

PRESS RELEASE

Madrid, 25th May 2016

Published the research 'Beverage Consumption Habits and Association with Total Water and Energy Intakes in the Spanish Population: Findings of the ANIBES Study'

The ANIBES Study deepens in the quantification of daily intake of water in the Spanish population

- This new research, published in the scientific journal *Nutrients*, shows the variety of food and beverage that provide water in the intake of this “essential nutrient” in the daily diet of the Spanish population
- More research is needed to investigate water intake during all seasons of the year to know the intake patterns followed in Spain
- The recommendations for water consumption proposed by the European Food Safety Authority (EFSA) in 2010, which suggest that intake should be 2.5 L/day for men and 2.0 L/day for women (quantity that increases based on physiological conditions, practice of physical activity and environmental factors such as ambient temperature and humidity), are difficult to determine only from the registers of food and beverage consumption

The scientific journal [Nutrients](#) recently published the research 'Beverage Consumption Habits and Association with Total Water and Energy Intakes in the Spanish Population: Findings of the [ANIBES Study](#)'. This research work adds new data within this survey 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).

The aim of this research, within the ANIBES Study, has been to quantify the total water and beverage intake, and to explore associations between the types of beverage consumed and energy intake. Furthermore, fluid consumption according to time of day and day of the week, the association between beverage variety and increased fluid intake, and compliance with the current reference values by sex and age have been analyzed.

Intake and reference values

“Scientific literature recognizes that the adequate intake of beverages depends on each individual and the variation for water needs in response to different health status, metabolism, and environmental factors such as ambient temperature and humidity, as well as individual factors such as age, body size, and level of physical activity. Furthermore, water intake also

Coordinated by:



With the participation of:



depends on overall diet, including the water contained in food”, remarked Prof. Lluís Serra-Majem, PhD, Chairman of the Spanish Foundation for Nutritional Research (FIN), Chairman of the Spanish Nutrition and Food Sciences Academy (AEN), Director of the Biomedical and Health Research Institute and Professor of Preventive Medicine and Public Health at the University of Las Palmas de Gran Canaria. “In this sense, men consumed 1.7 L/day, approximately 33% less than the established recommendations, and women 1.6 L/day, nearly 21% less of the amount recommended by the European Food Safety Authority (EFSA), which suggests that intake should be 2.5 L/day for men and 2.0 L/day for women”.

With the participation of:

Contribution to Water Intake	Total*	Men*	Women*
Sample (n individuals)	2,007	1,011	996
All food and drink (g/day)	1,625.1 ± 14.2	1,664.2 ± 21.2	1,585.5 ± 18.9
Food only (%)	32.2 ± 0.3	32.4 ± 0.3	32.1 ± 0.4
Beverages only (%)	67.8 ± 0.3	67.6 ± 0.3	67.9 ± 0.4
Water	31.2 ± 0.4	29.5 ± 0.6	32.9 ± 0.6
Milk	11.8 ± 0.2	11.3 ± 0.3	12.3 ± 0.3
Hot beverages	7.7 ± 0.2	7.0 ± 0.2	8.3 ± 0.3
Caloric soft drinks	6.1 ± 0.2	6.9 ± 0.4	5.2 ± 0.3
Alcohol	5.7 ± 0.2	7.6 ± 0.4	3.7 ± 0.2
Fruit & Vegetable Juices	2.8 ± 0.1	3.0 ± 0.2	2.5 ± 0.2
Diet soft drinks	2.3 ± 0.1	1.8 ± 0.2	2.7 ± 0.2
Other non-alcoholic beverages	0.3 ± 0.0	0.3 ± 0.1	0.2 ± 0.0

* Mean ± standard error

“Taking into account that the mean total energy intake in the ANIBES Study was 1,809 kcal/day, the relative contribution from beverages was 12%”, indicated Prof. Lluís Serra-Majem. “This figure is close to that proposed by the EFSA and the World Health Organization (WHO), who recommended that no more than 10% of the daily calorie intake should come from beverages”.

With regard to the most frequently consumed beverage, “this scientific study indicates that it was water, followed by milk, for both genders” explained Prof. Lluís Serra-Majem. “Among men, these beverages were followed, in decreasing order, by alcoholic drinks, caloric soft drinks, and hot beverages. For women, the most consumed beverages after water and milk were, in this order, hot beverages, caloric soft drinks, and alcohol”.

Differences throughout the day

On the other hand, “according to the ANIBES Study, in the same way as the contribution to water intake from food increases with age due to the younger age groups’ lower consumption of fruits and vegetables, rich in water, the contribution of water from beverages is reduced in adults and older adults”, remarked Prof. Serra-Majem.

Moreover, he concludes that “beverage consumption pattern of the representative population of this study is uneven throughout the day, concentrated at lunchtime, with no significant differences between different age and gender groups”.

Nissensohn M, Sánchez-Villegas A, Ortega RM, Aranceta-Bartrina J, Gil A, González-Gross M, Varela-Moreiras G, Serra-Majem LI. Beverage Consumption Habits and Association with Total Water and Energy Intakes in the Spanish Population: Findings of the ANIBES Study. *Nutrients*, 2016;8(4):232; doi:10.3390/nu8040232.

Scientific Committee

- **Prof. Javier Aranceta, 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 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^a 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 ANIBES Study

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

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

Universe: 37 million inhabitants

Final sample: 2,009 individuals (2.23% error and 95% margin of confidence)

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).

More information:

FEN – ANIBES press office

Teresa del Pozo

Tel. 91 590 14 37 | 661 672 019

tdelpozo@torresycarrera.com

With the participation of:

