An apple cider vinegar drink a day? New study shows it might help weight loss

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Made from fermented apples and naturally high in acetic acid, apple cider vinegar has been popular in recent years for its purported health benefits—from antibacterial properties to antioxidant effects and potential for helping manage blood sugars.

Its origins as a health tonic stretch much further back. Hippocrates used it to treat wounds, fever and skin sores.

An experimental study, released today, looks into whether apple cider vinegar could be effective for weight loss, reduce blood glucose levels and reduce blood lipids (cholesterol and triglycerides).

The results suggest it could reduce all three—but it might not be as simple as downing an apple cider vinegar drink a day.

**What did they do?**

A group of scientists in Lebanon did a double-blinded, randomized, clinical trial in a group of overweight and obese young people aged from 12–25 years.

Researchers randomly placed 30 participants in one of four groups. The participants were instructed to consume either 5, 10 or 15ml of apple cider vinegar diluted into 250ml of water each morning before they ate anything for 12 weeks. A control group consumed an inactive drink (a placebo) made (from lactic acid added to water) to look and taste the same.

Typically this sort of study provides high quality evidence as it can show cause and effect—that is the intervention (apple cider vinegar in this case) leads to a certain outcome. The study was also double-blinded,
which means neither the participants or the scientists involved with collecting the data knew who was in which group.

**So, what did they find?**

After a period of three months apple cider vinegar consumption was linked with significant falls in body weight and body mass index (BMI). On average, those who drank apple cider vinegar during that period lost 6–8kg in weight and reduced their BMI by 2.7–3 points, depending on the dose. They also showed significant decreases in the waist and hip circumference.

The authors also report significant decreases in levels of blood glucose, triglycerides, and cholesterol in the apple cider groups. This finding echoes previous studies. The placebo group, who were given water with lactic acid, had much smaller decreases in weight and BMI. There were also no significant decreases in blood glucose and blood lipids.

From animal studies, it is thought the acetic acid in apple cider vinegar may affect the expression of genes involved in burning fats for energy. The new study did not explore whether this mechanism was involved in any weight loss.

**Is this good news?**

While the study appears promising, there are also reasons for caution.

Firstly, study participants were aged from 12 to 25, so we can't say whether the results could apply to everyone.

The statistical methods used in the study don't allow us to confidently say the same amount of weight loss would occur again if the study was done
And while the researchers kept records of the participants' diet and exercise during the study, these were not published in the paper. This makes it difficult to determine if diet or exercise may have had an impact. We don't know whether participants changed the amount they ate or the types of food they ate, or whether they changed their exercise levels.

The study used a placebo which they tried to make identical in appearance and taste to the active treatment. But people may still be able to determine differences. Researchers may ask participants at the end of a study to guess which group they were in to test the integrity of the placebo. Unfortunately this was not done in this study, so we can't be certain if the participants knew or not.

Finally, the authors do not report whether anyone dropped out of the study. This could be important and influence results if people who did not lose weight quit due to lack of motivation.

**Any other concerns?**

Apple cider vinegar is acidic and there are concerns it may erode tooth enamel. This can be a problem with any acidic beverages, including fizzy drinks, lemon water and orange juice.

To minimize the risk of acid erosion some dentists recommend the following after drinking acidic drinks:

- rinsing out your mouth with tap water afterwards
- chewing sugar-free gum afterwards to stimulate saliva production
- avoiding brushing your teeth immediately after drinking because it might damage the teeth's softened top layer
• drink with a straw to minimize contact with the teeth.

**Down the hatch?**

This study provides us with some evidence of a link between apple cider vinegar and weight loss. But before health professionals can recommend this as a weight loss strategy we need bigger and better conducted studies across a wider age range.

Such research would need to be done alongside a controlled background diet and exercise across all the participants. This would provide more robust evidence that apple cider vinegar could be a useful aid for weight loss.

Still, if you don't mind the taste of apple cider vinegar then you could try drinking some for weight loss, alongside a healthy balanced and varied dietary intake. This study does not suggest people can eat whatever they like and drink apple cider vinegar as a way to control weight.

**More information:** Rony Abou-Khalil et al, Apple cider vinegar for weight management in Lebanese adolescents and young adults with overweight and obesity: a randomised, double-blind, placebo-controlled study, *BMJ Nutrition, Prevention & Health* (2024). [DOI: 10.1136/bmjnph-2023-000823](https://doi.org/10.1136/bmjnph-2023-000823)

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