

## PRESS RELEASE

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The scientific journal *Nutrients* publishes a new research within the ANIBES Study

# A new ANIBES Study analyzes lifestyle patterns and weight status in Spanish adults

- **38% of the sample was overweight and 21.6% was obese, being both rates significantly higher in men than women**
- **This new research identifies four major dietary patterns in the diet of Spanish adults and three lifestyle patterns based on them, as well as time spent per week on physical activity, sedentary time, sleep duration and smoking habits**
- **“Mixed diet – physically active – low sedentary lifestyle” Pattern includes 13% of the study sample, “Not poor diet – low physical activity – low sedentary lifestyle” Pattern represents 63.3%, whereas “Poor diet – low physical activity – sedentary lifestyle” Pattern includes 23.6%**

The scientific journal [Nutrients](#) recently published the study ‘Lifestyle Patterns and Weight Status in Spanish Adults: [The ANIBES Study](#)’, a new scientific research aimed at identifying food patterns in the Spanish adult population and determining macronutrients and micronutrients intake together with energy expenditure, as well as describing existing relationships between socio-demographical factors and different lifestyle patterns and analyzing the potential association of those correlates with excess body weight.

Thus, this study coordinated by the [Spanish Nutrition Foundation](#) (FEN in Spanish) highlights that research of dietary patterns and the potential combination of those with other lifestyles can contribute to identifying effective strategies for the prevention of overweight and obesity among adults.

### Dietary patterns

According to the results of this scientific work, four major dietary patterns in the diet of Spanish adults were identified: ‘Traditional’ Dietary Pattern, ‘Mediterranean’ Dietary Pattern, ‘Snack’ Dietary Pattern and ‘Dairy-sweet’ Dietary Pattern.

“Traditional’ and ‘Mediterranean’ Dietary Patterns had a higher score in the oldest age group (50–64 years), while ‘Dairy-sweet’ Dietary Pattern scores were higher in the young

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adults group (18–30 years). Regarding sex differences, men had higher scores for ‘Snack’ Dietary Pattern, whereas ‘Mediterranean’ and ‘Dairy-sweet’ Dietary Patterns had higher scores among women, adjusted for age and energy intake”, points out **Prof. Javier Aranceta-Bartrina, MD, PhD**, Chairman of the Scientific Committee of the [Spanish Society of Community Nutrition](#) (SENC) and Professor of Community Nutrition at the University of Navarra. Likewise, ‘Mediterranean’ and ‘Traditional’ Dietary Patterns scores were significantly higher in the group of people with a higher educational level”, he adds.

### Lifestyle patterns

Based on the four identified dietary patterns, as well as the analysis of minutes per week spent on vigorous physical activity, moderate physical activity, walking, biking, time spent on activities considered as sedentary time, sleep duration and smoking habits, this new work within the ANIBES Study identified three lifestyle patterns. More specifically, the so-called “Mixed diet – physically active – low sedentary lifestyle” Pattern, “Not poor diet – low physical activity – low sedentary lifestyle” Pattern and “Poor diet – low physical activity – sedentary lifestyle” Pattern were identified.

According to **Dr. Carmen Pérez Rodrigo**, Chairman of the SENC, the first of them (“Mixed diet – physically active – low sedentary lifestyle” Pattern) “includes 13% of the sample, with a higher proportion of the male population (71.9% of men facing 28.1% of women) and in which the age group of those aged 50 to 64 years had a significantly lower proportion. As to consumption of food and beverages individually, this pattern is characterized by higher consumption of fruits, pasta, olive oil, water and alcoholic beverages”.

On the contrary, the second pattern (“Not poor diet – low physical activity – low sedentary lifestyle” Pattern) “includes 63.3% of the sample of all ages (18 to 64 years), with a significantly higher percentage of women (58.5%), as well as a higher proportion of people with a lower educational level”, adds Dr. Pérez Rodrigo.

Lastly, “Poor diet – low physical activity – sedentary lifestyle” Pattern includes 23.6% of the total sample and a higher proportion of young adults aged 18 to 30 years. According to **Prof. Aranceta-Bartrina, MD, PhD**, who has been the main researcher of this research work, “regarding food consumption, people included in this pattern had a high consumption of milk, bakery and pastry, sugars and sweets. Men had a higher consumption of pre-cooked deep fried foods and high alcohol content beverages, whereas women were characterized by a significantly higher consumption of savory snacks, juices sugar sweetened soft drink beverages”.

As stated in this new ANIBES Study, there are different methodological approaches and procedures to identify diet and lifestyle patterns. According to Prof. Aranceta-Bartrina, MD, PhD, “the findings in this study underline the importance of designing and implementing interventions that address multiple health risk habits, considering lifestyle patterns, clustering of risk behaviours and associated determinants. Furthermore, as shown in this study, each individual may follow a variety of unhealthy lifestyle behaviours, which combine to favour weight gain. Likewise, they might also have a mixture of healthy and unhealthy practices”.

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Pérez-Rodrigo C, Gianzo-Citores M, Gil A, González-Gross M, Ortega RM, Serra-Majem LI, Varela-Moreiras G, Aranceta-Bartrina J. Lifestyle Patterns and Weight Status in Spanish Adults: The ANIBES Study. *Nutrients*, 2017;9(6):606; doi:10.3390/nu9060606.

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## Scientific Committee

- **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 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)

**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).

For more information:  
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