

Monounsaturated fats: olive oil is better than duck!

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According to two recent studies, only the consumption of monounsaturated fats originating from plants is associated with decreases in the risks of cardiovascular disease and of premature death.

A recent advisory published by a group of experts from the American Heart Association concluded that a decrease in the intake of saturated fats, and its replacement by unsaturated fats, represents the optimal combination for decreasing the incidence of cardiovascular diseases in the population¹.

More explicitly, this involves decreasing, as much as possible, the consumption of animal products (rich in saturated fats) as well as increasing the consumption of plant-based foods, particularly those containing unsaturated fats (mono- and polyunsaturated).

The presence of monounsaturated fats somewhat muddles this issue because these fats are ubiquitous in our diet, being found both in plants (oils, nuts, some fruits such as avocados) and in foods of animal origin (meats, dairy products). Studies indicate that this type of fat has a very positive effect on cardiovascular health: in the randomized PREDIMED study, for example, it was found that people whose diet was rich in olive oil or in nuts (two sources of monounsaturated fats) had about 30% less risk of experiencing a cardiovascular event (heart attack or stroke)².

The best source of monounsaturated fats is unquestionably olive oil (73% of all its fats), but certain animal fats (duck fat in particular) also contain appreciable quantities of monounsaturated fats (e.g. 50% of all fats). Based on the positive results that have been seen with olive oil, it has been inferred that this characteristic may mean that consumption of certain animal fats, notably those of duck, could lead to similar health benefits in terms of preventing cardiovascular disease.

PLANT SOURCES BETTER THAN ANIMAL

Two studies performed by a team of researchers at Harvard University have provided some resolution to the debate surrounding the consumption of plant vs animal monounsaturated fats.

In these studies, performed by following over 90,000 men and women for 22 years (1990-2012), the researchers were able, for the first time, to distinguish between the consumption of plant-based monounsaturated fats and those present in animal products and have separately assessed their effects on the risks of coronary disease and on premature death.

This approach allowed them to determine that an elevated consumption of monounsaturated fats of plant origin was associated with a decrease (17%) in the risk of a coronary event,



whereas, inversely, the consumption of monounsaturated fats from animal origins was associated with a slight increase (5-10%) in this risk³. Similarly, individuals who regularly consumed monounsaturated fats from plants had a risk of premature death that was reduced by 16%, in contrast to the 16% increase for individuals who consumed large quantities of monounsaturated fats of animal origin. This protection afforded by monounsaturated fats from plant origin is observed both for deaths linked to cardiovascular diseases as well as for those due to cancer.

These observations thus strongly suggest that not all monounsaturated fats are created equal, and that those derived from plants are better for one's health. According to the authors, it is likely that this difference is explained by the simultaneous presence of saturated fats in the foods derived from animals which counteract the beneficial effects of monounsaturated fats. Consequently, the best way to take advantage of the protective effects of monounsaturated fats is to increase the consumption of plants which are good sources of these fats (nuts, for example) and to use olive oil as the principal source of fat, which largely forms the basis of the Mediterranean diet.

These observations also show that it is simplistic to consider a food solely in terms of its content of one specific molecule, in this case monounsaturated fats. We eat entire foods and not just isolated molecules, so that even if animal-derived foods contain monounsaturated fats, they are lacking the many phytoprotective compounds present in plants which, collectively, influence a host of processes involved in the development of chronic diseases. In terms of preventing these chronic diseases, the most important thing is to increase the consumption of plants, not only because their forms of carbohydrates and fats are optimal for health but also because they are the only sources of anti-inflammatories, antioxidants and anti-cancer compounds capable of slowing the arrival of diseases as serious as cancer and cardiovascular diseases.

- (1) Sacks FM et al. Dietary fats and cardiovascular disease: A presidential advisory from the American Heart Association. *Circulation* 2017; 136: e1-e23.
- (2) Estruch R et al. Primary prevention of cardiovascular disease with a mediterranean diet supplemented with extra-virgin olive oil or nuts. *N Engl J Med* 2018; 378:e34.
- (3) Zong G et al. Monounsaturated fats from plant and animal sources in relation to risk of coronary heart disease among US men and women. *Am. J. Clin. Nutr.* 2018; 107: 445-453.
- (4) Guasch-Ferré M et al. Associations of monounsaturated fatty acids from plant and animal sources with total and cause-specific mortality in two US prospective cohort studies. *Circ. Res.* 2019; 124: 1266-1275.