

Apple Cider Vinegar

Over the centuries, vinegar has been used for countless purposes: making pickles, killing weeds, cleaning coffee makers, polishing armor, and dressing salads. It's also an ancient folk remedy, touted to relieve just about any ailment you can think of.

In recent years, apple cider vinegar has been singled out as an especially helpful health tonic. So it's now sold in both the condiment and the health supplement aisles of your grocery store. While many of the folk medicine uses of vinegar are unproven (or were disproved), a few do have a medical research backing them up. Some small studies have hinted that apple cider vinegar could help with several conditions, such as diabetes and obesity.

So does consuming apple cider vinegar make sense for your health? Or is vinegar best used for cleaning stains and dyeing Easter eggs? Here's a rundown of the facts.

What Is Apple Cider Vinegar?

Vinegar is a product of fermentation. This is a process in which sugars in a food are broken down by bacteria and yeast. In the first stage of fermentation, the sugars are turned into alcohol. Then, if the alcohol ferments further, you get vinegar. The word comes from the French, meaning "sour wine." While vinegar can be made from all sorts of things -- like many fruits, vegetables, and grains -- apple cider vinegar comes from pulverized apples.

The main ingredient of apple cider vinegar, or any vinegar, is acetic acid. However, vinegars also have other acids, vitamins, mineral salts, and amino acids.

Apple Cider Vinegar: Cure for Everything?

While long used as a folk remedy, apple cider vinegar became well known in the U.S. in the late 1950s, when it was promoted in the best-selling book *Folk Medicine: A Vermont Doctor's Guide to Good Health* by D. C. Jarvis. During the alternative medicine boom of recent years, apple cider vinegar pills have become a popular dietary supplement.

Look on the back of a box of supplements -- or on the Internet or in the pages of any one of the many books on vinegar and health -- and you'll find some amazing claims. Apple cider vinegar is purported to treat numerous diseases, health conditions, and annoyances. To name a few, it's supposed to kill head lice, reverse aging, ease digestion, and wash "toxins" from the body.

Most of these claims have no evidence backing them up. Some -- like vinegar's supposed ability to treat lice or warts -- *have* actually been studied, and researchers turned up nothing to support their use. Other

claims have been backed up by studies, but with a catch: vinegar may work, but not as well as other treatments. For instance, while vinegar is a disinfectant, it doesn't kill as many germs as common cleaners. And while vinegar does seem to help with jelly fish stings -- an old folk remedy -- hot water works better.

Scientific Evidence of Apple Cider Vinegar Benefits

But there are some medical uses of vinegar that do have promise, at least according to a few studies. Here's a rundown of some more recent ones.

- **Diabetes.** The effect of vinegar on blood glucose levels is perhaps the best-researched and the most promising of apple cider vinegar's possible health benefits. Several studies have found that vinegar may help lower glucose levels. For instance, one 2007 study of 11 people with type 2 diabetes found that taking two tablespoons of apple cider vinegar before bed lowered glucose levels in the morning by 4%-6%.
- **High cholesterol.** A 2006 study showed evidence that vinegar could lower cholesterol. However, the study was done in rats, so it's too early to know how it might work in people.
- **Blood pressure and heart health.** Another study in rats found that vinegar could lower high blood pressure. A large epidemiological study also found that people who ate oil and vinegar dressing on salads five to six times a week had lower rates of heart disease than people who didn't. However, it's far from clear that the vinegar was the reason.
- **Cancer.** A few laboratory studies have found that vinegar may be able to kill cancer cells or slow their growth. Epidemiological studies of people have been confusing. One found that eating vinegar was associated with a decreased risk of esophageal cancer. Another associated it with an *increased* risk of bladder cancer.
- **Weight Loss.** For thousands of years, vinegar has been used for weight loss. White vinegar (and perhaps other types) might help people feel full. A 2005 study of 12 people found that those who ate a piece of bread along with small amounts of white vinegar felt fuller and more satisfied than those who just ate the bread.

While the results of these studies are promising, they are all preliminary. Many were done on animals or on cells in a lab. The human studies have been small. Before we will truly know whether vinegar has any health benefits, much larger studies are needed.

How Should Apple Cider Vinegar Be Used?

Since apple cider vinegar is an unproven treatment, there are no official recommendations on how to use it. Some people take two teaspoons a day (mixed in a cup of water or juice.) A tablet of 285 milligrams is another common dosage.

Apple cider vinegar is also sometimes applied to the skin or used in enemas. The safety of these treatments is unknown.

What Are the Risks of Apple Cider Vinegar?

On the whole, the risks of taking occasional, small amounts of apple cider vinegar seem low. But using apple cider vinegar over the long term, or in larger amounts, could have risks. Here are some things to keep in mind.

- **Apple cider vinegar is highly acidic. The main ingredient of apple cider vinegar is acetic acid. As the name suggests, it's quite harsh. Apple cider vinegar should always be diluted with water or juice before swallowed. Pure apple cider vinegar could damage the tooth enamel and the tissues in your throat and mouth. One study found a woman who got an apple cider vinegar supplement stuck in her throat. She seemed to have suffered lasting damage to her esophagus. Vinegar has been known to cause contact burns to the skin.**
- **Long-term use of apple cider vinegar could cause low potassium levels and lower bone density. If you already have low potassium or osteoporosis, talk to your doctor before using apple cider vinegar.**
- **Apple cider vinegar could theoretically interact with diuretics, laxatives, and medicines for diabetes and heart disease.**
- **If you have diabetes, check with your doctor before using apple cider vinegar. Vinegar contains chromium, which can alter your insulin levels**

What Are the Risks of Apple Cider Vinegar?

Using apple cider vinegar supplements -- instead of the liquid itself -- adds another layer of risk. You just can't be sure what you're really getting. Unlike medicines, supplements are not regulated by the FDA. They aren't routinely tested for effectiveness or even basic safety. A 2005 study looked at the ingredients of eight different brands of apple cider vinegar supplements. The researchers found that:

- **The ingredients listed on the box did not reflect the actual ingredients.**
- **The ingredients varied a great deal between different brands.**
- **The recommended dosages varied a great deal between brands.**

Most disturbing, the chemical analysis of these samples led the researchers to doubt whether any of these brands actually contained any apple cider vinegar at all.

Should I Use Apple Cider Vinegar?

The answer depends on how you want to use apple cider vinegar. As a salad dressing, you should be fine. But taken as a daily medical treatment, it could be a little more risky. Yes, some studies of apple cider vinegar are intriguing. But a lot more research needs to be done. Right now, there is not enough evidence that apple cider vinegar -- or any vinegar -- has any health benefit for any condition. Since the benefits are unknown, so are the risks.

If you're thinking about trying apple cider vinegar, talk to your doctor first. It's always worth getting an expert's advice. Your doctor can also make sure that the apple cider vinegar won't affect other health conditions or the effectiveness of the medicines you take. Trying to control a serious medical condition on your own with an unproven treatment is both unwise and dangerous.

P Manohar Bhat from Mumbai, Maharashtra, India replies: "Best place to Apple Cider Vinegar in Mumbai....

Kings Plaza, Maker Arcade, Cuffe Parade

Alfa, Irla, Vile Parle (W) 26719696

Haiko Supermarket, Powai

Crawford Market

ACV is available in 16oz (~500ml) , 32oz (~1000ml) and 1g (~3.8l)

Insist on world's best at Bragg Organic/Natural ACV at Alfa, Irla or the next best American Garden brand... Don't take Heinz as it is flavoured without "mother" sediment available with organic/natural versions."

Aparna from Bangalore, India writes: "Where to Buy Apple Cider Vinegar in Bangalore, India:

Hi all, ACV can be found in any Niligiris shop in Bangalore. They have the American Gardens brand. And 500ml of that would cost u 99 bucks."