Conversation Corner

A Newsletter for Fitness Enthusiasts

Carbohydrates, including *Sugars*, the Exerciser and Athlete's Ally

You know you're in trouble when they start making low- carbohydrate beer—which of course isn't low carbohydrate— and add an "Atkins friendly" diet product to a large fast food chain menu with national ads built around those claims. The world is playing to the naivety of the public rather than educating them. Why not? It's resource intensive to try to teach people the difference between necessary and unnecessary carbohydrates, and it allows businesses to create new and different products to help increase sales.

Playing the game

Apex produced a high-protein, low-carb bar a few years ago for two reasons: 1) to get the "low-carb lifestylers" involved with Apex so we could eventually educate them, and 2) to have a protein supplement in an easy-to-consume form so you could add your favorite carbs for a complete meal. For example, if you to eat donuts for breakfast, eat the protein bar for your protein requirement and add the donuts for your carbs and fats.

Because our bars were true high-protein/low sugar/lowcarb bars, the flavors didn't hold up well over time, so we discontinued them. But food technology has now evolved and we're able to produce a great tasting, long lasting, ***true*** lower carb bar. Bottom line is: Be ready for our low-carbohydrate products, and learn how to use them based on your goal or situation.

The body composition goal determines the total calories and the activity determines the make-up of those calories

Unfortunately, the media blitz on low carbs affects the uneducated athlete and exerciser. If you are overweight and not an exerciser or athlete, then I don't care how much carbohydrate (C), protein (P), or fat (F) you consume. I only care that you do whatever it takes for you to lose weight and keep it off so that you can lead a healthier life. And maybe that's a high-protein diet (although no one has been able to document significant long-term success in over 100 years of high-protein diets).

If you choose to exercise to lose weight or are involved in athletics at any level, then you must consume more carbohydrates than either fat or protein in order to properly lose fat and maintain an energy level that will ensure success in both endeavors—losing fat and improving performance. Remember, you are not increasing calories by adding carbs; you are shifting to a higher percentage of carbs within the allowed calories in order to produce more energy to burn more fat during workouts and throughout the remainder of the day.

Exercisers

In the case of exercisers, obviously the more energy you have the more fat/calories you will burn. So if you are allowed 2000 calories a day in order to lose weight, you want those calories to be comprised of foods that make you more energetic so your workouts are better and your daily activities are increased. If the 2000 calories are made up of predominately proteins and/or fats (both which are very inefficient energy sources), your energy levels will steadily decrease. And though you may lose weight at the start of the diet, as your energy levels decline you automatically burn fewer calories. Now in order to continue to lose weight you must

reduce calories or move more, neither of which would be necessary if the calories were made up of the proper percentages of P, C and F. Worse, you will definitely lose muscle (or seriously compromise growth) along with fat, since your protein intake will now be used for energy needs rather than building or sustaining muscle. Remember, energy has priority over how big you are. Energy is needed to sustain cell life and size has no meaning when food is limited.

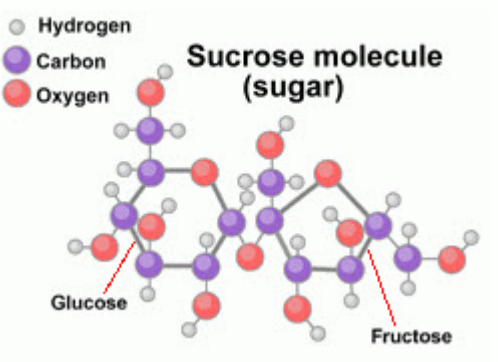
Athletes

If you are an athlete it's a no-brainer—eat the carbs. That's what makes you an athlete. You cannot fill your energy systems without carbohydrates. Approximately 6-10 grams of carbohydrate per kilogram of weight (depending on the sport) for almost all athletes is necessary to delay fatigue which—guess what—burns more calories.

Bottom line for our patrons

Apex has formulated food products for the people who exercise and/or are athletic. If you are exercising and are interested in losing only fat, you must consume more carbohydrates than protein and/or fat.

Sugars



Introduction

It is the general population's interpretation of "sugar" that confuses the true science of carbohydrates (CHO) and this skewed perception primarily exists in weight- conscious individuals. CHO (sugars) do not make anyone fat—eating too much food in relation to your activity does. All foods (Protein, Fat and Carbs) convert to fat when you exceed your daily caloric needs.

Only in a non-exercising, diseased population (overweight-related maladies) can carbohydrate intake when consumed in non-nutritional foods (e.g. sodas, candies, etc.) negatively impact health. Unfortunately, 62% of Americans are sedentary and overweight and have not been able to change their lifestyles and therefore should avoid the majority of simple CHO when they are mixed into non-nutritional foods like desserts.

Apex – the athlete's choice in functional foods

The media or "gym science" does not drive Apex food product formulas; they are modeled around the needs of the sports and fitness enthusiast. The carbohydrate (C), protein (P), and fat (F) profile of each product is matched to a specific goal. The types and amounts of CHO, including the combinations of sugars contained in the Apex foods, are necessary and ideal for athletes, exercisers and/or dieters.

Facts

- **All** carbohydrates are made up of sugar units
- Sugars are essential to life and especially important to athletes
- Sugar is a lay-term that describes a sweet, short- chained CHO. When ingested

alone (not in the presence of protein or fat), it breaks down quicker than a longer-chained CHO into an energy molecule. Longer-chained CHOs are made up of the same molecules that are contained in the shorter chained CHO*

- Long-chained CHO and short-chain CHO (sugars) mixed with appropriate protein and fat (as in an Apex meal replacement) break down at an ideal rate for consistent energy production
- The sugars listed on a label refer to the amount of shorter chained (one or two units) CHO that is present in the product. For instance, one cup of milk contains 11 grams of CHO, which is listed as 11 grams of sugar or 100% because the sugar in milk is a two-unit CHO. An average banana is 27 grams of CHO in which all 27 are listed as sugars or 100% sugar
- Successful dieters, as documented by the NWCR located at the U. Pitt & U. Col, average a 2.5-1 ratio of CHO to P consumed at each meal
- Successful athletes and exercisers consume and need up to a 4-1 ratio of CHO to P at specific times. The CHO in these meals must be a mixture of slow and fast acting *SUGARS*
- The type of CHO (sugars) in a healthy food product that also contains P and F (e. g. MR, milk, yogurt, etc.) will have no bearing on weight control. The only significance of the CHO or sugar profile in such a product is how it affects taste, and to a much lesser degree, energy production

Bottom line

If you are weight or body-fat conscious, you should only be concerned about your total daily caloric intake. In other words, sugars are okay as a part of your diet. If you are an exerciser and/or athlete, make sure your CHO intake is significantly higher than your protein at each meal so you will have more energy to burn more calories. A combination of fast-acting (short-chained) and slower-digesting CHO is the ideal formula for maximizing energy levels. **The bottom line is: never worry about the types of sugars in a formula when the product also includes P & F.**

One final note

Endurance athletes, the skinniest people on the planet, consume approximately a 6-1 ratio of CHO to P all day, and the CHOs are made up of all types of sugars— short and long chains.

** Sugars are often associated with foods of little nutritional value and high in calories (e.g. Hostess Twinkies) so the word* sugar *has become synonymous with foods that are often linked with fatness when consumed regularly.*