

Holiday Repast Contains Many Chemicals: Natural Ones

By ACSH Staff — November 17, 2000

For the past few decades, Americans have been manifesting a chronic condition best described as "chemicalphobia."

All around us, ads brag that products are "100% natural" or "organic" or chemical free." Many consumers think that "chemical" is the opposite of "natural" and the opposite of "good." Viewed in this context, the 100-percent natural Holiday Dinner Menu that the American Council on Science and Health publishes each year comes as quite an eye-opener.

Here is a typical American holiday feast literally everything from soup to nuts and it's not only 100-percent natural, but 100-percent chemical, too. And all the chemicals come with the compliments of Mother Nature.

But don't panic: These natural chemicals as well as their synthetic counterparts are safe in the amounts that are found in our foods. According to some self-styled consumer advocates, the only way to be sure your holiday dinner is safe is to serve certified organic, pesticide-free everything. Otherwise, the doomsayers claim, you're not only stuffing yourself with more calories than you'd normally eat in three days, you're also packing in untold amounts and varieties of pesticides, herbicides, and other nasty, cancer-causing products of technology run amok. And, warn the pantry police, any or all of these unnatural and unwelcome substances will at some point cause dire health problems for you and your loved ones.

There are at least two problems with this scenario: First, it ignores the fact that for years the federal Food and Drug Administration (FDA) has been telling us that the foremost risk to food safety in this country comes not from man-made pesticide residues but from microorganisms - "100% natural" bacteria and viruses and the like. Second, this dire picture of a Frankensteinian feast neglects the simple truth that all foodstuffs, whether organic or not, whether processed or not likely contain substances that we know can cause cancer when tested in laboratory animals (usually rodents).

Your all-natural, organic goodies are full of stuff that's just as "bad" as those awful, unnatural "chemicals" that the food police like to harangue you about.

What Mother Nature has provided for us in the way of carcinogens

That fresh **relish tray** with its carrots, cherry tomatoes, and celery contains such proven rodent carcinogens as caffeic acid, benzaldehyde, and quercetin glycosides.

And that **green salad** drizzled with a piquant basil-mustard vinaigrette features estragole and allyl isothiocyanate two more rodent carcinogens.

What about **the entrees**? We've got both roast beef and roast turkey on our menu this year. And both will provide us with heterocyclic amines products of the roasting process. As an added treat, the **bread stuffing**, a moist and fragrant blend of bread, onions, celery, black pepper, and **mushrooms** will give us such rodent carcinogens as benzo(a)pyrene, ethyl carbamate, furfural, and safrole.

The other vegetables on the holiday table, essential as they are for good health, also provide us with some rather interesting "natural additives." Those steamed **broccoli spears** contain allyl isothiocyanate; that crispy baked potato is laced with ethyl alcohol and caffeic acid; those festive **sweet potatoes** offer more furfural. On to dessert. Ah, yes. Not only is the traditional holiday dessert course famously laden with calories it also has its share of chemicals. That **pumpkin pie** (made from scratch, of course) offers benzo(a)pyrene. The **apple pie** (also from scratch, and made from local apples) contributes its share of caffeic acid. And both pies contain safrole.

Restricting your dessert choice to **fresh fruits** won't help. Those fresh apples, pears, grapes, and mangos all contain one or more of the following: acetaldehyde, caffeic acid, and quercetin glycosides. And what about that tempting tray of **mixed nuts**? Step right up for aflatoxins and furfural! Even the beverages that accompany your holiday feast hold a few surprises. The **red wine** (a fine California Pinot Noir) of course contains ethyl alcohol; it also offers ethyl carbamate and methylglyoxal. And the **coffee**! That complex and fragrant brew serves up benzo(a)pyrene, benzene, benzofuran, caffeic acid, catechol, and the truly eye-opening 1,2,5,6-dibenz(a)anthracene and that's just for starters!

If, hoping to avoid such compounds, you decide to skip the coffee and opt instead for a more "natural" **herbal tea**, think again. Comfrey tea contains the rodent carcinogen symphytine, and jasmine tea offers a hint of benzyl acetate. It's enough to give a worrywart a good case of indigestion. But remember: Not only are such natural rodent carcinogens widely prevalent in human diets, our intake of these substances is at least ten thousand times higher than our intake of the synthetic pesticides or additives that have been designated rodent carcinogens.

So should we avoid the holiday feast?

Not at all. It's important that we maintain a realistic perspective about all of these rodent carcinogens both the ones that Mother Nature adds and the ones that we might add ourselves. When potentially carcinogenic compounds are tested in laboratory rodents, they are given to the animals in very high doses every day for at least two years. Even if all these compounds were found to be carcinogenic in humans, the doses it would take to bring on cancer would often be astronomical and would be impossible to consume. For example, white bread the everyday sort you might use to make the stuffing for your holiday turkey contains the rodent carcinogen furfural. But for you to consume an amount of furfural equivalent to the amount given to rodents in laboratory tests, you would have to eat 82,600 slices of bread every day an obviously impossible task.

Furthermore, scientific studies have clearly demonstrated that the healthiest diets for humans are

those that contain ample quantities of fruits and vegetables along with their component rodent carcinogens. (And please note: These studies were not restricted to people eating organically grown, pesticide-free produce!)

To keep your holiday meal truly safe, pay heed to the important food safety issues: Follow reasonable food-handling procedures such as cooking meats thoroughly, washing fresh produce carefully, and avoiding cross-contamination. That way, you can ensure that your holiday meal is as safe as it is festive, flavorful, and filling. There's no need to fear that traces of rodent carcinogens natural or synthetic in your feast will damage your health.

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