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Moderator: Charlotte Strasser

Is buying “organic” worth the price?

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Questions for discussion”

How much of your shopping basket is “organic?” We are mostly limited by what Public offers....

Do Shell Point food services purchase “organic?” Probably not.... Also it is doubtful that local restaurants can afford the extra cost of organic foods.

At our ages what difference does it make? After all, we were eating for 40 years before anyone thought of “organic.”

Are you willing to shoulder the premium costs to set an example and to preserve “what you have left?”

What does organic mean?

Organic produce, according to the USDA, must be grown without synthetic pesticides, synthetic fertilizers or genetically modified organisms. Organic meat has to come from animals that were raised in a natural setting, didn't receive any antibiotics or hormones, and were fed 100 percent organic feed.

“By this general definition, [organic food] should be friendlier to the planet and pose less harm to human health,” Chensheng Lu, an associate professor of environmental exposure biology at Harvard University.

When it comes to packaged foods, only a label that says “100 percent organic” indicates a product made solely with organic ingredients. “Organic,” on the other hand, means 95 percent of the ingredients are organic, while “made with organic ingredients” is reserved for products with at least 70 percent certified organic ingredients.

A 2012 meta-analysis published in the Annals of Internal Medicine comparing organic and conventional foods, for example, found that exposure to pesticide residue was more than five times higher in conventional produce. A 2014 study found that organic foods had significantly lower levels of toxic metals compared to conventional alternatives, and “substantially higher” levels of antioxidants.

So, what does this mean for human health?

According to the Environmental Working Group, nearly three-quarters of 7,000 produce samples tested by the USDA in 2014 contained pesticide residues. In some cases, these pesticides persisted on fruits and vegetables even when they were washed or peeled. Pesticide exposure has been linked to all kinds of health conditions, from neurodegenerative diseases like Parkinson's to cancer and birth defects.

The jury, however, is still out as to whether or not the pesticides found in conventional foods are present in large enough quantities to actually make a difference to human health.

In the 2012 meta-analysis, conventional fruits and vegetables were found to have far more pesticide residue than organic produce, but the levels were almost always under the maximum amount allowed by the Environmental Protection Agency.

“We’re exposed to a cocktail of chemicals from our food on a daily basis,” said Michael Crupain, the director of Consumer Reports’ Food Safety and Sustainability Center, in an earlier post. “It’s not realistic to expect we wouldn’t have any pesticides in our bodies in this day and age, but that would be the ideal. We just don’t know enough about the health effects.”

The 2012 meta-analysis did not find any significant nutritional differences between conventional and organic foods. A meta-analysis published two years later in the British Journal of Nutrition, however, found that organic produce may have substantially higher concentrations of antioxidants and other potentially beneficial compounds.

A recent study concluded that organic dairy and meat contain about 50 percent more omega-3 fatty acids. “Omega-3s are linked to reductions in cardiovascular disease, improved neurological development and function, and better immune function,” wrote study co-author Chris Seal, a professor of food and human nutrition at the U.K.’s Newcastle University. “But getting enough in our diet is difficult. Our study suggests that switching to organic would go some way towards improving intakes of these important nutrients.”

The Centers for Disease Control notes that “[s]cientists around the world have provided strong evidence that antibiotic use in food-producing animals can have a negative impact on public health“ because the drugs allow antibiotic-resistant bacteria to develop. So choosing organic meat, or meat raised without antibiotics, is better than conventional when it comes to this issue.

Though the health impacts of conventional foods on consumers remain unclear, the detrimental effects of pesticides and other chemicals are more clearly documented in the case of farmworkers. There’s also some evidence that people living in farm communities are at risk for chronic health problems as a result of chemical exposure. Pesticides used in strawberry farms in California, for instance, are associated with an increased cancer risk among children living in those areas, according to the Department of Pesticide Regulation.

Lu said choosing organic can also have positive impacts on the food industry at large. “Promoting organic agriculture will attract a new cohort of farmers who believes in producing healthier and safer foods,” he said. “It’s [also] good for the

economy, by eliminating the corporative monopoly.” According to Food and Water Watch, economic power in the agriculture and food sector is unusually concentrated. The four largest companies, for instance, control 85 percent of soybean processing and 82 percent of the beef packing industry — an oligopolistic situation that’s economically harmful for both farmers and consumers.

“Communities with more medium- and smaller-sized farms have more shared prosperity, including higher incomes, lower unemployment and lower income inequality, than communities with larger farms tied to often-distant agribusinesses,” the nonprofit writes. Many organic farms are small operations, though “big organic” farms do exist as well. If buying from a small farm is important to you, one option is to seek out a local farmers market.

The Price of Buying Organic Food

Just how much more expensive is it to go organic? You can expect to pay 50%-100% more for organic foods. That's because, in general, it is more labor-intensive, and without the help of pesticides, the yield is not always as favorable. To maximize your organic food dollar, the Environmental Working Group, a nonprofit organization based in Washington, D.C., recommends going organic on the "dirty dozen" -- types of produce that are most susceptible to pesticide residue:

- Peaches
- Apples
- Sweet bell peppers
- Celery
- Nectarines
- Strawberries
- Cherries
- Pears
- Grapes (imported)
- Spinach
- Lettuce
- Potatoes

And which organic produce is probably not worth the added expense? The group lists these 12 items as having the least pesticide residues:

- Papayas
- Broccoli

- Cabbage
- Bananas
- Kiwifruit
- Sweet peas (frozen)
- Asparagus
- Mangoes
- Pineapple
- Sweet corn (frozen)
- Avocados
- Onions

Should we be buying organic?

1. If You Buy Organic for Better Nutrition

Researchers found that fruits and vegetables labeled organic were not more nutritious, on average, than conventional produce, and didn't have higher levels of vitamins. There were also no health benefits to organic meats.

We say: Go conventional. Organic junk food is still junk food.

2. If You Buy Organic to Avoid Pesticides

The Stanford researchers did find that 38% of conventional produce tested in the studies contained detectible pesticide residue, compared with just 7% of organic produce. (Organic produce can still be contaminated by nearby conventional fields.) Having said that, *all* the produce tested--organic or not--was under the allowed safety limits for pesticide residue. This is great news if you put your faith in the USDA, who [sets those limits](#). However, if you believe that no pesticides is better than "safe" levels of pesticides, you might not be assuaged. Finally, this study did not include any long-term studies of the effect of pesticides on humans.

We say: Pick and choose your produce carefully. Some produce contains higher levels of pesticide than others, making it more worthwhile to pay for organic. Also, look at where your produce is from. Caroline Smith DeWaal, food safety director at the Center for Science in the Public Interest and advocate for safer food, [says that produce grown in the U.S. and Canada has lower level of pesticides](#) than that from countries like Chile. Finally, make sure to wash your produce thoroughly before eating it.

3. If You Buy Organic Meat to Avoid Food-Borne Illness, Antibiotics and Hormones

The study found that organic meats weren't any less likely to be contaminated by dangerous bacteria like E. Coli. But when it was contaminated, organic meat was less likely to be contaminated by *antibiotic-resistant* bacteria. That means that if you pick up a food-borne illness from handling or ingesting undercooked organic meats and eggs, antibiotics will be more likely to take care of it.

Public health advocates say overuse of antibiotics in farming has contributed to the spread of super-bugs in humans. There have been at least 24 outbreaks of multi-drug resistant germs in food between 2000 and 2010, though the government has just recently begun to curb the use of non-medical antibiotics on farms.

We say: Look for both antibiotic- and hormone-free products. Many producers of conventional meat and milk offer antibiotic- and hormone-free options that cost somewhat less than full-on organic meat and milk. No matter what kind of meat you buy, always cook it thoroughly to kill bacteria and handle it carefully in the kitchen.

4. If You Buy Organic Food to Protect The Environment

Environmental advocates for buying organic point to the millions of tons of chemical fertilizer dumped on fields during the production of conventional foods every year, or the staggering amounts of waste and toxic gases produced by industrial animal farms that [threaten the health of nearby residents](#).

We say: Go local. While not all farms represented at your local farmers' market will be officially certified as organic (going through certification is an onerous and expensive process), everything there is almost guaranteed to be more environmentally friendly than the same foods would be at a supermarket, and you can even ask the farmer directly about his methods. Most farmers' markets have strict standards for what they allow to be sold, including pesticide use, humane treatment of animals and how far away the food was raised. On the other hand, foods trucked into your local grocery store from Mexico or flown in from another continent (for an average of [1,500 miles travelled](#)) have a huge carbon footprint.

5. If You Buy Organic for the Taste

You would have a hard time denying the difference between a juicy, freshly picked berry and a larger strawberry with a flavorless, white core shipped in from Mexico. But all other things being equal, any strawberry is probably better than no strawberry at all.