

## PRESS RELEASE

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The scientific journal *Nutrients* publishes the study 'Dietary Intake of (Added and Intrinsic) Sugars and Food Sources in the Spanish Population: Findings from the ANIBES Study'

## The ANIBES Study analyzes intake of total, intrinsic and added sugars, as well as its food sources in a representative sample of the Spanish population

- **The mean total sugar consumption in the general population aged 9 to 75 years was 76.3 g/day, contributing 17% of the total energy intake. When separating the data, the mean daily consumption of intrinsic sugars was 42.4 g/day and that of added sugars was 28.8 g/day, contributing 9.6% and 7.3% of the total energy respectively**
- **More studies are needed on the associations between the intake of total and individual sugars and health outcomes and chronic diseases in Spain**

The scientific journal [Nutrients](#) has recently published the research 'Dietary Intake of (Added and Intrinsic) Sugars and Food Sources in the Spanish Population: Findings from the ANIBES Study'. The work adds new evidence within this scientific study about anthropometric data, macronutrients and micronutrients intake and their sources, as well as the level of physical activity and socioeconomic data of the population, which has been coordinated by the [Spanish Nutrition Foundation](#) (FEN).

On this occasion, this new research has been focused on the disaggregated assessment of intrinsic and added sugars intake in the diet among a representative sample of the Spanish population, as well as of the main food and beverage sources that contribute to this intake.

According to the World Health Organization (WHO), intrinsic sugars are those incorporated within the structure of whole and fresh fruits and vegetables without having been manipulated or processed. On the other hand, the same organization defines added sugars as those added to foods and beverages during processing (whether it is done by the manufacturer, cook or the consumer itself), and sugars naturally present in honey, syrups, fruit juices and nectars.

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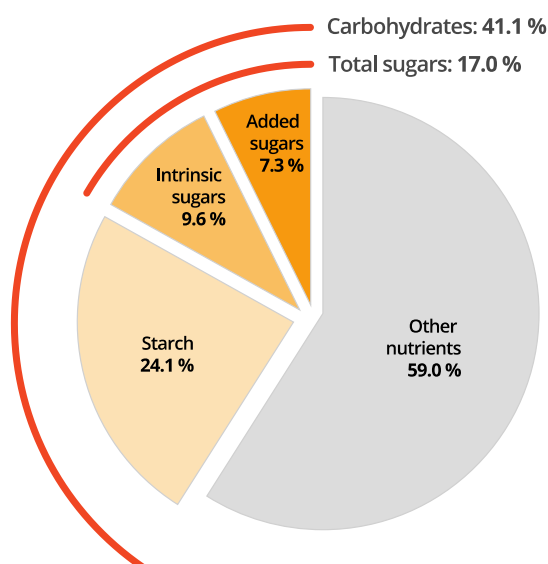


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“The mean total sugar consumption was 76.3 g/day, contributing 17% of the total energy intake”, explains **Prof. Gregorio Varela-Moreiras**, Chairman of the Spanish Nutrition Foundation (FEN), Director of the Nutrition and Food Sciences Research Group (CEUNUT) and Professor of Nutrition and Bromatology at CEU San Pablo University of Madrid. “When separating the data, the mean daily consumption of intrinsic sugars was 42.4 g/day and that of added sugars was 28.8 g/day, contributing 9.6% and 7.3% of the total energy respectively.”

### Distribution of total added and intrinsic sugars intake (%) among the general population (9-75 years)



With regard to the children population aged 9 to 12 years, “which is the age group with the biggest total sugar intake, this was around 91.6 g/day, contributing 18.8% of the total energy”, indicates the President of the FEN. “Sorted in descending order according to contribution, the food and beverages subgroups formed by milk, chocolate, juices and nectars, fruits, and bakery and pastry account for 60% of the daily intake of this type of sugars consumed by this group, followed by sugared soft drinks and yogurt and fermented milks.”

In the remaining age groups, “it is important to notice that adolescents (13-17 years) are the ones with the biggest added sugars intake (45.9 g/day out of a total sugar intake of 88.4 g/day)”, explains Prof. Varela-Moreiras. “The age group with the smallest added sugars intake was the elderly group (65-75 years), with an intake of 35.2 g/day out of a total sugar intake of 78.4 g/day.”

### Main Dietary Sources of Intrinsic and Added Sugars

The five groups and subgroups of foods and beverages that represented the major sources of intrinsic sugars in the total sample (9-75 years) participating in the ANIBES Study were “fruits group, milk subgroup, juices and nectars subgroup, vegetables group, as well as the subgroups of yogurt and fermented milks”, listed Prof. Varela-Moreiras.

“These foods and beverages are also those that contributed at a greater extent to the intake of this type of sugars in all age groups separately.”

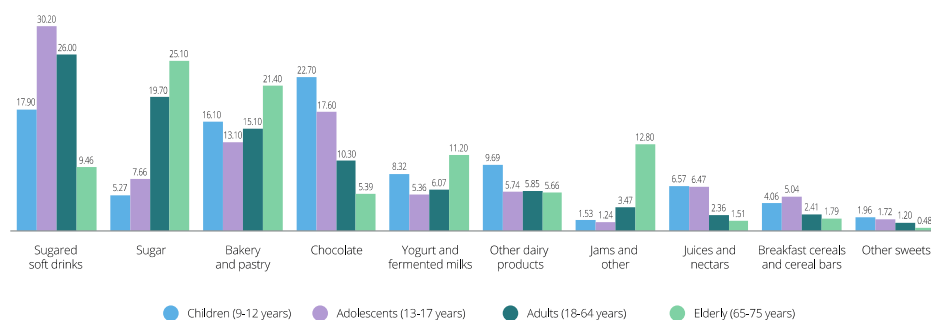
Concerning differences between sexes, “the female population tends to have a higher proportion of intrinsic sugars from food and beverages groups such as fruits, vegetables or milk and dairy products, which are usually considered as part of a healthy food pattern”, explains Prof. Varela-Moreiras. “They also consumed a lower proportion of food and beverages such as juices and nectars, low alcohol content beverages and sugared soft drinks.”

With respect to added sugars, the major food sources in the total ANIBES population (9-75 years) were the subgroups as follows: “sugared soft drinks, sugar, bakery and pastry, chocolate, yogurt and fermented milks, other dairy products, jams and other, juices and nectars, breakfast cereals and cereal bars, other sweets, sports drinks, bread and ready-to-eat meals”, indicates the President of the FEN. “Altogether they accounted for more than 95% of the contribution to the diet.”

In this sense, he continues to explain, “the subgroup composed of chocolate was the food source that contributed more added sugars among the children age group (9-12 years). This was followed by the following food and beverage subgroups: sugared soft drinks, bakery and pastry, other dairy products, yogurt and fermented milks, juices and nectars, sugar, breakfast cereals and cereal bars, other sweets, sports drinks, jams and other, and ready-to-eat meals. Altogether they represented more than 95% of the contribution of this type of sugars to the diet among children.”

“In the adolescents group (13-17 years) the subgroup of chocolate was on second place after that of sugared soft drinks as food source of added sugars” said Prof. Varela-Moreiras. These are followed by the subgroups of bakery and pastry, sugar, juices and nectars, other dairy products, yogurt and fermented milks, breakfast cereals and cereal bars, other sweets, jams and other, energy drinks and ready-to-eat meals. All of these accounted for more than 95% of the contribution of these sugars to the daily food intake in this age group.”

### Dietary sources of added sugars from top 10 food and beverage groups and subgroups (%) by age group



At an international level, the European Food Safety Authority (EFSA) has announced that it will provide scientific evidence on the daily recommended intake of added sugars in

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food by 2020, as well as their health effects and, thus, potentially specific recommendations on intake and its limits.

For its part, the WHO published in 2015 its updated guideline on free sugars intake for adults and children in relation to body weight and oral health. "In this guideline is recommended that, in both adults and children, the intake of added sugars throughout life should be reduced overall and also to decrease the intake of added sugars to less than 10% of the total intake, which this Organization had already stated in previous guidelines published in 2003", points out Prof. Varela-Moreiras.

"One in four participants in the ANIBES Study exceeded this figure. Overall, only the female population in the adolescents age group (13-17 years) was slightly above that recommended 10%", continues to explain Prof. Varela-Moreiras. "These findings of the study show that the percentage of people below the recommendations of added sugars intake in Spain is bigger in comparison with other non-Mediterranean countries. It is relevant to add that in our country there is a great variety -bigger than in other countries- of foods and beverages that are sources of this nutrient."

Nevertheless, concludes the President of the FEN, "it is necessary to emphasize that efforts are needed to improve diet quality in the youngest populations where patterns and trends are of concern. Furthermore, future studies are warranted on the associations between the intake of total and individual sugars and health outcomes and chronic diseases in Spain to better clarify nutritional policy to be followed."

Ruiz E, Rodríguez P, Valero T, Ávila JM, Aranceta-Bartrina J, Gil A, González-Gross M, Ortega RM, Serra-Majem L, Varela-Moreiras G. Dietary Intake of Individual (Free and Intrinsic) Sugars and Food Sources in the Spanish Population: Findings from the ANIBES Study. *Nutrients*, 2017;9(3):275; doi:10.3390/nu9030275.

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### Scientific Committee of the ANIBES Study

- **Prof. Javier Aranceta-Bartrina MD, PhD**, Chairman of the Scientific Committee of the Spanish Society of Community Nutrition (SENC), Clinical Director of the Spanish Foundation for Nutritional Research (FIN) and Associate Professor of Community Nutrition at the University of Navarra
- **Prof. Ángel Gil PhD**, Chairman of the Iberoamerican Nutrition Foundation (FINUT), Director of the BioNit Scientific Group and Professor of Biochemistry and Molecular Biology at the University of Granada
- **Prof. Marcela González-Gross PhD**, Vice President of the Spanish Nutrition Society (SEÑ), Head of the imFine Research Group and Professor of Sports Nutrition and Exercise Physiology at the Technical University of Madrid
- **Prof. Rosa M<sup>a</sup> Ortega PhD**, Director of the VALORNUT Research Group and Professor of Nutrition at the Complutense University of Madrid
- **Prof. Lluís Serra-Majem, MD, PhD**, Chairman of the Spanish Foundation for Nutritional Research (FIN), Chairman of the Spanish Nutrition and Food Sciences Academy (AEN), and Professor of Preventive Medicine and Public Health at the University of Las Palmas de Gran Canaria
- **Prof. Gregorio Varela-Moreiras PhD**, Chairman of the Spanish Nutrition Foundation (FEN), Director of the Nutrition and Food Sciences Research Group (CEUNUT) and Professor of Nutrition and Bromatology at CEU San Pablo University of Madrid

### Technical specifications of the ANIBES Study

**Design:** Representative sample of the resident population in Spain (excluding Ceuta and Melilla)

**Sample:** Individuals aged between 9 and 75 years old who live in municipalities with more than 2,000 inhabitants

**Universe:** 37 million inhabitants

**Sample:** Individuals aged between 9 and 75 years old who live in municipalities with more than 2,000 inhabitants

**Random sample plus boost:** 2,285 participants\*

\*Boost in the sample size was considered in order to obtain a correct representation

The final protocol of the ANIBES scientific study was previously approved by the Clinical Ethics Committee of the Autonomous Region of Madrid (Spain).

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