



ASHEVILLE INTEGRATIVE MEDICINE

James Biddle, M.D.

Are Chemicals Making Us Fat?

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The global obesity/diabetes epidemic is receiving wide-spread attention like the June 26 article in The Washington Post by David Brown. One-fourth of our national health care bill of \$2.3 trillion is linked to the treatment of diabetes and its complications. Average American life expectancy is now dropping because of this disease complex. Even children are being recommended for gastric bypass.

Fingers everywhere are pointing at the usual suspects: too much junk food and lack of exercise. But there is much more to the story than a recent, contagious lack of discipline among the masses.

A growing body of evidence in animals and humans suggests that many man-made chemicals contaminating our environment mimic some of the body's own hormones like testosterone and estrogen. Researchers have called these chemicals endocrine disruptors because they wreak havoc with endocrine organs like the thyroid, pancreas, testes and ovaries that depend on hormones to develop and function properly. But a new, more relevant term for these chemicals has emerged. They are now also called obesogens.

Exposure to tiny amounts of obesogens during embryonic development has startling effects on animals, resulting in obesity, infertility, feminization of male species, ambiguous sexual characteristics and high death rates.

Wishful thinking by the Environmental Protection Agency and the Food and Drug Administration and outright propaganda from chemical manufacturers have upheld the notion that the doses of human exposure to such chemicals have been too small to matter. Medical science now clearly repudiates such a position and environmental contamination is emerging as a significant contributor to the obesity/diabetes epidemic.(1)(2)(3)(4)(5)

In a remarkable study of over 2,000 Americans those people with the highest blood levels of PCBs, dioxins and pesticides had a rate of diabetes 38 times higher than those with the lowest levels. Just as startling, in the group with the lowest levels of chemical pollutants there was no correlation between diabetes and obesity.(6)

In another study, newborn babies' blood was analyzed for HCB (hexachlorobenzene), a ubiquitous contaminant byproduct of chemical manufacturing processes that use chlorine. Six years later, those same children with the highest blood levels of HCB had a rate of obesity two to three times higher than other children.(7)

Even though the insecticide DDT hasn't been used in this country for 35 years, one of its metabolites, DDE, is still measurable in virtually all of us. People who have higher blood levels of DDE have higher rates of diabetes.(8)

Recently, the lead article in the Journal of the American Medical Association demonstrated increased rates of heart disease and diabetes in people with higher levels of the additive in plastic drinking bottles and food can linings, Bisphenol A (BPA).(9) But these studies merely confirm hundreds of previous studies regarding the far-reaching health impacts of endocrine-disrupting/obesogen chemicals at blood levels most of us and our children live with right now. Many obesogens appear to increase levels of cholesterol and trigger cancer as well. For the first time in 200 years, children now have a shorter life expectancy than their parents, primarily due to obesity and diabetes.

Perhaps most startling of all, it's not just people that are getting fatter. A statistical analysis of more than 20,000 animals, from eight different species, suggests that the obesity epidemic involves family pets, wild animals living in close proximity to humans and animals housed in research centers.(10) Last time I wandered the forest I did not see wild animals sitting around watching NASCAR, eating Cheetos and drinking Mountain Dew. But like humans, they live in an environment contaminated with endocrine disrupting/obesogen chemicals. The air, water and soil of even the most wild and remote places on earth are now contaminated with obesogens from agribusiness food production, growth hormones, pesticides, residues from pharmaceuticals and personal care products, and the rest of the 83,000 chemicals manufactured and emitted by modern industrial society that have penetrated every ecosystem on the planet. In the second half of the 20th century, synthetic chemical production has doubled every seven to eight years with a 100 fold increase over the last two generations. Every year, the world produces six billion pounds of BPA alone and it is detectable in 93 percent of Americans.

Our regulatory agencies and even the courts are still playing by a rule book written by the tobacco industry, which states that we must always wait for unequivocal proof of damage before we can regulate. Of course, there is never unequivocal proof, more study is always needed. But that is not an excuse to not act on the evidence that we already have.

Take a look in the mirror and at your glucometer. If you don't like what you see, you may want to reconsider whether you support the anti-regulation/personal accountability fever sweeping over the country with the new Congress. Whether you can ever be thin again or get over your diabetes may be more a matter of what happens in Congress than what happens on your treadmill.

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10. See here. Dr. Brian Moench is president of Utah Physicians for a Healthy Environment and a member of the Union of Concerned Scientists.