

# Maltodextrin

## Key Points:

1. Maltodextrin is classified as a complex carbohydrate, but acts like a simple carbohydrate in the body.
2. Maltodextrin will not supply long-lasting energy provided by most complex carbohydrates because of this.

Maltodextrin is a synthetically manufactured long chain carbohydrate. Also known as a polysaccharide (many sugars), maltodextrin is artificially created when acids or other enzymes are applied to cornstarch, which breaks the starch into medium-length chains of dextrose (glucose) molecules<sup>1</sup>. Maltodextrin may be disguised on labels with different names; sometimes it is referred to as “glucose polymers” or complex carbohydrate. Simply put, maltodextrin is a very long chain of repeating glucose molecules connected together. Because of this particular structure, maltodextrin can be classified as a complex carbohydrate, as opposed to a simple carbohydrate like glucose.<sup>2</sup>

Simple carbohydrates are typically singular or up to three sugar molecules in length. Maltodextrins can be hundreds of sugar molecules in length, much larger than the simple carbohydrate arrangement of glucose. Because of this, many beverages include maltodextrin in their formulas in order to have a lower amount of sugar on their nutrition fact label. Maltodextrin, classified as a complex carbohydrate, will be included under the “Total Carbohydrate” heading on the nutrition label, rather than under the ‘sugars’ label. Once maltodextrin is digested, it becomes glucose.

While complex carbohydrates such as maltodextrin can be beneficial prior to and following exercise, they must be altered by the body prior to direct usage in energy processes because of their large size. Maltodextrin is very different from a typical complex carbohydrate because of its simplified structure of repeating dextrose units. It does not provide the long-term energy that a true complex carbohydrate does. Maltodextrin must first be enzymatically altered by the body before its benefits are realized in the form of energy.<sup>3</sup>

Naturally occurring complex carbohydrates often contain some vitamins and minerals that are required to assist assimilation of the carbohydrate into the body’s energy processes. In one sense, nature packages them this way, so that the complex carbohydrates bring their own digestive and energy cofactors with them, into the body. Conversely, maltodextrin typically contains very little, if any vitamins and minerals to assist with its own digestion and assimilation. Because of this, consuming maltodextrin may actually reduce the amount of vitamins and minerals in the body. Due to the large size of maltodextrin, it uses more vitamins and minerals than will a simple carbohydrate, which can lead to a net decrease in an athlete’s vitamin and mineral status over time.

Glucose is nothing more and nothing less than the most simplified form of energy for humans.

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**Gleukos Key Points:**

Unlike other sports and energy drinks, Gleukos provides the body with a simple, natural form of energy that the body recognizes inherently.