



Chemical Paranoia

On March 5, 2009, the front page of the *Globe and Mail* screamed the scary headline: “Tests find Bisphenol A in majority of soft drinks.” The story began in loaded and unqualified language: “The estrogen-mimicking chemical BPA, already banished from baby bottles and frowned upon in water jugs, has now shown up in significant levels in soft drinks.” Well down in the body of the article, the reporter smirked dismissively that “both Health Canada and the soft drink industry played down the findings,” and then quoted Health Canada’s Dr. Samuel Godefroy that the levels are “extremely low.”

The following day, but buried at page 10, the same reporter quotes Godefroy as explaining that the results are “not conducive to any human health concern” and “extremely reassuring.” The paper also ran a “correction” admitting that with these “significant” levels it would take 8,000 cans of soft drinks a day for life to exceed Health Canada’s exposure limit of BPA at the average level of the compound being found in beverages. The paper also carried a letter to the editor that pointed out that the migration of BPA from can coatings is negligible – the BPA levels were 130,000 times lower than the tolerable daily intake set by Health Canada. But by this time the damage was done.

Unfortunately, this kind of scare-mongering reporting is all too common. This was the same paper that caused great alarm and economic harm a few years ago with the front-page headline: “Farmed salmon are laced with toxins, study finds.” The story went on to say that, “salmon

from Toronto supermarkets were so contaminated that they shouldn’t be eaten more than once every two months because they pose an increased risk of cancer.” However, the same paper, the next month, under the headline “Bad Fish Rap” warned: “Canadians have become so anxious about lurking health threats that they are actually helping to harm themselves.” Now admitting that “the levels were vanishingly small and well within safe standards,” the paper seemed surprised that “despite all that, a health panic followed.” After describing the nutritional value of salmon, the paper concluded that, “we should be eating more fish, not less.” Seemingly oblivious to its central role in creating the panic in the first place, the paper sanctimoniously concluded that “the salmon scare is only one example of how our modern phobias are harming our health...It’s a complicated world but we all have to be better at weighing risk against benefit.”

Sensationalist journalism contributes to these phobias, but the problem is deeper than that. For one thing, to be fair, the science itself is often unclear and far more uncertain than scientists want to admit. Name any food safety/nutrition controversy and I can easily provide lots of “objective” scientists on both sides of the issue. Moreover, there is so much misinformation in the popular press that the more you read, the less you are likely to know. Because of this, most consumers now equate “chemicals” with man-made synthetic chemicals, oblivious to the fact that the number of naturally occurring chemicals present in our food supply probably exceeds a million, vastly

outnumbering the miniscule few that are man-made. The majority of these natural chemicals (perfectly acceptable in organic food) have never been subjected to any testing and are positively riddled with natural carcinogens. All of the hundreds of chemicals in a single cup of coffee are natural, and scientists estimate that 70 per cent of these will probably cause cancer in high doses in lab animal experiments. As cancer specialist Bruce Ames has said: “of all the dietary pesticides people eat, 99.99 per cent are ‘natural.’” Reading the popular press, most consumers could hardly know that all major health organizations agree that traces of synthetic chemicals in our diet do not pose a significant health risk.

Basic scientific illiteracy is further compounded by our collective problem with innumeracy. Analytical chemistry has advanced to the point that we can detect parts per trillion but cannot say that these levels are a health risk. And regulators continue to carry out huge recalls for trace amounts of contamination because the standard is zero, while reassuring the public that the food is perfectly safe (remember, one part per trillion is one second in 31,000 years). Most consumers cannot comprehend these tiny amounts so they continue to demand zero risk, even as zero keeps getting smaller. Is it any wonder the poor consumer is confused and suffering from acute chemical paranoia? ■

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