

# Lower fat content and exercise for the diet of adolescents

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The prevalence of excess weight and obesity among adolescents and, as a result, the concomitant problems, has increased considerably in recent years. A study by the UPV/EHU has confirmed that, irrespective of the total calories consumed and the physical activity done, an excessive proportion of fat in the diet leads to a greater accumulation of fat in the abdomen. The study has been published in the prestigious journal *Clinical Nutrition* and is part of the HELENA study funded by the European Commission.

"Until now it was thought that even with an unbalanced diet, you somehow compensated for it if you got plenty of physical exercise. In this study we have shown that this is not the case," explained Idoia Labayen, PhD holder in Biology and Tenured Lecturer in Nutrition and Food Science at the UPV/EHU's Faculty of Pharmacy and lead researcher in the study.

The aim was to study the role played by the lipid component, in other words, [dietary fat](#), in the build-up of [abdominal fat](#), in adolescents. The accumulation of abdominal fat is the most harmful in health terms as it increases the risk of suffering from cardiovascular problems, diabetes mellitus, arterial high blood pressure, high cholesterol level, etc. Yet there were no previous pieces of work examining the role of diet composition in the excess of abdominal fat at such a critical development stage as adolescence. "Adolescents are a risk group as far as lifestyles are concerned because they are starting to take their own decisions about what they want and do not want to eat, and they are also

going through a period in which many of them have stopped doing any sport, etc.," pointed out Labayen.

## **Fat, a significant factor**

To study these aims they worked with a sub-sample of 224 adolescents who participated in the HELENA study out of a total of over 3,500, in whom abdominal fat was accurately measured by means of dual-x-ray absorptiometry; dietary habits and physical activity were also measured.

Some authors had proposed that diets with a high fat content could increase the risk of obesity even without increasing the total calorie intake. They were saying that, irrespective of the total calorie intake, an excessive percentage of fat in the diet could lead to a higher percentage of [body fat](#).

The results of this study have confirmed the hypothesis and show that the percentage of dietary fat is significantly linked to an increase in abdominal adiposity and that this relation is also independent of the levels of physical exercise adolescents do. "Despite the fact that physical activity is usually a prevention factor, in this particular case it is not able to counteract it," pointed out the UPV/EHU researcher. So "these results point to dietary fat content as a key risk factor in abdominal adiposity in adolescents, no matter how much [physical exercise](#) they do," stressed Labayen.

The main aim of the HELENA study (HEalthy Lifestyle in Europe by Nutrition in Adolescence) is to obtain information about the cardiovascular health, dietary habits and [physical activity](#) of European [adolescents](#). In 2011 the study received first prize from the European Commission for the best dissemination of the results of a European project. This is borne out by the over 100 publications in international journals of proven prestige which have been inspired by the study.

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