

# Eating fish can reduce the risk of diabetes

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Various hypotheses have been put forward that attempt to explain why the consumption of fish can be related to diabetes. The increase of omega-3 in the cells of the skeletal muscles improves insulin sensitivity. Credit: SINC

A study analyses the dietary patterns of the adult Spanish population with high cardiovascular risk. The results reveal a high consumption of both red meat and fish. However, whilst eating lots of cured meats is associated with greater weight gain and a higher obesity rate, the consumption of fish is linked to lower glucose concentrations and a smaller risk of developing diabetes.

Mercedes Sotos Prieto, lead author of the study which forms part of the Predimed study (Prevention with a Mediterranean Diet) and researcher at the University of Valencia explains how "in Mediterranean countries, [consumption](#) of foods that typically form part of the diet here has decreased in recent decades. The consumption of saturated fats mainly

from red meats and industrial baking has increased and this is really worrying."

Conducted in the Valencian Community on 945 people (340 men and 605 women) between 55 and 80 years of age and with a high cardiovascular risk, the aim of the study was to understand [dietary patterns](#) in terms of meat and fish consumption. It also sought to understand the correlation between the Mediterranean diet and its association with cardiovascular risk factors.

The results were published in the *Nutrición Hospitalaria* journal and show that the studied Mediterranean population eat a large amount of red meat and fish. However, the consumption of fish is associated with a decreased prevalence of diabetes and lower glucose concentrations whereas the consumption of red meat, especially cured meats is related to increased weight gain and obesity.

The researcher points out that "the red meat consumption of the sample population reaches an average of once a day, which is high in comparison to dietary recommendations. This could be influenced by many weight-loss diets which recommend eating grilled veal."

Eating red meat in excess is linked to higher [cardiovascular risk](#), higher blood pressure, diabetes and a moderate decrease in life expectancy mainly due to cancer or heart disease. In contrast, fish appears in the Mediterranean diet and has health benefits for the heart.

Despite being a cross-sectional study that does not determine a causal effect, its authors confirm that there are many similar studies where the consumption of fish, both white and, even more so oily fish, is associated with a lower risk of developing diabetes type 2.

"Various hypotheses have been put forward that attempt to explain why

the consumption of fish can be related to diabetes," they explain. "The increase of omega-3 in the cells of the skeletal muscles improves insulin sensitivity."

"It is important to understand the dietary patterns of the Spanish population in order to learn whether dietary habits are changing. We should therefore strengthen dietary education," outlines Mercedes Sotos Prieto, who goes on to say that "we ought to establish dietary intervention programmes so that we do not stray from the Mediterranean diet. In other words, such a diet involves decreasing the amount of [red meat](#) that we eat and maintaining equal levels of fish consumption."

## Gender Differences

The high intake of saturated fats from red and cured meat consumption (7.4 +/- 4.7 times a week) was more frequent in men. Women proved to eat more white meat, especially chicken and turkey.

As for [fish](#) consumption (4.5 +/- 2.6 times a week), no significant differences were found between men and women. In general, women scored higher for "healthy dietary patterns" or "healthy diets" compared to men.

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