

“Healthy” Processed Foods?

High ultra-processed food intake doubles cardiovascular risk

Ultra-processed foods make up over half (58%) of all calories in the average American diet and are increasingly being consumed around the world (see below for the definition of an ultra-processed food). This analysis followed 3003 adults from the Framingham Offspring Study who were free from cardiovascular disease at baseline. The subjects were followed for 18 years and the relationship between ultra-processed foods and cardiovascular disease was analyzed. Each serving of ultra-processed foods increased the incidence of cardiovascular disease by 7% and increased the risk of coronary heart disease by 9%. The highest intake group had double the incidence of cardiovascular and coronary heart disease when compared to the lowest intake group.



Abstract

- **Background:** Ultra-processed foods provide 58% of total energy in the U.S. diet, yet their association with cardiovascular disease (CVD) remains understudied.
- **Objectives:** The authors investigated the associations between ultra-processed foods and CVD incidence and mortality in the prospective Framingham Offspring Cohort.
- **Methods:** The analytical sample included 3,003 adults free from CVD with valid dietary data at baseline. Data on diet, measured by food frequency questionnaire, anthropometric measures, and sociodemographic and lifestyle factors were collected quadrennially from 1991 to 2008. Data regarding CVD incidence and mortality were available until 2014 and 2017, respectively. Ultra-processed foods were defined according to the NOVA framework. The authors used Cox proportional hazards models to determine the multivariable association between ultra-processed food intake (energy-adjusted servings per day) and incident hard CVD, hard coronary heart disease (CHD), overall CVD, and CVD mortality. Multivariable models were adjusted for age, sex, education, alcohol consumption, smoking, and physical activity.
- **Results:** During follow-up (1991 to 2014/2017), the authors identified 251, 163, and 648 cases of incident hard CVD, hard CHD, and overall CVD, respectively. On average, participants consumed 7.5 servings per day of ultra-processed foods at baseline. Each additional daily serving of ultra-processed foods was associated with a 7% (95% confidence interval [CI]: 1.03 to 1.12), 9% (95% CI: 1.04 to 1.15), 5% (95% CI: 1.02 to 1.08), and 9% (95% CI: 1.02 to 1.16) increase in the risk of hard CVD, hard CHD, overall CVD, and CVD mortality, respectively.
- **Conclusions:** The current findings support that higher consumption of ultra-processed foods is associated with increased risk of CVD incidence and mortality. Although additional research in ethnically diverse populations is warranted, these findings suggest cardiovascular benefits of limiting ultra-processed foods.

Poor diet is a major modifiable risk factor for heart disease. Most cardiovascular guidelines emphasize the intake of fruits, vegetables, whole grains, and nuts but they don't emphasize a reduction in highly processed (ultra-processed) foods. Ultra-processed foods are confections of substances extracted from whole foods (oils, fats, starches, flours, sugars), typically combined with additives, to make them edible, palatable, and habit-forming. They have no real resemblance to whole foods, although they may be shaped, labeled, and marketed to seem wholesome and 'fresh'. Ultra-processed foods are designed to be ready-to-eat (sometimes with the addition of liquid such as milk) or ready-to-heat and are often consumed alone or in combination (such as savory snacks with soft drinks, bread with burgers). We often grab these when we are "on the run" as they are quick and convenient. Many foods marketed specifically as "healthy" are actually ultra-processed including breakfast cereals, cereal or "nutrition" bars, and sports drinks.

Which foods are the worst? Bread is the winner. It is made from bleached white flour (fiber removed) and has a high glycemic index. Other dubious winners include processed meats (higher cardiovascular disease and colon cancer), salty snacks (excess sugar and salt, low fiber, crunchy and addicting), and low-calorie soft drinks (artificial colors, preservatives, non-nutritive sweeteners). Non-nutritive sweeteners have been associated with a higher incidence of stroke due to a breakdown in the blood-brain barrier.

What should we look for in our food? We should strive to eat things that are found in nature and come in the same package Mother Nature put them in. Fresh frozen fruits and vegetables are fine and may be better than some of the off-season “fresh” fruits and vegetables in our supermarkets. If we need things that are quick and easy, look for the smallest number of ingredients possible and nothing with multi-syllable ingredients. This study only looked at cardiovascular disease, but obviously obesity and insulin resistance are big problems with these foods as well.

Ultra-Processed Foods and Incident Cardiovascular Disease in the Framingham Offspring Study
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