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Features

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The Benefits of Apple Cider Vinegar to Dogs



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Apple cider vinegar and other vinegars have many uses for healthy dogs.

By CJ Puotinen; photos by Stephen Nagy

People have been using vinegar for thousands of years, and while most of it goes into salads and condiments, vinegar can be used as a household cleanser, cosmetic aid, and health treatment. Many dog lovers add vinegar to their pets' food or apply it topically to their best friends. Advocates call vinegar, especially unpasteurized organic apple cider vinegar, a wonder food. Is vinegar really a health-improving supplement, a natural preservative, a nontoxic cleaning product, a disinfectant, a source of important nutrients, and an effective topical treatment for canine ailments?

Some of the claims made by vinegar proponents are supported by research while others are not. Here are some facts about apple cider vinegar (ACV) and other vinegars to help you decide whether and when to use it for yourself and your dog.

What is Vinegar?

Its name comes from the Latin words *vinum* (which means wine) and *acer* (which means sour). Vinegar can be made from any liquid that contains sugar, which includes everything from fruit juice to plain sugar water. Within a few days of being exposed to air, naturally occurring or added yeasts cause the sugar to ferment, turning it into alcohol. If not interrupted, fermentation continues in response to naturally occurring or added acetic acid bacteria until all of the alcohol becomes acetic acid. This is how wine, beer, and ale are used to create wine and malt vinegars. Some vinegar factories shorten the fermentation process to just two or three days by using modern bacterial cultures and special pumps, but traditional vinegars valued for their culinary use are still made the old-fashioned way.

However it's made, vinegar has a distinctive fragrance and a low pH. On the pH scale, water is neutral at 7.0, tomato juice is acid at 4.1, distilled white vinegar is more acid at 2.4, and the pH of lemon juice is 2.2. Apple cider vinegar



tends to be less acidic, with a pH between 4.25 and 5.

One of the earliest known vinegars was made 5,000 years ago in Babylon from fermented dates. In ancient Rome, fermented rye, figs, grapes, and dates were popular ingredients. Today's vinegars are made from corn, barley, and other grains; grapes; apples; and other fruits.

According to the Vinegar Institute, an international trade association representing vinegar manufacturers and bottlers, worldwide vinegar sales are now approaching \$225 million annually, with the fastest growth in organic vinegars. Nearly half of the vinegar sold in North America is balsamic, with red wine vinegar the next most popular at 13 percent and cider vinegar tied with rice wine vinegar at 8 percent each.

Only 1 percent of sales go to distilled white vinegar. However, distilled white (usually made from corn) and distilled apple cider are the most familiar supermarket vinegars. These inexpensive vinegars are filtered and pasteurized to make them sparkling clear. Better-quality wine, cider, or malt vinegars are often aged for years in wooden barrels to improve their flavor and left unfiltered and unpasteurized.

To vinegar connoisseurs, there's a world of difference between distilled or rapidly produced vinegar and traditionally made vinegars that are brewed slowly in small batches and aged to perfection. Some gourmet vinegars cost over \$200 per 100 milliliters (about 7 tablespoons).

Apple Cider Vinegar

Traditionally made organic apple cider vinegar is widely sold and far less expensive than gourmet balsamics, but it too is valued for its culinary uses. Some popular brands, such as Bragg, Spectrum, Eden Organics, Solana Gold Organics, and Dynamic Health, are made from organic apples that are crushed to make cider, then aged in wooden barrels.

Because it is raw and unfiltered, this vinegar is not clear like distilled vinegars. Instead, it contains a dark, cloudy substance that resembles dusty cobwebs. This substance, called the "mother" or "mother veil," consists of naturally occurring pectin and apple residues whose protein molecules are connected in strand-like chains. As the Bragg website explains, "The presence of the mother shows that the best part of the apple has not been destroyed. Vinegars containing the mother contain enzymes that other vinegars may not contain due to over-processing, filtration, and overheating."

Apple cider vinegar is usually light golden brown or orange in color. While the acidity of homemade cider vinegar varies, most manufacturers maintain a 5-percent acetic acid level, which is recommended for the safe pickling and preserving of low-acid foods.

Biochemistry Benefits

Vinegar has been used medicinally since ancient times. Roman soldiers valued vinegar and water as an antiseptic health drink. Hippocrates, the famous Greek physician, prescribed vinegar as medicine.

Advocates credit apple cider vinegar as a nutritional powerhouse, containing an array of vitamins, minerals, and bioflavonoids, but this is inaccurate. The USDA considers all of those nutrients as absent from ACV, with one exception: potassium. Raw cider vinegar contains about 11 mg potassium per tablespoon (the Daily Reference Value for potassium is 4,600 mg).

Alternate generous sprays of hydrogen peroxide and vinegar for a very effective, inexpensive, and nontoxic antibacterial, anti-viral food and kitchen disinfectant.

One way in which vinegar promotes health is through its effect on digestion. By itself vinegar may not contain significant vitamins and minerals, but when combined with foods that do, it helps the body assimilate those nutrients. Acetic acid, like other acids, can increase the body's absorption of calcium and other minerals. Some nutrition experts, including Donna Gates, author of the Body Ecology Diet, recommend



sipping 1 teaspoon apple cider vinegar in a glass of warm water while eating protein in order to stimulate the body's production of hydrochloric acid for enhanced digestion.

Vinegar has important antiseptic properties that help prevent the growth of harmful bacteria and viruses in the digestive tract. As a bonus, it does not interfere with the body's beneficial bacteria, which are the immune system's first line of defense against harmful microbes.

In 2010, the Annals of Nutrition and Metabolism published a study showing that vinegar's antiglycemic properties reduce blood sugar levels that rise after meals in healthy adults. These results agree with a 2006 Japanese study that showed that the consumption of vinegar with food prevented blood sugar level increases.

A 2005 study at Arizona State University tested patients with type 2 diabetes, prediabetes, or no symptoms of diabetes, as they consumed a breakfast containing 87 grams of carbohydrates just after drinking a glass of water containing either 2 tablespoons apple cider vinegar or a placebo. Vinegar consumption slowed the rise of blood sugar in all three groups, up to 34 percent. Based on studies done with rats or in test tubes, the researchers speculate that vinegar interferes with the absorption of high-carbohydrate foods.

No one is suggesting that vinegar cures diabetes, but the studies mentioned above encourage researchers to further examine the effect of vinegar on blood sugar levels.

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