

Waxy Maize: New Carb on the Block

Carbohydrates are critical macronutrients that help to maximize a lifter's performance inside and outside of the gym. Your body typically stores carbs in the form of glycogen in skeletal muscle and liver, with small amounts found as circulating glucose. During exercise, the stored carbs are released and provide the body with a source of readily usable glucose and are a principle source of energy. Without adequate carb stores, the body would "run on empty". When this happens, your body produces an elevated amount of an enzyme called glycogen synthetase. This enzyme helps restore glycogen levels that have been depleted during the workout. Having an elevated amount of this enzyme in your system is just part of the equation for replenishing glycogen levels.

You can produce all the glycogen synthetase in the world, but if you're not feeding the body with enough carbohydrates when this enzyme is at its peak level (post-workout), it will all be for nothing. This is why it is so crucial to take in carbohydrates after weight training, during the nutritional "window of opportunity". Consuming carbohydrates post-workout helps to maximize the extra glycogen synthetase that is now active post-training, and enhances glycogen synthesis post-workout.

This is all pretty old news. What's new is there's another form of carb you should consider... There is a new carb on the block that could rapidly improve glycogen synthesis. What is this carb? Waxy Maize Starch (WMS). WMS is a unique high molecular weight carbohydrate that has the ability to move through the stomach very rapidly--roughly 80% faster than the often used post-workout carbohydrates such as dextrose or maltodextrin. For rapid glycogen replenishment and nutrient uptake in the muscles, this new carb should be considered a "must have". But WMS's advantages are strictly limited to how quickly or efficiently your body can absorb it. There's more...

Because of its high molecular weight, WMS works from two angles: gastric emptying and osmolarity. Let's break down each. Gastric emptying is how quickly a nutrient can empty from your stomach and get absorbed. WMS, being that it is a high molecular weight carbohydrate, essentially passes through your stomach and thus gets to your muscles faster than any other carbohydrate out there (about 80% faster as stated earlier). For quick nutrient replenishment this is huge.

Now about osmolarity... Here's where things get really interesting. WMS, because of its functionality, can actually help draw other nutrients and water into your system along with itself. This is osmolarity. Osmolarity refers to the movement of nutrients in solution over the cell membranes. The low osmolarity of WMS drives it across the intestinal wall and into the bloodstream, allowing for substances to reach the muscle cells rapidly and for the maximal volumization of muscle tissue. Think of WMS as a kind of vortex or torrent, pulling itself along with other nutrients in your system into your hard-worked muscles. WMS, when used with other ingredients, can suck those ingredients into your muscles damaged by training faster and more efficient.

In summary, WMS seems to be a wonder carb for athletes and bodybuilders in igniting anabolism through rapid nutrient transport and in promoting enhanced muscle fullness. If you're looking to optimize recovery and glycogen replenishment this new discovery may just be your ticket to new size and strength gains.