

Nutritional value of fruits, veggies is dwindling

Chemicals that speed growth may impair ability to absorb soil's nutrients



While we've been dutifully eating our fruits and vegetables all these years, a strange thing has been happening to our produce. It's losing its nutrients. That's right: Today's conventionally grown produce isn't as healthful as it was 30 years ago — and it's only getting worse. The decline in fruits and vegetables was first reported more than 10 years ago by English researcher Anne-Marie Mayer, PhD, who looked at the dwindling mineral concentrations of 20 UK-based crops from the 1930s to the 1980s.

It's happening to crops in the United States, too. In 2004, Donald Davis, PhD, a former researcher with the Biochemical Institute at the University of Texas, Austin, led a team that analyzed 43 fruits and vegetables from 1950 to 1999 and reported reductions in vitamins, minerals, and protein. Using USDA data, he found that broccoli, for example, had 130 mg of calcium in 1950. Today, that number is only 48 mg. What's going on? Davis believes it's due to the farming industry's desire to grow bigger vegetables faster. The very things that speed growth — selective breeding and synthetic fertilizers — decrease produce's ability to synthesize nutrients or absorb them from the soil.

A different story is playing out with organic produce. "By avoiding synthetic fertilizers, organic farmers put more stress on plants, and when plants experience stress, they protect themselves by producing phytochemicals," explains Alyson Mitchell, PhD, a professor of nutrition science at the University of California, Davis. Her 10-year study in the *Journal of Agricultural and Food Chemistry* showed that organic tomatoes can have as much as 30 percent more phytochemicals than conventional ones. But even if organic is not in your budget, you can buck the trend. We polled the experts and found nine simple ways to put the nutrient punch back in your produce.

Sleuth out strong colors "Look for bold or brightly hued produce," says Sherry Tanumihardjo, PhD, an associate professor of nutritional sciences at the University of Wisconsin-Madison. A richly colored skin (think red leaf versus iceberg lettuce) indicates a higher count of healthy phytochemicals. Tanumihardjo recently published a study showing that darker orange carrots contain more beta-carotene.

Pair your produce "When eaten together, some produce contains compounds that can affect how we absorb their nutrients," explains Steve Schwartz, PhD, a professor of food science at Ohio State University. His 2004 study of tomato-based salsa and avocado found this food pairing significantly upped the body's absorption of the tomato's cancer-fighting lycopene.

Buy smaller items Bigger isn't better, so skip the huge tomatoes and giant peppers. "Plants have a finite amount of nutrients they can pass on to their fruit, so if the produce is smaller, then its level of nutrients will be more concentrated," says Davis.

Pay attention to cooking methods Certain vegetables release more nutrients when cooked. Broccoli and carrots, for example, are more nutritious when steamed than when raw or boiled — the gentle heat softens cell walls, making nutrients more accessible. Tomatoes release more lycopene when lightly sauteed or roasted, says Johnny Bowden, PhD, nutritionist and author of *"The Healthiest Meals on Earth."*

Eat within a week "The nutrients in most fruits and vegetables start to diminish as soon as they're picked, so for optimal nutrition, eat all produce within 1 week of buying," says Preston Andrews, PhD, a plant researcher and associate professor of horticulture at Washington State University. "If you can, plan your meals in advance and buy only fresh ingredients you can use that week."