

NUTRITION NEWS

Sweet Facts About Stevia



Sweet Substance: Stevia

Stevia rebaudiana is a South American plant native to Paraguay that has long been used to sweeten beverages and make tea. While the word “stevia” refers to the

entire plant only some of the components of the stevia plant are sweet. These sweet components are called steviol glycosides. Stevia is now grown and harvested in many areas of the world, from Central and South America to Asia, Europe, Africa, and China, where most of the world’s stevia is currently cultivated. Stevia is also found as an ingredient in many products, such as ice cream, bread and soft drinks, throughout Asia and South America.

Steviol Glycosides

Steviol glycosides are found in the leaves of the stevia plant and each has a particular taste profile and sweetness intensity. Steviol glycosides can be isolated from the leaves of the stevia plant and have now been added to some foods, for example beverages and tabletop sweeteners in the U.S. and elsewhere.

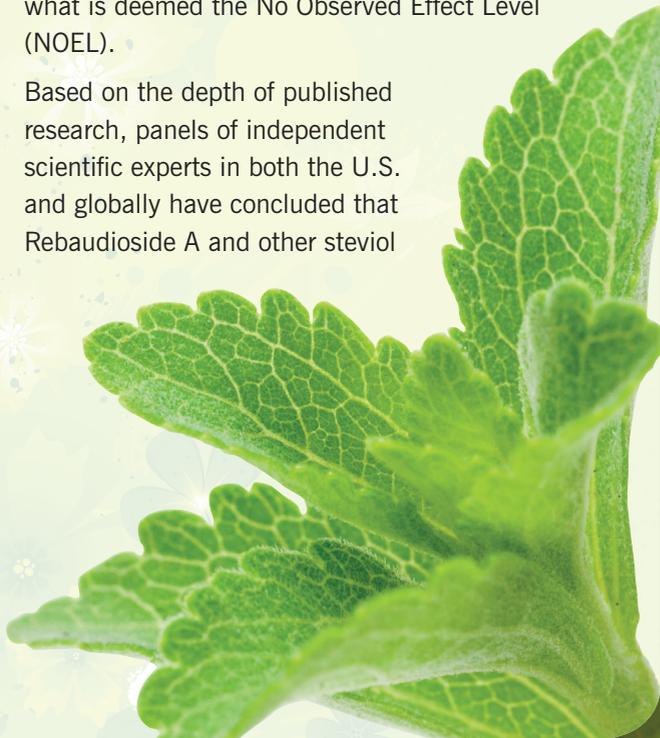
Sweet Ingredient: Rebaudioside A

Rebaudioside A is one of the many steviol glycosides in the leaves of the stevia plant that provides sweetness. It is Generally Recognized As Safe (GRAS) for use as a general purpose sweetener in the U.S. so may be used in foods and beverages, excluding meat and poultry products. Rebaudioside A is approximately 250 to 300 times sweeter than sucrose.

Safety of Stevia Sweeteners/Steviol Glycosides

Recent studies including human studies on safety, metabolism and intake, have demonstrated the safety of steviol glycosides. The Joint FAO/WHO Expert Committee on Food Additives (JECFA) has conducted a thorough scientific review of the existing scientific data on steviol glycosides, including Rebaudioside A, B, C, D and F, and concluded that they are safe for use in foods and beverages. An ADI of up to four mg/kg body weight has been established for steviol glycosides as steviol. It would take approximately 30 packets of a tabletop sweetener or more than 24 8-oz servings of a diet beverage per day (for a 150-lb person) to reach the Acceptable Daily Intake (ADI). The ADI for food ingredients is set at a level determined to be safe to consume every day for a lifetime without risk. Consuming more than the ADI does not mean an adverse effect will occur because the ADI includes a wide margin of safety (generally 100-fold) above what is deemed the No Observed Effect Level (NOEL).

Based on the depth of published research, panels of independent scientific experts in both the U.S. and globally have concluded that Rebaudioside A and other steviol



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glycosides are safe for people of all ages including children, persons with diabetes, women who are pregnant or lactating, overweight persons and the elderly. Studies published in the journal *Food and Chemical Toxicology* in May 2008 showed that very high doses of steviol glycosides (equivalent to a 150-lb person drinking 2,000 eight-ounce servings of a beverage sweetened with stevia sweeteners) had no negative effects on general health or particular organs, including the liver.

Metabolism

Based on studies conducted in the past several years, JECFA has concluded that the sweet components of stevia, the steviol glycosides, are metabolized by a common pathway. This begins in the gut where the glycosides are broken down to steviol. Steviol is excreted in the urine as steviol glucuronide. However, little steviol is absorbed. The metabolized components of steviol glycosides leave the body essentially unchanged.

Regulatory Status

In December 2008, the FDA stated it had no objection to the conclusion of an expert panel that Rebaudioside A is GRAS for use as a general purpose sweetener in foods and beverages, excluding meat and poultry. FDA has now stated that a number of steviol glycosides may be used as general purpose sweeteners in the U.S. In Canada, stevia is

sold as a natural health product. Stevia and steviol glycosides have a long history of use in several countries, including Japan and Paraguay. Stevia sweeteners are approved for use in many other countries including Korea, Taiwan, China, Russia, Switzerland, Australia, Argentina, New Zealand, Mexico, Colombia, Peru, Uruguay, Brazil, Chile and Malaysia.

Sensibly Sweet: Incorporating Stevia Into a Healthful Lifestyle

Components of stevia contain zero calories, which means stevia may sweeten foods and beverages resulting in fewer calories. Further, research has shown that the use of stevia sweeteners does not affect blood glucose or insulin response, which allows people with diabetes to consume a greater variety of foods and comply with a healthful meal plan. Stevia and its components are “natural” which may further benefit consumers who prefer foods and beverages they perceive as natural.

Listen to a FREE recorded webinar (with CPE credit) regarding stevia to get the most up to date and scientifically accurate information about this ingredient. For more information visit www.steviabenefits.org



Calorie Control Council

www.caloriecontrol.org

For more information about stevia sweeteners visit:

www.steviabenefits.org.

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