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How Much Lead is in Your Chocolate?

Lenny Bernstein | Feb. 11, 2015

(Bill O' Leary/The Washington Post)

If you (like me) have been happily snarfing down chocolate in recent years, secure in the knowledge that those flavonols were at least doing good things for your heart, today is not your day.

Just in time for Valentine's Day, a California consumer health watchdog group filed legal notices Wednesday demanding that many of the big chocolate companies post warnings on their packages that show their products contain high levels of lead and cadmium.

As You Sow, an Oakland nonprofit, says single servings of 26 products it tested (three times) contain more of the two harmful heavy metals than allowed under the Golden State's Proposition 65 toxic chemical warning law. Here is the list, which includes many of the big name producers of my favorite food. Try not to weep openly at work.

"We are getting [lead and cadmium] from multiple sources," Eleanne Van Vliet, director of toxic chemicals research for As You Sow, said in an interview. "The problem with those toxic heavy metals is they accumulate in the body. It's terrible for adults, but especially for children."

Overexposure to lead, of course, can cause all kinds of health problems, including lowering children's IQ. Cadmium is a carcinogen and can cause kidney and bone damage.

Now before you ask the boss to remove all the vending machines, let's be clear that the chocolate companies, and the association that represents them, are having none of this. They say there are, at worst, trace amounts of lead and cadmium in chocolate from natural sources and that regulators have rejected this argument before.

"The [Food and Drug Association] and many states monitor the amount of cadmium and lead in food. All Hershey products meet all FDA and state standards, and our cocoa powder and chocolate are safe to eat. This includes the very strict Proposition 65 standards for lead and cadmium in candy and other products," Jeff Beckman, director of corporate communications for Hershey, told me in an e-mail. (Hershey had three possible offenders on As You Sow's list). "People have been eating cocoa and chocolate for centuries with no evidence of a single incident of concern regarding these naturally occurring minerals," Beckman added.

Susan Smith, senior vice president of communications and outreach at the National Confectioners Association, also wrote back, adding: "Heavy metals such as lead and cadmium are naturally-occurring elements found in the Earth's crust. Since these elements are present naturally in the soil and water where plants are grown, there are unavoidable traces occurring in virtually all foods, including fish, meats, grains, fruits and vegetables. Like these other foods, cocoa beans, one of the main ingredients in chocolate, may also contain small amounts of heavy metals depending on the natural conditions in which it is grown."

Van Vliet insists that As You Sow is not talking about tiny amounts; rather, she says, if you think about the amount of chocolate the average person consumes each year, these concentrations are worrisome.

(Bigstock)

If we could get them all in a room, both sides would probably agree on one thing: We do eat a lot of chocolate. According to one trade magazine, Americans consume 4.3 kilograms of chocolate (about 9.5 pounds) every year. (That's less than half the amount in world leader Switzerland, where the average person eats 19.8 pounds annually.) The confectioners association's data shows that the average American eats chocolate twice a week, with 89 percent of women and 85 percent of men saying they indulge at some point.

It's true that this is not a new debate. As You Sow filed a similar notice against many of the same companies last July (here's its legal filing), but it seems to have attracted little attention, perhaps because chocolate doesn't exactly go together with Independence Day the way it does with Valentine's Day. Van Vliet said her organization is still in discussions with those producers over that notice.

Another group tried the same strategy in 2002 but ultimately dropped its effort. However, that prompted researchers at the University of California Santa Cruz to look into the amount of lead (but not cadmium) in chocolate, and the results were somewhat sobering. Their study, published in 2005 in the journal Environmental Health Perspectives, concluded that the lead in chocolate was not from naturally occurring sources, a stance that one of the researchers, Russ Flegal, reiterated when I called him.

At the time, Flegal, a professor of environmental toxicology, and his colleagues theorized that the husks of cocoa beans are terrific absorbers of environmental lead. They believed that the beans might be collecting lead pumped into the atmosphere by the use of leaded gasoline in Nigeria, whose beans they tested.

"The average lead concentration of cocoa beans was ≤ 0.5 ng/g, which is one of the lowest reported values for a natural food," they wrote. "In contrast, lead concentrations of manufactured cocoa and chocolate products were as high as 230 and 70 ng/g, respectively, which are consistent with market-basket surveys that have repeatedly listed lead concentrations in chocolate products among the highest reported for all foods. One source of contamination of the finished products is tentatively attributed to atmospheric emissions of leaded gasoline, which is still being used in Nigeria."

Van Vliet says she doesn't know where the metals come from, only that they may enter the chocolate somewhere in the manufacturing process -- which Flegal said is also possible -- and are at unsafe levels in the chocolate we eat.

I asked her how she felt about ruining Valentine's Day for everyone (like me) looking for an excuse (as if I needed one) to consume just a little bit more chocolate.

"We're not ruining Valentine's Day," she said. " We're just making a more informed, happier, healthier consumer. Because who would want to give their sweetie heavy metals?"

http://www.washingtonpost.com/news/to-your-health/wp/2015/02/11/lead-and-cadmium-in-chocolate-nooooooooooo/