

The document has been developed with the support of 43 organizations and international foundations of food, nutrition, dietetics, medicine; universities and research centres

More than 60 international experts publish in *Nutrients* the first Ibero-American Consensus on Low and No Calorie Sweeteners

- The Consensus, published in the scientific journal **Nutrients**, has been developed by more than 60 international experts in different disciplines
- Safety of low and no calorie sweeteners has been widely assessed and confirmed by health regulatory authorities across the world
- In diabetes management programmes, replacing sucrose or simple sugars by low and no calorie sweeteners may contribute to better glycaemic control

Madrid, 26th July 2018. The scientific journal *Nutrients* has published the first Ibero-American Consensus on Low and No Calorie Sweeteners (LNCS), developed by more than 60 international experts, which allows to combine in a document the role of LNCS in food, their safety, regulation and nutritional measurements, and the nutritional and dietary aspects of their use in foods and beverages when replacing sugars and other caloric sweeteners.

The goal of the document is, as points out **Prof. Lluís Serra-Majem**, Professor of Preventive Medicine and Public Health, Director of the Research Institute of Biomedical and Health Sciences of the University of Las Palmas de Gran Canaria and President of the Spanish Nutritional Research Foundation (FIN) is “to provide a useful, evidence-based, point of reference to assist in efforts to reduce free sugars consumption in line with current international public health recommendations”.

Among the main conclusions of this Consensus, experts have underlined “safety of LNCS, which has been extensively reviewed and confirmed, involves the authorisation of health regulatory bodies globally, including the World Health Organization (WHO), the US Food and Drug Administration (FDA) and the European Food Safety Authority (EFSA)” explains **Dr. Susana Socolovsky**, Doctor in Chemical Sciences from the University of Buenos Aires and President-elect of the Argentine Association of Food Technologists. Low and no calorie sweeteners are food additives that have been safely used by consumers all over the world for more than a century to keep the sweet taste of foods without providing the energy of sugars. “Recent systematic reviews with meta-analyses have assessed and confirmed the benefits of LNCS in patients with diabetes by contributing to better glycaemic control when used to replace sugars” states **Dr. Hugo Laviada**, coordinator of the research group in Nutrition and Metabolism of the Marista University of Mérida, Yucatan.

This first Ibero-American Consensus gathers the conclusions of a meeting of experts held in Lisbon in July 2017, organised by the Spanish Nutritional Research Foundation (FIN) in collaboration of the Lusófona University of Lisbon, and with the support of 43 organisations and

foundations specialised in nutrition and dietetics, medical societies, universities and research centres in Europe and Latin America. In this meeting, 67 international scientific experts in food, nutrition, dietetics, endocrinology, public health, physical and sports activity, paediatrics, nursing, toxicology and food regulation analysed and evaluated the role of LNCS in the diet. According to **Prof. Serra-Majem** “this Consensus statement responds to the Spanish Nutritional Research Foundation effort for reviewing and disseminating the current scientific evidence on the safety and benefits of low and no calorie sweeteners when used to replace sugar and other caloric sweeteners.”

Safety of low and no calorie sweeteners

The safety of sweeteners has been repeatedly assessed and confirmed by numerous risk assessment regulatory and scientific bodies, such as the Joint Food and Agriculture Organisation/World Health Organisation (FAO/WHO) Expert Committee on Food Additives (JECFA) and the Codex Alimentarius Commission (CAC). "Thanks to the rigorous regulatory framework and toxicological requirements existing worldwide, it can be confirmed that low and no calorie sweeteners are safe additives in the diet of the general population," says **Prof. Arturo Anadón**, Professor at the Department of Pharmacology and Toxicology of the Faculty of Veterinary of the Complutense University of Madrid in Spain.

The JECFA is also the body in charge of establishing Acceptable Daily Intakes (ADI) levels of food additives and, therefore, of LNCS. ADI is defined as the amount of a food additive that can be taken daily in the diet, expressed on a body weight basis, over a lifetime, without risk. In this regard, **Dr. Rebeca López-García**, Director of Logre International Food Science Consulting of Mexico, remembered that “the ADI does not represent a maximum allowable daily intake level. It should not be regarded as a specific point at which safety ends, as it has a built-in safety margin and is based on a chronic lifetime exposure”.

In this sense, the US Food and Drug Administration (FDA), the authority responsible for the regulation of US food additives, has said that occasional consumption in amounts greater than the ADI would not cause adverse effects.

At the European level, regulation on LNCS is the responsibility of EFSA’s Panel on Food Additives and Nutrient Sources Added to Food, which periodically evaluates the safety of these ingredients. Currently, the LNCS authorized for use in food and drink in the EU are: acesulfame K, advantame, aspartame, cyclamates, neohesperidine DC, neotame, saccharins, salt of aspartame-acesulfame, steviol glycosides, sucralose and thaumatin.

Food composition and nutrition labelling for low and no calorie sweeteners

LNCS provide a sweet taste with the addition of little or no energy and can be added to a wide range of products of the food and drinks sector such as frozen desserts, milkshakes, plant-based beverages, nectars and juice drinks, yogurts, soft drinks, biscuits, chewing gum and confectionery.

Food labelling related to food additives must meet the requirements laid out in regulation set in the market where food products are commercialized. The name of the LNCS must be included

in the list of ingredients, and, the term ‘with sweetener(s)’ must also be clearly stated on the label together with the name of the food or beverage product. Therefore, when a food or beverage contains aspartame or aspartame-acesulfame salts, the product label must bear the phrase, “contains a source of Phenylalanine”, especially important for individuals living with phenylketonuria.

Dr. Susana Socolovsky further stated that “consumers must be always duly informed and may recognise these ingredients in food. It is necessary that consumers can read and understand food labels, so campaigns aiming to reinforce consumers’ education must be encouraged”.

Low no calorie sweeteners role in body weight management and in chronic diseases

LNCS provide little or no energy; in this context, the consensus statement states that the use of LNCS as a substitute for caloric sweeteners in programs of weight reduction may favour weight loss and maintenance of this. In the case of people with diabetes, the use of these sweeteners in their control programmes may contribute to better glycaemic control. In words of **Prof. Samuel Durán**, Vice-President of the College of Nutritionists of Chile and Professor at the University of San Sebastian (Chile), “the consumption of foods and beverages sweetened with LNCS rather than with added sugars may help reduce sugar and energy intake and therefore be potentially beneficial for patients living with diabetes”.

Furthermore, the Consensus statement also indicates that LNCS can provide dental health benefits, as studies show that products containing LNCS can reduce the risk of tooth decay.

Dietary Guidelines for low and no calories sweeteners

The Consensus statement, based on current scientific evidence and recent WHO recommendations, recommends the reduction of free sugar intake to less than 10% of energy intake, so the use of LNCS in product reformulation could be a successful and sustainable strategy to achieve this important objective. In this regard, **Prof. Sérgio Cunha Velho de Sousa**, from the Paediatric Hospital of the University Hospital of Coimbra in Portugal, states that “sugars in food have many other functional roles further providing sweet taste, therefore, it is not always possible to eliminate or replace them without affecting the quality and stability of particular foods”.

Prof. Cunha Velho de Sousa adds that “dialogue with food and beverage manufacturers is required to discuss product reformulation to reduce the consumption of added sugars and/or replace total or partial content of sugar by LNCS. In addition to reformulation, other strategies such as reducing portion sizes should be considered”.

Food and nutrition education and consumer behaviour

Finally, this Consensus highlights the need to facilitate easy access to transparent, evidence-based, and easy-to-understand information for the general public and healthcare professionals. In the opinion of **Dr. Tommaso Bochicchio**, Professor of Nephrology at the Faculty of Medicine of the La Salle University of Mexico City and Director of Nephrology at the Mexican Institute of Transplants in Cuernavaca, Morelos, “continuing education of healthcare professionals is required, since they are a key source of information for both the general population and

patients. It may also be appropriate to disseminate information through periodical bulletins, professional forums, scientific meetings, congresses and other regular communication channels established by scientific and professional societies in different health-related fields”.

Consumers have access to many sources of information, not all of which reliable, on food, nutrition and health. This can often lead to misconceptions and unnecessary confusion within the population. Dr Caomhan Logue from the Nutrition Innovation Centre for Food & Health (NICHE), Ulster University in Northern Ireland, says that, “it is necessary to have effective means by which the scientific evidence on LNCS can be communicated to the public in order to increase awareness and help them make informed decisions that best suit their needs.” He goes on to say that, “the increasing use of new technologies and social media favours the rapid diffusion and exchange of information and these novel ways of communicating may present an opportunity to provide reliable and timely evidence-based information to consumers on the safety aspects of LNCS, as well as the potential health benefits of using LNCS.”

Serra-Majem LI, Raposo A, Aranceta-Bartrina J, Varela-Moreiras G, Logue C, Laviada H et al. Ibero-American Consensus on Low- and No-Calorie Sweeteners: Safety, Nutritional Aspects and Benefits in Food and Beverages. *Nutrients*, 2018;10(7):818-849

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