

## Regulate all chemicals in food? Two experts say that's an 'absurd (and impossible) exercise'

A recent [CNN article](#) about the FDA oversight of chemicals in foods is puzzling. Author Sandee LaMotte regurgitates a ludicrous demand by the anti-chemical group Environmental Defense Fund – that the estimated 10,000 chemicals found in food be tested and regulated. We believe this is absurd (and impossible) exercise.

People are exposed to tens of thousands of chemicals every day. All [of them are toxic at some dose](#) and all of them are also safe at some lower dose. And this doesn't just apply to "synthetic chemical additives," which EDF paints as toxic villains. In fact, if every one of the 10,000 chemicals were magically removed from food it would make little difference in the total burden of chemicals to which we are exposed. Our foods contain far more than 10,000 chemicals.

Coffee itself contains over 1000 natural chemicals, caffeine being the best known. This does not mean it is completely safe. [Only six cups of coffee contain enough caffeine](#) to nearly reach a toxic level. As is the case with caffeine and all other chemicals, the dose makes the poison – the founding principle of toxicology – is misconstrued or ignored by those who are scientifically ignorant or have an anti-chemical agenda. So, in the absence of any discussion of "how much" of these chemicals we are exposed to the EDF claim becomes irrelevant.

Moreover, the article makes it seem like the US FDA is asleep at the nations' "wheel" when it comes to food safety. Au contraire. The FDA employs scores of board-certified toxicologists, unlike the EDF, and has other scientists intimately familiar with food safety. A balanced article would have included their voices, or at least voices from a variety of organizations with specialized knowledge of food safety. But EDF is as balanced as an elephant and fruit fly on a see-saw and, not surprisingly, CNN did not seek another opinion.

Here is one (of many) examples of a misstatement in the article, "The FDA never considers the overall effect of these 10,000 chemicals on people..." Wrong, the FDA considers this quite often. It has also developed a concept, referred to as the [threshold of toxicological concern](#) (TTC) back in the last century to grapple with this issue. This concept was developed because the FDA realized back then that each individual type of food was itself a complex mixture of hundreds, if not thousands, of chemicals.

Potatoes, for example, have hundreds of chemicals, one of which, [solanine](#), is a natural, toxic pesticide made by the potato plant. This is why eating green potatoes or potato leaves is not recommended—the level of solanine in this part of the plant is much higher than in the actual potato. However, the level of solanine in the actual potato is below the safe dose of solanine, which is why eating potatoes is not harmful. This TTC concept developed by FDA is being routinely applied by other health organizations for chemicals in air, water and cosmetics.

Can FDA improve its efforts on maintaining the already-safest food on planet Earth? Probably, and the article points to some areas that need further study such as the PFAS family of chemicals. But alarmist

articles such as this are not based on good science, nor an accurate portrayal of the good work of the FDA.

Our food is already safe. The enormous effort required to examine minute levels of thousands of common chemicals won't make it any safer. It's just a waste of time and money.

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