

German scientists discover new type of apple juice improves heart health

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Scientists at Hochschule Geisenheim University in Germany have discovered a new type of apple juice that has the potential to improve heart health by increasing blood flow. They used a novel squeezing method called a spiral filter press to maximize the polyphenols in apple juice. This process actively removes oxygen by using a vacuum-driven method and ensures that oxygen is excluded from all other processing steps to reduce nutrient deterioration.

According to a study published in Food Research International, this new method increases polyphenol content by four times compared to regular apple juice. Polyphenols are natural plant compounds found in fruits, red wine, and cocoa that have various health benefits for the heart and brain. A 280 ml serving of the new apple juice would provide 100 per cent of the ideal intake for a key group of polyphenols called flavan-3-ols, which help promote healthy blood flow. An international consortium of scientists proposed an ideal intake of 400-600 milligrams per day for cardiovascular health in 2022.

The British Heart Foundation estimates that 7.6 million people in the UK have heart or circulatory diseases. Meanwhile, data from the 2021 census show that 32 per cent of adults suffer from high blood pressure (hypertension), and 29 per cent of those are undiagnosed, equating to approximately 4.2 million adults with undiagnosed hypertension.

Professor Ralf Schweiggert, Lead author of the paper, said, "Apple juice is already a source of polyphenol compounds, but you would need to drink several glasses to reach the levels recommended by scientists for heart health effects. The new juicing method that we've investigated takes the polyphenol content to a new level by minimising nutrient loss typically seen during juicing."

Stefan Dussling, Co-researcher of the study, added, "Nutrient losses are commonly due to the presence of oxygen, which quickly degrades some of the nutrients in apple juice like flavan-3-ols or vitamin C. This would happen when we juice apples at home or buy a ready-made product. We hope that the new juicing method will be used more widely in the future to help people get more of these beneficial natural compounds simply by drinking one glass of juice."