

# KarboLyn® - Turbocharged Carbohydrate Technology for Serious Athletes

© 2014 All rights reserved

## ENERGY

**en•er•gy** *noun* \ ' e-nər-jē\

: available power, or the capacity to perform vigorous activity.

Energy. Hard training athletes expend incredible amounts of it. Their bodies require greater reserves of it. Without access to readily available sources of it, their performance suffers. During training, this can occur at an exponential rate.

Without question, a focus on energy intake is critical for serious, goal-oriented athletes.

## PURE ENERGY

During rigorous exercise, the “reactor core” of hard-training athletes’ metabolisms can be thrust into overdrive, and the energy demands to support rigorous workouts can skyrocket. Therefore, the importance for a source of pure energy during this period of time *cannot be overstated*.

The body’s *preferred* source of pure energy comes from carbohydrates.

Because every cell in the body requires it for metabolic fuel, cellular demands for carbohydrate fuel become exponential during training. This is why most sport nutritionists agree that an athlete’s diet should consist of 70% to 80% carbohydrate. This equates to a whopping 1,000 grams of carbohydrates for an athlete that consumes 5,000 calories per day!

## DEPLETION DANGER

Unfortunately, some athletes skimp on carbohydrates, or even worse, follow low-carb dietary regimens. As a result, their bodies may become substantially depleted of carbohydrate fuel. This poses some real problems for performance - on *many* fronts.

What happens when available reserves of carbohydrate fuel runs too low? Nothing beneficial. In fact, it can be downright destructive to the body...literally. If energy demands outpace carbohydrate availability, the body will turn to non-carbohydrate sources in order to “make more.” This is called, gluconeogenesis.

These “non-carbohydrate” sources can include certain amino acids from muscle tissue. In other words, during periods of carbohydrate depletion, lean muscle protein itself can be “chewed up” for energy. In essence, the body “cannibalizes” itself in order to generate adequate carbohydrate for energy. For serious athletes, such tissue depletion can be catastrophic on performance, recovery, new growth, and muscle preservation.

## **CARBOHYDRATES DEFINED**

Now that we’ve made a case for the importance of dietary carbohydrate, we should take just a moment to define what they are.

Carbohydrates, aka saccharides, are simple organic compounds that are aldehydes or ketones with many hydroxyl groups. Clear enough? Probably not, that is unless you are a nutritionist or biology student. Why don’t we step it down a notch with an explanation for the rest of us?

Here we go. Carbohydrates are one of the four macronutrients (primary) we consume in the diet (the others are protein, fat, and water). On a molecular level, carbohydrates are comprised of carbon, hydrogen, and oxygen. Therefore, the abbreviation for carbohydrate is CHO.

The simplest form of carbohydrate is called a monosaccharide (one carbohydrate molecule). Monosaccharides are the foundational building blocks for other carbohydrates such as disaccharides (two carbohydrate molecules) and polysaccharides (many carbohydrate molecules).

Based upon their number of linked monosaccharides, dietary carbohydrates are generally classified as being either simple, or complex. Both types supply 4 calories per gram.

Simple carbohydrates are commonly known as sugars. They are generally comprised of only one or two combined molecules of carbohydrate (monosaccharides and disaccharides). Examples include sucrose (table sugar), dextrose, maltose, fructose (from fruit), and lactose (from milk). Due to their short molecular length, simple carbohydrates are generally fast digesting.

Complex carbohydrates, otherwise known as starches, are comprised of *many* linked monosaccharides (polysaccharides). Examples of complex carbohydrate include breads, pastas, grains, lentils, and rice. Due, in part, to their molecular length, complex carbohydrates are generally slow digesting.

## **ENERGY CONVERSION and STORAGE**

When dietary carbohydrates are consumed, they are digested into their simplest form – a monosaccharide called glucose. Glucose, aka “blood sugar”, is then absorbed into the circulation for transport throughout the body. The subsequent rise in blood sugar triggers the pancreas to secrete a hormone called insulin. Insulin’s role is to “open the cellular doors” that accept glucose.

Once inside a cell, glucose is either stored for later use, or consumed immediately for energy production. In muscle cells, stored glucose is called glycogen; the primary fuel source used during intense training. Glucose that is needed for immediate energy is converted into usable fuel called ATP (adenosine tri phosphate).

## **THE TRUTH ABOUT CARBOHYDRATE LOADING**

Traditionally, athletes have practiced the art of carb loading; the consumption of starchy carbohydrates, like pastas, leading up to a sport event. As the theory goes, a meal of complex carbs a couple of hours before an event will pre-load muscles with ample glycogen stores.

Here’s the problem with that logic; breads and pastas can take up to 24 hours to digest.

Another line of thought is to consume a source of simple sugars pre-workout. Again, this poses a problem; simple sugars tend to cause a rapid rise in blood sugar followed by a period of low blood sugar. This is known as “the crash.”

## **KARBOLYN® – THE ULTIMATE CARB FOR ATHLETES**

The industry – leading team of All American EFX formulators and research scientists were compelled to engineer a better carb. The end result of their groundbreaking work is KARBOLYN® – the *ultimate* carbohydrate for athletes.

Patent pending KARBOLYN® was expressly developed for the purpose of carbohydrate loading. It was designed for athletes seeking maximum performance potential, to efficiently *and safely* load muscles with glycogen stores. In fact, KARBOLYN® is absorbed in less than two hours! *That’s* efficient! For the purpose of pre-exercise loading, this makes KARBOLYN® vastly superior to both dietary and supplemental carbohydrates.

## **KARBOLYN® - TURBOCHARGED NUTRIENT LOADING**

KARBOLYN® is a uniquely engineered homopolysaccharide (relatively complex carbohydrate) with a precisely manipulated “molecular mass.” This molecular mass is what enables KARBOLYN® to absorb through the digestive track at a substantially *faster rate than most other* dietary or supplemental carb on the market.

Even at this hyper-fast rate of absorption, KarboLyn® is completely *sugar free* yet still provides the *sustained energy* of complex carbohydrates. Think about the implications of that last statement...KarboLyn® delivers the best qualities of *both* simple and complex carbohydrates!

Here’s where things get really exciting. Because KarboLyn® passes so quickly into circulation; it functions as a sort of “pump” that draws water and nutrients along for the ride. Translation: KarboLyn® may help to drive key ingredients from other products into the bloodstream. This factor makes KarboLyn a perfect addition to creatine products, pre-workout amplifiers, endurance formulation, and post-workout shakes.

## **KARBOLYN® - IT’S ALL ABOUT PRECISION**

Contrary to all the marketing hype, carbohydrate sources such as unprocessed waxy maize starches are *inferior* for rapid glycogen loading and nutrient absorption. These starches have not been accurately processed to attain rapid absorption into the bloodstream.

In stark contrast, KarboLyn® uses a proprietary, multi-stage “Enzymatic Milling Process” to achieve optimal molecular size. This yields a superior, bio-engineered carbohydrate for quick gastric emptying without any side effects (such as stomach bloating or cramping) and is rapidly absorbed into the bloodstream.

## THE BIG QUESTION

Along about now, the question you should be asking yourself is, “Why aren't I using KarboLyn®?”

If you are still unclear, or haven't been paying attention, here's the rundown. KarboLyn® is a bio-engineered, high-performance carbohydrate that absorbs *faster* than a simple carb, yet provides the *sustained* energy of a complex carb.

- KarboLyn® quickly loads muscle tissue with glycogen for optimum performance, endurance and recovery.
- KarboLyn® is designed with a “sustained – release” mechanism for over 2 hours of stimulant-free energy.
- KarboLyn may “pump” other nutrients and water into the bloodstream as it is being absorbed
- KarboLyn is 100% sugar free and gluten free.
- KarboLyn mixes instantly: no clumping or gelling

## Any questions?

Look, as a serious athlete, you demand the most out of your performance potential, each and every workout. Therefore, it only makes sense to do everything in your power to ensure optimal glycogen loading. The way we see it, the most efficient way to quickly and safely load, or reload glycogen stores is with the one and only, KarboLyn®

KarboLyn® - you owe it to yourself to help ensure maximum performance.