**By Dr. Alyssa Musgrove**

Last week, the Environmental Working Group (EWG), a non-profit, non-partisan organization dedicated to protecting human health and the environment, released its annual report, “A Shopper’s Guide to Pesticides in Produce.” The report lists the Dirty Dozen, fruits and vegetables with the most pesticide residue, and the Clean Fifteen, for which few, if any, residues were detected.

Drawing from tests conducted by the U.S. Department of Agriculture, the 2018 report found nearly 70 percent of produce tested had pesticide residue. According to the EWG's research, strawberries, spinach, and nectarines were the worst offenders for the second year in a row. Specifically, the report noted:

* One third of all conventional strawberry samples contained 10 or more pesticides, with one sample containing 22 different pesticide residues
* Spinach had 1.8 times more pesticide residue by weight than any other crop
* Conventional spinach had relatively high concentrations of permethrin, a neurotoxic insecticide
* 80 percent of apples tested contained diphenylamine, a pesticide banned in Europe
* An average of five pesticides were detected on conventional cherries, with 30 percent of samples containing iprodione, a pesticide not allowed in Europe and linked to cancer

Why should you be concerned about pesticide residue? Pesticides are designed to kill living organisms, such as insects, invasive plants and fungi. Given their designed purpose, it should come as no surprise that pesticides could have a negative effect on human health, as well. While the health effects of pesticide residues are still being debated, there have been many health risks linked directly to pesticides – including infertility, brain and nervous system issues, cancer and hormone disruption – so it makes sense to keep your exposure as low as possible.

In a perfect world, we would all buy and eat 100% organic. However, organic options aren’t always available, and they often come with a heftier price tag. If fully organic isn’t in your budget, you can eliminate many of the pesticides from your food by prioritizing certain organic foods. The EWG’s annual lists provide a great place to start. As the group points out, “Buying organic versions of the dirty dozen helps you to skip toxic chemicals. Buying conventional versions of the clean 15 helps your wallet.”

In general, produce with a thick outer skin that you peel will be lower in residue than leafy greens or those with a soft, edible skin.

EWG’s 2018 Dirty Baker’s Dozen

(This year the EWG added a 13th vegetable to the list)

1. Strawberries
2. Spinach
3. Nectarines
4. Apples
5. Grapes
6. Peaches
7. Cherries
8. Pears
9. Tomatoes
10. Celery
11. Potatoes
12. Sweet Bell Peppers
13. Hot peppers

EWG’s 2018 Clean 15

1. Avocados
2. Sweet corn\*
3. Pineapples
4. Cabbages
5. Onions
6. Sweet peas
7. Papayas\*
8. Asparagus
9. Mangoes
10. Eggplants
11. Honeydews
12. Kiwis
13. Cantaloupes
14. Cauliflower
15. Broccoli

*\*Although shown to have the among the lowest amounts of pesticide residue, sweet corn and papayas sold in the United States are genetically-modified crops (GMOs). You should still choose organic versions of these crops in order to avoid the GMO varieties.*

There are a couple important things to keep in mind when using these lists:

1. Fruits and veggies are the foundation to a healthy diet. If you can’t buy organic, you are still better off eating conventionally-grown fruits and vegetables rather than not eating them at all. Always eat lots of vegetables, but choose organic when possible, especially when it comes to The Dirty Dozen.

1. If you are unable to purchase organic, consider peeling your produce. For example, remove and discard the outermost leaves of lettuce and cabbage. Peel your potatoes and apples.
2. For produce that you cannot peel, wash thoroughly – organic or not. To clean your vegetables at home, mix one tablespoon of apple cider vinegar to one cup of water and soak your desired fruit or vegetable. Stir periodically for five minutes before draining, rinsing and using. Alternately, you can make a solution of one part vinegar and three parts water and keep in a spray bottle near the sink. Simply spray your produce, then rinse under cold water.

*Pathways to Healing specializes in holistic chiropractic care. Dr. Alyssa Musgrove draws on a variety of techniques, including chiropractic, kinesiology, nutrition, food allergy testing and lifestyle counseling to assist clients in achieving optimal health and wellness in one setting. In addition, the practice is committed to being a valuable source of information so that people can learn how to live a healthy lifestyle and prevent future illness. Pathways to Healing is located at 1022 Founders Row, Lake Oconee Village, Greensboro. The office can be reached at 706-454-2040.*