synthesis recovery after resistance exercise, enhancing muscular growth and strength^{3,7}.

Slow-Release Protein

Slow-release protein such as casein results in an extended supply of amino acids over a longer period¹². As casein releases and digests amino acids slowly, it is often consumed before a sweat session or before bed to improve muscle recovery and reduce muscle breakdown during sleep^{4,12}. This makes casein an ideal night-time recovery protein⁸. In addition, due to its slower acting, it can help to keep the stomach full for a longer period of time and balance the blood sugar levels which are ideal for people with type 2 diabetes to stay full and avoid spikes in blood sugar levels^{5,9}.

In a nutshell,

By taking either fast or slow or even both releasing protein, what matters is for us to understand how they work and how they can be a useful tool for our diet so that it aligns with our body goals and needs.

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