STRAWBERRIES TOP DIRTY DOZEN **LIST AGAIN: 12 FOODS YOU NEED TO BUY ORGANIC**

You stare at the organic produce and wonder is it really worth it? Are there foods you really need to buy organic? Nothing is on sale over here and the strawberries aren't as vibrant in color. Should you buy it? Yes! Don't skip the organic section! It's worth it to buy organic because they are healthier for you! If there is one thing we can tell from the Environmental Working Group's recently released 2018 Dirty Dozen list, it is - buy the organic strawberries and other organic produce. Strawberries have topped the EWG's Dirty Dozen List for 3 years in a row. Every year these berries are followed by 11 other foods that were also found to have higher pesticide residues. These are the foods you need to buy organic.

Pesticide use has been linked to reproductive problems, immune issues, cancer, development problems, Parkinson's disease, and endocrine related disorders. (1) Nearly 70% of conventionally grown produce was contaminated with at least one type of pesticide residue. Strawberries were one of the worst offenders with 98% of samples being contaminated with at least one pesticide. 1/3 of strawberries were found with residues from 10 pesticides and even one sample of strawberries was found containing residues from 20 different pesticides. (2) That's a lot of pesticide on a berry!

ARMED WITH INFORMATION

It's worth knowing what the worst of the contaminated are, so you can be sure to avoid them when shopping. You will want to buy organic. It's best for the environment, our bodies and for our future health to go all-organic but be sure to avoid the dirty dozen. Now, don't buy a Twinkie instead because you can't afford organic. That's just silly- but tempting we know. Everyone knows that a Twinkie is way more damaging than a non-organic strawberry. You are here because you care about health- so let's look at what nonorganic produce to buy to be even healthier. Or to confirm you are making great health choices!

If you can only go organic for 12 produce items- start with these. Then we can talk about the others.

EWG'S DIRTY DOZEN LIST - FOODS YOU NEED TO BUY ORGANIC (2)

- Strawberries
- Spinach
- **Nectarines**
- **Apples**
- Grapes
- **Peaches**
- Cherries
- **Pears**
- **Tomatoes**
- Celery
- **Potatoes**
- Sweet bell peppers



THE DANGERS OF THE DIRTY DOZEN AND **PESTICIDES**

If you want to lower your exposure to pesticides, prioritize the dirty dozen as items you purchase from the organic aisle. Why? There is a lot of evidence to the dangers of pesticides.

There has been growing evidence that link specific illnesses and deformities in humans and animals to endocrine disrupting pesticides. (3) Exposure to these chemicals has been linked to lower IQ's in children of exposed mothers, linked to higher rates of prostate cancer in farm workers, and higher

rates of ADHD. (4) Because the effects of these endocrine disrupting pesticides can be delayed and not always connected to the pesticides, we are just beginning to learn more of the potential impacts.

Non-organic fruits and vegetables are grown with synthetic pesticides and fertilizers. That means the potential for ingesting 1, or a combination of many, of the 230 different pesticides and pesticide breakdown products is strong. All of the foods on the dirty dozen list tested higher for pesticide residues than other conventionally grown fruits and veggies. On average, spinach was found to have 1.8 times more pesticide residue than other produce.

One study looked at organophosphorus pesticide exposure in preschool children and found children who ate conventional diets had 6 times higher of one pesticide metabolite compared to children whose diet was primarily organic. (5) That means eating conventional veggies means higher pesticides your body has.

Don't worry though- changing your diet can have immediate and dramatic "protective effect." The outlook is good according to one study that monitored the urine of school children who were on conventional diets than were switched to organic diets for 5 days. The levels of pesticide metabolites went to non-detectable levels immediately after the organic diet was introduced and remained that

way until children went back to a conventional diet. (6)

ORGANIC HEALTH BENEFITS

Along with the evidence of pesticide danger growing, the evidence that organic fruits and vegetables are higher in antioxidants continues to grow. One study considered 343 peer reviewed publications to find there was significant



differences between organic and nonorganic produce. They found substantially higher concentrations of antioxidants, like polyphenolics. (7)

Antioxidants fight free radicals in our bodies and protect us from a wide range of illnesses including neurodegenerative diseases and cancers. One study comparing organic and conventional growing practices found higher phenolic content in the organic tomatoes, and it also found it probable that

the organic growing methods, that did not use artificial nutrients, could activate the natural defense mechanisms of the organic tomato plants. (8)

Remember that strawberry that was a little less than vibrant. That's the strawberry that you want! A study looked at strawberries grown in the same geographical area comparing organic and conventional growing techniques. Organic strawberries were darker, less vivid and had higher nutritional antioxidants! (9)

LESS METALS?

The review of 343 studies also showed that the synthetic pesticides and fertilizers can also mean significantly higher concentrations of toxic metals, like cadmium. (6) This nonessential metal is highly toxic and can be absorbed by the body to be stored for a lifetime. (10) Heavy metal toxicity can lead to a variety of symptoms and illnesses. To learn more, check out our article on metals.

(https://www.thewellnessway.com/are-you-a-metal-head/)

SKIP THE DIRTY DOZEN AND GO ORGANIC

When you look at the mounting evidence of the dangers of pesticides, it just doesn't seem worth the risk, does it? Especially, when you look at the benefits of such an easy swap of going organic. It's worth the investment! We definitely recommend always choosing organic. If it is too cost prohibitive start by choosing organic swaps for the Dirty Dozen. You just might find that when you are in the organic aisle, some organic options are as low-cost as the conventional especially if they are in season. To get you started here are a few tips.

TIPS FOR SHOPPING ORGANIC

- Shop the farmer's market for local, organic foods
- Join a co-op. You will get the best of in season fruits and veggies.
- Buy frozen fruits and veggies. It can be hard to get organic fruits and veggies year-round but frozen is a great way to get those antioxidants and nutrients.
- Check out the bulk deals at the wholesale club (https://www.thewellnessway.com/warehouseclubs-23-favorite-finds/). Amazing deals and the bulk sizes will make sure you have plenty to last

your fruit and veggie cravings.

• Check out the clean 15. If you don't want to go all organic these have the least pesticide residue. Just be sure to choose NON-GMO products. Watch out especially when shopping for corn papayas, yellow squash and zucchini.

EWG'S CLEAN FIFTEEN LIST (2) - AVOID GMO!

- Avocados
- sweet corn
- pineapples
- cabbages
- onions
- frozen sweet peas
- papayas
- asparagus
- mangoes
- eggplants
- honeydews
- kiwis
- cantaloupes
- cauliflower
- broccoli

Next time you are at the grocery store be sure to admire that dark red strawberry because even though it is less vivid, it's higher in nutrition and has no synthetic pesticides.

Dr. Patrick Flynn discusses strawberries in this video.

RESOURCES:

- https://www.mdpi.com/1660-4601/11/4/3870/htm#B101-ijerph-11-03870 (https://www.mdpi.com/1660-4601/11/4/3870/htm#B101-ijerph-11-03870)
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