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Our February 2026 Newsletter for Healthy Living

Why Go Organic?

Fresh produce, whether organic or conventionally grown, is one of the healthiest food choices you can make. Organic produce gains an edge, however, because it tends to be more nutritious, tastes better and, importantly, does not contain pesticide residues like conventional produce does. In fact, the No. 1 reason people go organic is to avoid pesticides and other chemicals, and 40% of Americans consume organic food either all the time or occasionally.

Since 2004, the Environmental Working Group (EWG) has released a "Dirty Dozen" list for produce, based on testing data from the Department of Agriculture and the Food and Drug Administration. These are the foods most heavily contaminated with pesticides. They also release a "Clean 15" list of the produce with the least amount of pesticides. The USDA and FDA use slightly different techniques when testing produce for contaminants. The USDA peels or scrubs and washes produce before testing, whereas the FDA only removes surface dirt.

The fact that washed and/or peeled produce still test positive for pesticides is telling, to say the least. This means you simply cannot avoid these toxic chemicals by being diligent about rinsing and peeling your fruits and vegetables. The only way to avoid them, really, is to buy organic produce, as organic standards forbid the use of most synthetic and manmade pesticides. As for why you want to avoid both pesticides and herbicides, there's ample evidence showing that agricultural chemicals can have adverse health effects — especially in children — and that these negative impacts may even cancel out some of the health benefits you'd normally expect from fresh fruit and vegetables.

What's more, an investigation by the EWG published in 2020 concluded that the EPA has, in most cases, failed to take children into account when setting allowable limits for pesticides. As a result, children who eat conventional produce may be exposed to unsafe levels of these chemicals. As reported by the EWG: *"Research from Harvard University shows that consuming fruits and vegetables with high levels of pesticide residues may lessen the benefits of fruit and vegetable consumption, including protection against cardiovascular disease[6] and mortality.[7] A recent EWG investigation[8] published in the peer-reviewed journal Environmental Health[9] found that the EPA has failed to adequately protect children from pesticides For almost 90% of the most common pesticides, the agency has neglected to apply the Food Quality Protection Act–mandated children's health safety factor to the allowable limits. The threats pesticides pose to children's health have been known since at least 1993 — 30 years ago — when the National Academies of Science published a landmark study[10] warning of inadequate oversight. The American Academy of Pediatrics recommends parents concerned about their children's exposure to pesticides consult EWG's Shopper's Guide. Choosing organic fruits and vegetables can almost immediately reduce the amounts of residues in a person's body, because the harmful chemicals used on non-organic, or conventional, produce are no longer a factor."*

"Choosing organic fruits and vegetables can almost immediately reduce the amounts of residues in a person's body…"

The 2025 shopper's guide includes data from over 45,000 samples of 46 fruits and vegetables, revealing the presence of 251 different pesticides in total, including some that have already been banned due to their potential health effects. In all, nearly 75% of nonorganic fresh produce sold in the U.S. contain residues of one or more potentially harmful pesticides. A total of 210 different pesticides were detected on the fruits and vegetables on the Dirty Dozen list, and of those, more than 50 were found on every crop on the list with the exception of cherries. At least one sample of every type of produce on the Dirty Dozen list had 13 or more pesticides. Kale, collard, mustard greens, bell peppers and hot peppers all had detectable levels of 101 to 103 different pesticides.

Strawberries have remained near the top for several years, and that hasn't changed. They're still the most heavily contaminated produce out there.Here's the full 2025 Dirty Dozen list, in order of most contaminated to least contaminated: spinach, strawberries, kale/collard/mustard greens, peaches, cherries, nectarines, pears, apples, blackberries, blueberries and potatoes.

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What's Inside This Issue

Care for Your Heart

"...a daily glass of beetroot juice could be one way to get inorganic nitrate... to interrupt harmful inflammation."

Research funded by the British Heart Foundation and presented to the British Cardiovascular Society showed how beets may reduce harmful inflammation in people who have coronary heart disease. There's a lot to be said for this humble red root. Archaeological evidence shows that beets were a part of the diet dating back to the Third Dynasty and Greek records show beets were cultivated around 300 BC.

Originally, it was the beet greens that were prized as food and not the fibrous roots. Ancient Romans, Greeks and Italians believed that beets were an aphrodisiac. The roots were occasionally used for medicine but not consumed regularly until 1542. The plant is easy to grow and whether it's juiced, cooked, pickled or fermented, beets have a wide range of health benefits.

Although packed with nutrients, up to 8% of each beetroot is simple sugar, so people who struggle with insulin resistance should partake carefully. In 1747, a chemist discovered how to extract the sucrose from beets, leading to the development of the beet sugar industry, which uses fewer resources than sugarcane.

Research presented at the British Cardiovascular Society conference in Manchester showed just one glass of beetroot juice each day could help reduce the harmful inflammation found in people who have coronary heart disease. According to the CDC, heart disease remains the leading cause of death in the U.S. and coronary heart disease is the most common type, killing 360,900 people in 2019. Nearly 20% of deaths from coronary artery disease occur in adults who are younger than 65 years.

The team engaged 114 healthy participants to test the theory that beetroot juice could help reduce inflammation in the endothelium and speed healing. They split the group in two. One group of 78 participants received a typhoid vaccine. This temporarily increased blood vessel inflammation. The researchers triggered a localized inflammatory response on the skin in the last 36 participants. Half of each group drank 140 milliliters (approximately 5 ounces) of beetroot juice each morning that was high in nitrate while the other half drank the same amount of beetroot juice without nitrates.

The researchers tested blood, urine and saliva for biomarkers of nitric oxide and found those who drank the nitrate-rich beetroot juice had higher levels. In the group that received the typhoid vaccine, the researchers noted the endothelium function was restored, which is lost in the inflammatory response. They also found that those with blisters healed more quickly than those who drank beet juice without nitrates.

The Guardian reported: "*The researchers believe the increased levels of nitric oxide helped to speed up how quickly the volunteers were able to recover from inflammation by switching key immune cells from a state that promotes inflammation to a more anti-inflammatory state.*"

Researchers from the Queen Mary University of London led the study. Dr. Asad Shabbir, clinical research fellow at the University, spoke with a reporter from The Guardian about the results: "*Inflammation is vital to protect the body from injury and infection. However, in people with coronary heart disease persistent inflammation can exacerbate the furring of the arteries, making their condition worse and increasing their risk of a heart attack. Our research suggests that a daily glass of beetroot juice could be one way to get inorganic nitrate into our diet to help to interrupt harmful inflammation.*"

Nitric oxide has long been known as a potent vasodilator that promotes healthy blood flow for efficient oxygenation of your tissues and organs. It also helps remove waste products and carbon dioxide. By relaxing and dilating your blood vessels, nitric oxide improves blood flow and lowers blood pressure. In conventional medicine, nitrates are used to treat angina and congestive heart failure. Research shows a daily glass of beetroot juice could lower blood pressure.

In addition to nitrates, 100 g of beets has a mere 43 calories. According to the U.S. Department of Agriculture, other nutrient values found in beets include: Fiber 2.8 grams; Magnesium 23 mg; Folate 109 µg; Vitamin A 33 IU; Calcium 16 mg; Potassium 325 mg, and Choline 6 mg. Beets also contain a phytonutrient called betalains. This compound gives them their reddish-purple color and helps reduce inflammation and fight cell damage in the body. According to a study published in the *Journal of Functional Foods,* the antioxidant capacity of red beetroot is correlated with the betalain content.

Betalains also have anti-inflammatory, anticancer and antihepatitis properties, and have demonstrated the ability to improve cognitive impairment. The phytonutrient has exhibited antimalarial and antimicrobial effects and studies have confirmed the phytonutrient can reduce glycemia without weight loss or liver impairment. The phytonutrient responsible for the beet's color can also add a red tinge to your bowel movements and urine.

Cruciferous vegetables also influence your heart health. These vegetables are widely recognized for their anticancer benefits, such as broccoli, cabbage, cauliflower and Brussel sprouts. A study published in the *Journal of the American Heart Association* examined the effects vegetable intake has on carotid artery measures, which are indicative of arterial health. They found those who consumed the most cruciferous vegetables had healthier carotid arteries than those who consumed the fewest. Narrow hard arteries restrict blood flow and can lead to a heart attack and stroke. The researchers found that on average, those who had at least three servings of cruciferous vegetables each day had thinner (healthier) carotid arterial walls than those who ate two servings or less each day.

The fiber and healthy bacteria found in traditionally fermented and cultured foods can also benefit your heart. Probiotic-rich sauerkraut has been shown to reduce inflammation, promote good health, improve high blood pressure, reduce triglyceride levels and maintain healthy cholesterol levels. Each of these factors benefits your cardiovascular and heart health.

Magnesium is also profoundly important for heart health and many people are deficient. More than 300 enzymes rely on the magnesium for proper function, and it is needed for a host of biochemical processes. The best way to get a healthy amount of magnesium is to ensure you're eating plenty of dark green leafy vegetables. Foods that are highest in magnesium include spinach, Swiss chard, acorn squash, artichokes, kale and green peas.

Reference: *The Guardian*, June 9, 2022. *Vegetable Facts, History of Beetroot. MyFoodData,* April24, 2022. CDC February 7, 2022. *Circulation*,1996; 93. *Cardiology*, 2012; 122. Queen Mary University, April 13, 2016. *Food Data Central, Raw Beets. Journal of Functional Foods*, 2016; 27. *Plants,* 2020; 9(9). *Global News*, February 25, 2014. *Journal of the American Heart Association* April 4, 2018; 7:e008391 Abstract/Results. Harvard Health Publishing, July 12, 2020. BBC Good Food, *Top 5 Benefits of Sauerkraut*. *My Food Data*, April 24, 2022.

Why Go Organic?

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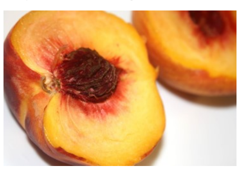
For years, berry and soft fruit samples have been found to contain traces of as many as 17 different pesticides and herbicides. The two most prevalent pesticides were phosmet (found on 10% of samples) and malathion (found on 9%). Phosmet and malathion are organophosphates, a class of pesticides known to have toxic effects on the human nervous system. Prenatal exposure has been linked to delayed brain development, reduced IQ, and attention deficits.

Symptoms of exposure include weakness, headache, diarrhea, nausea and vomiting. Long-term exposure has been linked to neurological effects, such as confusion, disorientation, anxiety, memory loss, depression and personality changes. Malathion was also classified as a probable human carcinogen by the International Agency for Research on Cancer (IARC) in 2015. As reported by the IARC: "*The herbicide glyphosate and the insecticides malathion and diazinon were classified as probably carcinogenic to humans (Group 2A) ... Group 2A means that the agent is probably carcinogenic to humans. This category is used when there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals. Limited evidence means that a positive association has been observed between exposure to the agent and cancer but that other explanations for the observations (called chance, bias, or confounding) could not be ruled out. This category is also used when there is limited evidence of carcinogenicity in humans and strong data on how the agent causes cancer ... For the insecticide malathion, there is limited evidence of carcinogenicity in humans for non-Hodgkin lymphoma and prostate cancer. The evidence in humans is from studies of exposures, mostly agricultural, in the USA, Canada, and Sweden published since 2001. Malathion also caused tumors in rodent studies. Malathion caused DNA and chromosomal damage and also disrupted hormone pathways."*



"...organically grown crops, including grains, have on average higher nutrient contents than those grown conventionally."

Aside from avoiding toxic exposures, another reason to opt for organic whenever possible is that organic produce tends to have higher nutrient content than conventional varieties. One reason for this is because nutrient content is largely dictated by the health of the soils in which it is grown. Synthetic pesticides and herbicides destroy soil microbes and conventional monocultures result in the depletion of soil minerals, while organic foods are typically grown in regenerative agricultural systems that build soil and are replete with micronutrients and healthy microbes.

As a result, organic foods tend to contain more vitamins and minerals than their conventional counterparts. Studies that have documented noticeable differences in the nutritional composition of organic versus conventional produce include a multi-year study by the Organic Center. Reports of their findings were published in 2008 and 2012. As noted in their 2012 report: *"In the Center's 2008 report, New Evidence Confirms the Nutritional Superiority of Plant - Based Organic Foods, we presented research demonstrating that organically grown crops, including grains, have on average higher nutrient contents than those grown conventionally. Many variables influence nutrient content, often making it difficult to determine the impact of farming systems on nutrient levels. Thus there are conflicting results about this issue ... Matched-pair studies are the best way to control for these variables and to isolate their influences on nutrient content. For the 2008 report, The Organic Center developed a rigorous methodology to screen research studies comparing the nutrient content of organic and conventional crops. We identified 191 matched-pair studies that met our criteria designed to limit the influence of extraneous environmental and genetic factors on nutrients. These criteria required studies to use the same plant varieties in the same location during the same year. Out of these matched pairs, 62% of the organic samples, including fruits, vegetables and a few grains, had higher nutrient levels. Conventional systems had higher nutrient levels in 36% of the matched pairs. The average serving of organic plant-based food contained about 25% more of the nutrients encompassed in this study than a comparable-sized serving of the same food produced by conventional farming methods*

Similarly, a 2014 meta-analysis of 343 peer-reviewed publications concluded there are "statistically significant and meaningful differences in composition between organic and non-organic crops/crop-based foods," adding: *"Most importantly, the concentrations of a range of antioxidants such as polyphenolics were found to be substantially higher in organic crops/crop-based foods, with those of phenolic acids, flavanones, stilbenes, flavones, flavonols and anthocyanins being an estimated 19%, 69%, 28%, 26%, 50% and 51% higher, respectively. Many of these compounds have previously been linked to a reduced risk of chronic diseases, including CVD [cardiovascular disease] and neurodegenerative diseases and certain cancers, in dietary intervention and epidemiological studies."*

They also found that organic foods contain significantly lower levels of the toxic metal cadmium, compared to conventional crops, which is another benefit. Other studies showing organic foods have higher nutrient levels than their conventional counterparts include a 2010 study, partially funded by the USDA, which found organic strawberries to be more nutrient-rich than non-organic strawberries, and a behavioral study conducted by the Centers for Disease Control and Prevention, which found children with higher levels of organophosphate pesticides in their systems had a higher risk of attention-deficit hyperactivity disorder (ADHD).

Choose wisely when purchasing your produce, opting for organic as much as possible. Downloading the EWG Dirty Dozen list will help guide you in spending your dollars effectively.

Reference: *Live Naturally*: More Than One-Third of Americans Eat Organic. EWG *2025 Shopper's Guide to Pesticides in Produce*, March 2025. *Global Organics* February 2, 2018. EWG, February 12, 2020. EWG *Dirty Dozen Full List*. Center for Environmental Research and Children's Health, *CHAMACOS Cohort Exposure Studies*. CDC.gov, *Organophosphates*. IARC Monopgraphs, Vol 112, March 20, 2015. The Organic Center, *New Evidence Confirms the Nutritional Superiority of Organic Foods* March, 2008 (Archived). *British Journal of Nutrition* 2014, 112: 794-81. *PLOS One* 5(9): e12345. *Pediatrics*, May 17, 2010.