7 Tips for Cleaning Fruits, Vegetables

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Nearly 48 million people are sickened by contaminated food each year in the United States. Many people don't realize that even produce can sometimes be the culprit in outbreaks of food-borne illness.

The U.S. Food and Drug Administration (FDA) offers the following tips for protecting yourself:

1. Wash your hands for 20 seconds with warm water and soap before and after preparing fresh produce
2. Cut away any damaged or bruised areas
3. Gently rub produce while holding it under plain running water
4. Wash produce before you peel it
5. Use a clean vegetable brush to scrub firm produce
6. Dry produce with a clean cloth or paper towel
7. Throw away the outermost leaves of a head of lettuce or cabbage

Sources:
- FDA May 23, 2011
- Time May 30, 2011

Dr. Mercola’s Comments:

Food-borne illness is often associated with meat products, but some of the biggest contamination outbreaks in recent years have actually been linked to contaminated produce like spinach, romaine lettuce and tomatoes. Also last week there were a number of people...
who were killed in Germany from E. coli infections in raw salad vegetables, like cucumbers and tomatoes. So if you're under the impression that your produce couldn't possibly be "dirty," think again.

Contamination can and does occur at all phases of production, including the growing phase -- if soil, water or workers' hands are contaminated -- after harvest and during preparation and storage.

A report from the University of Florida's Emerging Pathogens Institute even recently found that you're most likely to be sickened by Salmonella when eating poultry, followed by contaminated produce (particularly tomatoes, sprouts and cantaloupe) as a close second. So the risk of your fresh produce being contaminated is a very real one, but the question remains, what can you do about it?

Why Do Vegetables Become Contaminated in the First Place?

The foundational solution to this problem lies in preventing it at the source -- on the farm, during processing and shipping, and so on. There simply shouldn't be E. coli in your lettuce or Salmonella in your tomatoes.

So why is there?

Our "global food system," which encourages farming on a massive scale, poses steep problems for food safety. Not only can one batch of contaminated spinach or peppers easily sicken people across an entire country, but it's very difficult to trace a contaminated food back to its source … and even harder to then pinpoint the source of the contamination.

Public health agencies like the U.S. Food and Drug Administration (FDA) use the term "field-to-fork continuum" to describe the path any given food takes on the way to your plate, and during any of the following steps, contamination is possible:

- Open field production
- Harvesting
- Field packing
- Greenhouse production
- Packinghouse or field packing
- Repacking and other distribution operations
- Fresh-cut/value-added processing
As you can see, the more steps your food goes through before it reaches your plate, the greater your chances of contamination becomes. If you are able to get your food directly from the field or after harvest, such as directly from a farmer or farmer's market, you knock out five potential operations that could expose your food to contamination.

There is, of course, also potential for contamination directly in the farm field.

For instance, the [2006 spinach scare](#) that sickened hundreds across the United States was initially blamed on wild pigs that spread E. coli bacteria by trampling fences around a spinach field in California. But it was also suggested that other sources may have been to blame, specifically contaminated water including runoff, flooding or irrigation water.

Even the FDA notes that the best solution to food-borne illness resulting from fresh produce lies in preventing it at the source:

"Once fresh produce has been contaminated, removing or killing the microbial pathogens while maintaining the fresh attribute of the produce is very difficult. Prevention of microbial contamination at all steps in the field-to-fork continuum is preferable to treatment to eliminate contamination after it has occurred."

The Agency has developed draft guidance intended to reduce the contamination potential for tomatoes, melons and leafy greens, but these suggestions either do not go far enough or are not being followed by food producers, as contamination is still occurring. Further, there are countless other produce items being grown with little regard for food safety, and the risk that a contaminated pepper or tomato could wind up on your dinner plate remains omnipresent.

**Does Washing Your Produce Make it Safe?**

The FDA offered [seven basic tips](#) to help clean your fruits and veggies, and one of them was to wash produce under plain running water.

But is this actually helpful?

Well, washing under running water will certainly do away with grime and visible dirt on the surface, but this isn’t necessarily the source of contamination. Rather, most pathogenic bacteria are going to be invisible, and they can at times exist inside the plant, where no amount of washing can touch them.
Further, microbes on fruits and veggies often form into tightly knit packs called biofilms. Salmonella, E. coli and other types of infectious bacteria live together in biofilms to stay out of harm's way, and once attached they can be difficult to remove, especially on produce with rough surfaces, such as spinach or cantaloupe.

On the other hand, washing your produce will help to remove some pesticides. So if you buy conventionally grown produce, I do recommend you wash it in clean water, not so much to remove bacteria but to help take off some pesticides. (It won't remove them all, but it may help).

The other issue is that most produce is waxed after harvest to withstand the long journey to market and to protect against the many hands that touch it.

Wax seals in pesticide residues and debris, which make them even more difficult to remove with just water. To reach the contaminants buried beneath the surface of your vegetables and fruits, you need a cleanser that also removes the wax, which is what fruit and vegetable washes do.

In some cases, removing the peel may also help to get rid of bacteria, but keep in mind that often the skin is where the majority of the nutrients are so you'll want to eat it for optimal nutrition.

Many may know that I have not been very fond of alkaline water makers in the past. While I am still opposed to some of the large multi-level brands, I have been more carefully evaluating their claims and have actually been very impressed with the ACID water they produce. Most of the units can either create alkaline or acid water. The acid water is not designed for drinking but it is an excellent cleaning and sterilizing agent and may be the ideal way to clean any contaminated vegetables.

These units are typically well over $1,000 though so it would not make sense to purchase one for this purpose but if you have one you certainly could use it for that. If you don't then a high-quality vegetable wash, like the one we carry, would be more cost effective.

**One FDA "Tip" to Ignore: Irradiation**

In 2008 the FDA published a final rule allowing the use of irradiation on fresh iceberg lettuce and spinach. They call this a "safe measure for safer" produce, but dousing your veggies with ionizing radiation, which is what irradiation is, is nothing more than a last-ditch attempt by the FDA to make their supervision and certification of the crumbling food system appear safe.

This way, agribusiness can continue to grow and process spinach and lettuce in the filthiest conditions imaginable, and it will still be perfectly safe for you to eat it, thanks to the varying doses of radiation.
The FDA maintains that irradiated foods are no different from non-irradiated foods (which is not surprising considering they also consider meat from cloned animals the same as non-cloned meat). Clearly, they have done an excellent job of ignoring the alarming data on food irradiation that has spanned over four decades.

Reproductive dysfunction, chromosomal abnormalities, liver damage, and strange gene-damaging chemicals have all been linked to irradiation.

The FDA also notes that "irradiation does not take the place of washing," so what, then, is the point?

Currently, irradiated foods must be labeled with either the statement "treated with radiation" or "treated by irradiation," and the international symbol for irradiation, the radura. That might change in the future, but for now I suggest avoiding all foods that contain these labels, or buying organic, as organic food is not irradiated.

**Is There Any Way to Find "Cleaner" Produce?**

No one wants to worry that their fresh produce is contaminated with disease-causing microbes, and the last thing you want to do is avoid eating health-boosting veggies due to this fear. Instead, the key to making sure that any food you eat is safe is to get it from a high-quality source. I can't stress the importance of this enough.

When you get your produce from small farmers that raise their food in natural settings using clean water, as opposed to massive agribusiness conglomerations that use sewage sludge as fertilizer, there is very little risk in eating these foods raw. The same goes for meat, eggs, and raw dairy products, as well.

Choosing organic produce can also add at least some level of quality, as organic crops cannot be grown with synthetic pesticides or sewage sludge-based fertilizers, nor can they be irradiated.

I suggest finding farmer's markets, family farms and other sources of safe, high-quality food. Not only are these sources likely to grow their crops in more sanitary conditions than a conventional agribusiness farm, but there's a better chance that it will also be locally grown.

The closer you are to the source of your food, the fewer hands it has to pass through and the less time it will sit in storage -- so the better, and likely safer, it will be for you and your family.