

PRESS RELEASE

Madrid, 27th February 2018

The scientific journal *PLOS ONE* publishes a new research within the ANIBES scientific study

The ANIBES scientific study analyzes the breakfast habits and differences regarding abdominal obesity in a cross-sectional study in Spanish adults

- According to the results of this study, 82.3 % of Spanish adults ate breakfast daily, 14.1 % did not always have breakfast and 3.6 % skipped breakfast, being more frequently omitting breakfast in men than women
- Dairy products were the most consumed food groups at breakfast (88.9 %), followed by cereals and grains (84.2 %). 26.3 % of the population included protein-rich foods, 19.3 % included juices and nectars and 17.5 % fruits

The scientific journal [PLOS ONE](#) recently published the study 'Breakfast habits and differences regarding abdominal obesity in a cross-sectional study in Spanish adults: The ANIBES study'. The aim of this new scientific work, coordinated by the [Spanish Nutrition Foundation](#) (FEN in Spanish), was to describe the breakfast habits of the Spanish adult population and to assess the possible association between breakfast frequency and the presence of abdominal obesity.

According to Prof. Dr. Rosa M^a Ortega, PhD, Director of the VALORNUT Research Group and Professor of Nutrition at the Complutense University of Madrid, "the majority of adults from the sample of the ANIBES scientific study regularly ate breakfast (82.3 %), 14.1 % did not always have breakfast and 3.6 % skipped breakfast, including in this last group significantly more men than women. In this sense, 2 % did not eat anything for breakfast, and 1.6 % had only coffee or tea for breakfast" explains Prof. Ortega.

Breakfast habits regarding age, sex and lifestyle

"The results of the present work showed that skipping breakfast occurred more frequently in young adults (5.8 % in 18 ± 29 y versus 1.2 % in 60 ± 64 y), in males (4.8 % versus 2.5 % in females), in rural populations (5.2 % versus 1.6 % in semiurban and 4.0 % in urban), in immigrant populations (7.6 % versus 3.4 %), in smokers (5.3 % versus 2.7 %) and in those less physically active (6.9 % versus 2.7 %)" explains Prof. Ortega.

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Regarding to the contribution of breakfast to the daily energy intake, she states that “this represented 16.7 % of total daily energy intake”.

Types of breakfast and most consumed food groups

The study also analyzed the more frequently consumed breakfasts by Spanish adults. In this regard, Prof. Ortega details that “the most frequently consumed food groups at breakfast were dairy products with cereals (34.6 %); dairy products with cereals and fruit (16.8 %) and dairy products with cereals, fruit and protein-rich foods (10.4 %), whereas 10 % of adults only had some dairy product for breakfast”.

In this sense, the most consumed food groups were milk and dairy products (88.9%), especially semiskimmed milk (43.8 %) and less frequently whole milk (28.2 %) and skimmed milk (22.3 %), explains Prof. Ortega.

Following milk and dairy products, “cereals and grains were the second most chose food group at breakfast (84.2 %), in particular, bread (51.6 %), and in lower proportions, cookies (25.7 %), bakery and pastry (20.6 %), and breakfast cereals and cereals bars (12.9 %).” Furthermore, “26.3 % of the population included protein-rich foods, especially sausages and other meat products (20 %) and eggs (7.2 %), 19.3 % included juices and nectars and 17.5 % fruits.”

Regarding to fats, Prof. Ortega explains that “29.2 % of the study population included oils in breakfast, mainly olive oil (25.3 %), while 22.9 % used other fats like butter, margarine, etc.”.

For its part, “sugar was the most widely used sweetener (46.9 %), with no gender differences, although saccharin was more frequently used in women than men” continues Prof. Ortega. Finally, she adds that “the variety at breakfast was significantly higher in men than in women; however, women spent more time on breakfast than men”.

“There were not observed differences in the type of breakfast regarding waist to height ratio (WHtR) categories but, for both total sample and males, the variety of foods at breakfast was lower among those with abdominal obesity. Men with abdominal obesity had less food variety at breakfast and lower consumption of fruit in their first meal of the day comparing with those with no abdominal obesity”, explains Prof. Ortega. “According to the results of this work from the ANIBES scientific study, “the odds of abdominal obesity were 1.5 times higher for those who skipped breakfast when compared to those who always have breakfast”, concludes Prof. Ortega.

Navia B, López-Sobaler AM, Villalobos T, Aranceta-Bartrina J, Gil Á, González-Gross M, et al. Breakfast habits and differences regarding abdominal obesity in a cross-sectional study in Spanish adults: The ANIBES study. PLoS ONE, 2017;12(11):e0188828; doi:<https://doi.org/10.1371/journal.pone.0188828>.

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Technical specifications of the ANIBES Study

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

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

Sample for this study: Individuals aged between 18 and 64 years old (n = 1,617)

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).

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