

*According to national and international nutrition, health and food safety experts assembled at a conference on “Low Calorie Sweeteners, Health and Consumers”*

## LOW CALORIE SWEETENERS PLAY A POSITIVE ROLE IN DIABETES AND OVERWEIGHT PREVENTION

- ⇒ Low calorie sweeteners do not affect insulin or blood glucose levels
- ⇒ Health experts ratify their safe consumption at permitted levels
- ⇒ The EU currently authorizes the use of 10 low-calorie sweeteners

**Madrid, 26 November 2013.-** Low-calorie sweeteners play a positive role in diabetes and overweight prevention as they do not affect insulin and blood glucose levels and their calorie content is very low or nil. This is one of the main conclusions reached by national and international health, nutrition and food safety experts assembled at a conference on “*Low Calorie Sweeteners, Health and Consumers*”, organized by the Nutrition Research Foundation (FIN). The conference, whose goal was to discuss and research the role of low-calorie sweeteners in diets, received the backing of the Madrid Healthcare Service of the Autonomous Region of Madrid, the Biomedical Research Center in Red-Physiopathology of Obesity and Nutrition (CIBERObn) and the collaboration of the International Sweeteners Association (ISA).

The results of diverse scientific studies showing that low-calorie sweeteners do not affect blood sugar or insulin levels were presented during the conference. In the opinion of Prof. Dr. Lluís Serra-Majem, Professor of Preventive Medicine and Public Health from University of Las Palmas in Gran Canaria, President of the Spanish Nutrition and Food Sciences Academy and President of the Nutrition Research Foundation and one of the moderators at this conference, “*given that an important part of diabetes control involves maintaining blood sugar levels, low calorie sweeteners offer effective support in the diets of people with diabetes. Low calorie sweeteners represent an alternative to added sugars and play a significant role in weight control, thus helping to prevent obesity. It is necessary to develop materials with tips about low calorie sweeteners for Health Care Professionals*”.

### Sweetener safety

In spite of the significant volume of evidence-based data and international approval, some people continue to call into question the safety levels of low-calorie sweetener consumption. With respect

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to this point, Prof. Serra-Majem stressed that the European Food Safety Authority (EFSA) has reviewed the extensive volume of scientific bibliography on authorized low-calorie sweeteners and has drawn up a Scientific Report ratifying that it is a safe food ingredient for consumers' health within established Acceptable Daily Intake (ADI) levels. *"All low calorie sweeteners currently used in the preparation of food and beverages in Europe have been subjected to rigorous safety tests. There is no risk for health at current levels of consumption. Not only there are no health risks but we have to talk about benefits on certain diseases such as obesity, diabetes and tooth decay"*, explained Dr. Serra.

### **Low calorie sweeteners from the perspective of consumers and primary care professionals**

According to Dr. Susana Belmonte, Head of the Service for Nutrition and Eating Disorders at General Directorate of Primary Care at Health Council at the Community of Madrid, *"consumers often lack information about the types of low calorie sweeteners available in the market and there are also concerns about the risks associated with their use. In addition, many health professionals do not have adequate knowledge about the characteristics of the different types of low calorie sweeteners and therefore they can't advise on its choice based on their properties. It is necessary to develop health education programmes for the general population with the aim of promoting informed decision-making about food and nutrition. And, moreover, provide information to health professionals that will facilitate their daily interactions and allow them to be able to quickly and easily respond to the needs of their patients."*

### **Sweeteners and weight control**

The experts assembled at this conference also discussed the results of different research on the relationship between energy balance and body weight. The data presented show that low calorie sweeteners can help to control calorie intake on providing a pleasant taste with less or no calorie content.

To be specific, Dr. Pilar Riobó, Head of Nutrition and Endocrinology Service at the Hospital Jiménez Díaz Foundation in Madrid, has concluded, *"scientific evidence shows that low calorie sweeteners, consumed as sugar substitutes in food and drinks, combined with the practice of physical activity and a healthy lifestyle, play a significant role in weight loss and in maintaining a healthy weight"*. According to Dr. Riobó, *"scientific studies have shown that people who use sweeteners usually consume fewer calories than those who consume regular foods and show a better energy balance. It has also been proven that the use of low calorie sweeteners can increase weight loss program"*

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*adherence and it has been ratified that drinks containing aspartame do not affect appetite in the short-term or food intake, compared to water intake”.*

### Sweet-tasting food

Another of the issues analyzed during the conference was the role of sweet-tasting food and its physiological aspects. In this respect, Prof. Gregorio Varela, Professor in Nutrition and Food Sciences and Head of Health and Pharmacist Sciences Department at the Faculty of Pharmacy at CEU San Pablo University commented, *“Our sweet teeth have not changed in hundreds of years, but what has changed is that we eat more and do less physical exercise, factors that contribute to increasing obesity levels. Low calorie sweeteners can help to solve this problem, as they enable us to enjoy sweet flavors without significantly increasing our daily calorie intake”.*

### The history of sweeteners and their types

The first low-calorie sweetener in common use was saccharine, which was discovered in the United States in 1879 and commercialized not long after its discovery. Its use became more widespread during World War I mainly due to sugar shortages. Last century, more low-calorie sweeteners were discovered that were safely used by consumers across the globe. In the European Union, there are currently 10 low-calorie sweeteners that are authorized for food use: acesulfame-K (E-950), aspartame (E-951), cyclamate (E-952), saccharine (E-954), sucralose (E-955), thaumatin (E-957), neohesperidine DC (E-959), stevioside (E-960), neotame (E-961) and aspartame-acesulfame salt (E-962).

As was explained by Prof. Javier Aranceta, Associate Professor at University of Navarre, *“Low calorie sweeteners are ingredients that are increasingly used in food and drinks. We human beings have an innate preference for sweet flavors; nevertheless, due to sedentary lifestyles and high obesity rates, healthy lifestyle habits have to be promoted that take energy balance into account, in other words, the balance between calories consumed and calories burned through physical activity. In this context, low-calorie sweeteners offer an alternative to added sugars and play a significant role in weight control, thus helping to prevent obesity”.*

**For further information:**

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