

Pterostilbene, a molecule similar to resveratrol, as a potential treatment for obesity

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The Nutrition and Obesity research group. Credit: UPV/EHU

In collaboration with the United States Department of Agriculture, researchers in the UPV/EHU's 'Nutrition and Obesity' Group, which belongs to the Spanish Biomedical Research Centre in Physiopathology of Obesity and Nutrition of the Carlos III Institute of Health, have observed in animal models that pterostilbene reduces the build-up of body fat, which could reduce the risk of developing other diseases like

diabetes.

Obesity is a chronic disease caused by a whole range of factors and defined as an excessive accumulation of [body fat](#). It is a metabolic disease very prevalent in developed countries and a significant risk factor for developing certain pathologies and alterations like insulin resistance, diabetes, fatty liver, alterations in plasma lipids and hypertension, among others.

The traditional guidelines for preventing and treating [obesity](#) include following a low-calorie diet and doing [moderate physical activity](#) over the long term. However, the effectiveness of these strategies is limited and the success achieved is not always the desired one. In this context, including functional ingredients in the diet opens up new treatment perspectives. An example of these ingredients are [phenolic compounds](#), one of which is pterostilbene.

Pterostilbene is present in small amounts in a whole range of foods and beverages like grapes, blueberries, peanuts and red wine and widely consumed by humans. Right now there are few studies analysing the effects of this molecule and they mainly focus on cancer. The study conducted in this research is the first pre-clinical piece of work that analyses the effects of this phenolic compound on obesity in the animal model. In this model, pterostilbene cuts body fat due to a reduction in [fat synthesis](#) in adipose tissue and an increase in its oxidation in the liver.

These promising results, which have resulted in a patent, could be the starting point for conducting future studies on intervention in humans and designed to confirm this anti-obesity effect.

More information: Gómez-Zorita S, Fernández-Quintela A, Lasa A, Aguirre L, Rimando AM, Portillo MP. Pterostilbene, a dimethyl-ether derivative of resveratrol, reduces fat accumulation in rats fed an

obesogenic diet. *Journal of the Agricultural and Food Chemistry*, 2014, 62(33), pp 8371-8378.

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