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Eating Clean: Tips for avoiding chemicals in your food

According to the Environmental Working Group (EWG), many scientists and public health advocates believe that a number of increasingly common problems that afflict children, including autism, ADHD, low birth weight, early delivery, asthma, infertility, diabetes and cancer, are linked to exposure to toxic chemicals and pesticides (Vogt et al., 2012). Not to mention the endless list of chronic health conditions including multiple chemical sensitivity (MCS).

Based on self-reported dietary data, the greatest exposure to pesticides from foods in an American study from 2011 were tomatoes, peaches, apples, peppers, grapes, lettuce, broccoli, strawberries, spinach, pears, green beans, celery and dairy (Vogt et al., 2012). What's more, the study showed that pre-school age children had significantly higher estimated intakes of 6 of 11 compounds compared to school-age children.

So, what does this all mean? We are taught that vegetables and fruits are the best thing for us and that fact remains the same but how we go about shopping and eating them does need a little tweaking. So, I have put together three tips that greatly reduce your chances of chemical exposure from your food:

1. Organic! Organic! Organic!

It's an easy rule of thumb: if you're eating the skin or peel of it, buy it organic. It's that simple. This advice applies to many of the foods on the "Dirty Dozen: Foods You Should Always Buy Organic List," including: apples, berries, peaches, tomatoes, grapes, squash, cucumbers, green beans, spinach and lettuce (Group, n.d.). Since the nutrient density of these foods is so high, why taint the health benefits by choosing one's sprayed with chemicals? Also, when it comes to dairy, what goes into the cow shows up in the milk. So,









choosing organic, you can rest assured that "organic cows" used for milking were fed a diet of grains and grasses that were grown without the use of synthetic fertilisers, herbicides or pesticides.

2. Consume less meat, dairy and fish.

The most Persistent Organic Pollutants (POPs) are found in meat, dairy and fish. POPs are organic (carbon-based) chemicals — products and by-products of human industrial processes — that do not break down, either chemically or biologically, in the environment (Guo et al., 2019). They are persistent, meaning that they can be found in the environment for decades and even centuries.

Not only do POPs remain in the environment, they also have a tendency to accumulate in the fatty tissue of animals and humans and have been found in human breast tissue, fish, meat, and dairy products worldwide.

If you don't want to eliminate these foods altogether, then remove the fat and skin as much as possible when you eat meat and fish since this is where the POPs concentrate.

3. Avoid processed foods.

Put away the potato chips. Throw out the cookies. You've heard it before: avoid high-carbohydrate, highly processed foods. That is because those foods have a higher probability of containing "acrylamide" (Canada, 2002). According to the World Health Organization, "acrylamide is a chemical that is used to make polyacrylamide materials, as well as glues, paper and cosmetics. Acrylamide is also used in the construction of dam foundations and tunnels, and appears to be produced in some foods prepared at high temperatures. Acrylamide is known to cause cancer in animals. Also, certain doses of acrylamide are toxic to the nervous system of both animals and humans" (Additional Research on Acrylamide in Food Essential, Scientists Declare, n.d.).

So, that begs the question: why is a chemical that is used in the construction of dam foundations and tunnels, found in our food? The answer is that it appears to be produced naturally in some foods that have been cooked or processed at high temperature and the levels appear to increase with the duration of heating. The highest levels found so far were in starchy foods (potato and cereal products).



Bibliography

- Additional Research on Acrylamide in Food essential, Scientists declare. (n.d.). Retrieved

 March 16, 2022, from https://www.who.int/news/item/27-06-2002-additional-research-on-acrylamide-in-food-essential-scientists-declare
- Canada, H. (2002, September 11). *Acrylamide and Food* [Backgrounders;notices].

 https://www.canada.ca/en/health-canada/services/food-nutrition/food-safety/chemical-contaminants/food-processing-induced-chemicals/acrylamide/acrylamide-food-safety.html
- Group, E. W. (n.d.). *Dirty Dozen™ Fruits and Vegetables with the Most Pesticides*. Retrieved March 16, 2022, from https://www.ewg.org/foodnews/dirty-dozen.php
- Guo, W., Pan, B., Sakkiah, S., Yavas, G., Ge, W., Zou, W., Tong, W., & Hong, H. (2019).
 Persistent Organic Pollutants in Food: Contamination Sources, Health Effects and
 Detection Methods. *International Journal of Environmental Research and Public Health*,
 16(22), 4361. https://doi.org/10.3390/ijerph16224361
- Vogt, R., Bennett, D., Cassady, D., Frost, J., Ritz, B., & Hertz-Picciotto, I. (2012). Cancer and non-cancer health effects from food contaminant exposures for children and adults in California: A risk assessment. *Environmental Health*, 11(1), 83. https://doi.org/10.1186/1476-069X-11-83