



# WHEY PROTEIN ISOLATE VS WHEY PROTEIN CONCENTRATE

## THE DIFFERENCE

One of the most commonly asked questions is 'What's the difference between whey protein isolate and whey protein concentrate?' While the differences are subtle in terms of protein content and health benefits, there are a few things to consider before deciding which product is right for you.

Tuff Supps offers two delicious whey protein options; a Whey Protein Isolate (WPI) and Natural Whey, which is a 50/50 blend of Whey Protein Isolate and Whey Protein Concentrate and provides the best of both worlds.

## WHAT IS WHEY PROTEIN AND HOW IS IT MADE?

Whey Protein Isolate (WPI) and Whey Protein Concentrate (WPC) have the same beginnings, WPI goes through an extra step of filtration to achieve further refinement, thus giving it a **higher protein content**.

Whey is a by-product of the cheese-making process, isolating the whey involves separation from the curds (casein) using enzymes, then double filtration to become WPC, a further ultrafiltration forms WPI. The filtered liquids are evaporated and dried to become pure protein powders, which are raw products for whey-based protein powders.

Raw protein is a neutral-tasting powder that is composed almost entirely of protein compounds. It is **rich in nutrients** and contains **all nine essential amino acids**, which are renowned for their ability to **trigger muscle protein synthesis** and **protect muscles from breakdown**, as well as being critical to our **overall health**.

**THE BEST QUALITY, FLAVOUR  
AND HEALTH BENEFITS POSSIBLE,  
WITHOUT COMPROMISE.**

## TUFF SUPPS NATIVE WHEY

Not all whey proteins are the same. During traditional commercial manufacturing of whey protein, the products are exposed to heat, additives and denaturation. This results in a 'bending' or altering of the delicate structure of the whey protein molecules.

Tuff Supps Native Whey is unique in that it is **non-denatured** and produced directly from Australian grass-fed cow's milk rather than a by-product of cheese manufacturing. It is prepared from **fresh cow's milk** that has passed through an innovative **serial filtration process** and is then **gently spray dried**, which produces our native whey proteins in their **protein-preserved state**.

## TUFF SUPPS NATIVE WHEY PROCESS IS SUMMARISED AS;

- Milk sourced directly from grass-fed, non-hormone-treated cows.
- The protein is carefully extracted directly from milk and treated at a lower temperature preserving the nutritious properties.
- The latest filtration techniques are used to remove unwanted fat and lactose while maintaining the protein's delicate structure.
- The protein is gently dried without using chemicals ensuring that the end product is an 'intact' whey protein.

## PROTEIN CONCENTRATE

WPI undergoes an extra step of filtration than WPC which removes almost all fat and lactose content. While both **WPI and WPC are rich in protein and amino acids**, WPI is left with a higher concentration of protein (raw WPI is almost 90% whilst raw WPC is 80%). This makes it one of the purest sources of protein available.

## LACTOSE CONTENT

WPI contains less fat, carbohydrates and lactose than WPC. The minimal traces of lactose in whey protein isolate make it **easier on the stomach**, providing a more suitable option for those who are sensitive to or mildly intolerant of dairy products.

## DIGESTION AND ABSORPTION

Both formulas are **bioavailable**, which means they are easily absorbed by the body. WPI can be digested and **utilised by the body faster** than WPC due to its minimal lactose content. This can vary from person to person and usually depends on how well someone tolerates dairy.

## TASTE

WPC produces a **creamier, frothier shake** due to its higher dairy content. WPI produces a thinner consistency and is less creamy though still **full-bodied in flavour**.

## PRICE

WPI costs slightly more than WPC due to the extra step in production and higher protein content. WPI is the **premium choice** for gym-goers and athletes seeking **rapid absorption** for enhanced **post-workout recovery**. WPC Native Whey is ideal for those on a tighter budget or gym enthusiasts who are simply looking for a good **all-rounder protein**, as it provides the best of both worlds with a great blend of WPI and WPC.

**100% NATURAL  
HIGH QUALITY INGREDIENTS**

## AUSTRALIAN WHEY

Tuff Supps is unique in that our entire range of whey-based protein powders is derived from the milk of **Australian grass-fed and non-GMO dairy cows**. Here at Tuff Supps, we are proud to support our Australian dairy farmers and Australia's high-level of requirements for the production of milk.

Tuff Supps is committed to offering only the **highest quality ingredients** in our products. Our entire range is **100% natural** and has been created with **premium raw ingredients** sourced from across the globe to ensure the **best quality, flavour and health benefits possible, without compromise**.

## SUMMARY

The differences between whey protein concentrate and whey protein isolate are fairly subtle. Mainly being the trace amount of lactose and fat in WPI and the contrasting **creamier taste** of WPC.

For an everyday gym enthusiast, WPC is an ideal product to help achieve **weight loss** goals, assist in **toning** and meet your **daily protein** intake. WPI may be more advantageous for those who train more intensely or are looking to gain **lean muscle mass**, due to its **fast absorption** and **high protein content**.