An All-Natural Chemical Feast

By ACSH Staff — November 23, 2006

This article appeared in [1] the New York Post [2].

It's time to start the preparation for your multicourse serving of Thanksgiving chemicals.

These days, people think the word "chemical" means "bad" -- and supermarkets are filled with foods that claim to be "chemical-free," "all-natural," and "purely organic." Almost daily, media stories tell us, for example, how a "carcinogen" known as acrylamide is showing up in French fries and other cooked high-starch foods.

We're told that nitrite in bacon, saccharin in Sweet'N Low and PCB traces in farmed salmon are "carcinogens." The basis? They cause cancer in lab rats that have been fed enormous doses.

So it may be a suprise to learn that even 100 percent natural foods -- including the holiday feast that will be coming your way shortly -- come replete with chemicals, including toxins (poisons) and carcinogens (cancer-causing chemicals), which average consumers would reject simply because they can't pronounce the names.

Assume you start with a soup course, then munch down some crispy, natural vegetables, move on to a traditional stuffed bird with all the trimmings (washing it down with a few glasses of wine) and then top it all off with dessert and coffee. You will thus have consumed holiday helpings of various "carcinogens" (again, in lab animals fed high doses). Yes, Mother Nature makes "carcinogens," too:

* hydrazines (mushroom soup)

* aniline, caffeic acid, benzaldehyde, hydrogen peroxide, quercetin glycosides, and psoralens (your fresh vegetable salad)

* heterocyclic amines, acrylamide, benzo(a)pyrene, ethyl carbamate, dihydrazines, d-limonene, safrole, and quercetin glycosides (roast turkey with stuffing)

* benzene and heterocyclic amines (prime rib of beef with parsley sauce)

* furfural, ethyl alcohol, allyl isothiocyanate (broccoli, potatoes, sweet potatoes)

* coumarin, methyl eugenol, acetaldehyde, estragole and safrole (apple and pumpkin pies)

* ethyl alcohol with ethyl carbamate (red and white wines)

Then sit back and relax with some benzoquinone, caffeic acid, catechol, 1,2,5,6-dibenz(a)anthracene with 4-methylcatechol (coffee).

These carcinogens in your 100 percent natural holiday meal are accompanied by toxins --
popularly known as "poisons," also from Mother Nature. These include the solanine, arsenic and chaconine in potatoes; the hydrogen cyanide in lima beans; and the hallucinogenic compound myristicin found in nutmeg, black pepper and carrots.

Now the good news: These foods are safe.

Four observations are relevant here:

1) When it comes to toxins, only the dose makes the poison. Substances -- like salt -- are potentially hazardous at high doses but perfectly safe when consumed at low doses like the trace amounts found in our foods.

2) While you probably associate the word "carcinogen" with nasty-sounding synthetic chemicals like PCBs and dioxin, the fact is that the more we test naturally occurring chemicals, the more we find that they, too, cause cancer in lab animals.

3) The increasing body of evidence documenting the carcinogenicity (in the lab) of common substances found in nature highlights the contradiction we Americans have created up to now in our regulatory approach to carcinogens: trying to purge our nation of synthetic carcinogens while turning a blind eye to the omnipresence of natural "carcinogens."

4) While animal testing is an essential part of biomedical research, so is common sense. A rodent is not a little man. There is no scientific foundation to the assumption that if high-dose exposure to a chemical causes cancer in a rat or mouse, then a trace level of it must pose a human cancer risk.

If we took a precautionary approach with all chemicals and assumed that a rodent carcinogen might pose a human cancer risk "so let's ban it just in case"), we'd have very little left to eat. (A radical solution to our nation's obesity problem!)

The reality is that these trace levels of natural or synthetic chemicals in food or the environment pose no known human health hazard at all -- let alone a risk of cancer.

So the next time you hear a self-appointed consumer advocate fret about the manmade "carcinogen du jour" and demand the government step in and "protect" us, remember, you just ingested a meal full of natural carcinogens without a care in the world and with no risk to your health.

Pass the methyl eugenol! Bon Appetit!

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