

More Evidence Chemicals Linked to Obesity and Diabetes, Group Says - NBC News

SEP 28 2015, 1:53 PM ET

Article by NBCNews



Evidence is starting to tie hormone-disrupting chemicals to obesity and diabetes, experts said Monday, adding that regulators and researchers need to take steps to reduce human exposure to them.

The chemicals, including bisphenol A and phthalates, are everywhere — and it's not easy to limit how much people eat, drink or take in through the skin, the Endocrine Society said.

"In 2015, there is far more conclusive evidence about whether, when, and how endocrine-disrupting chemicals perturb endocrine systems, including in humans," the society, which groups specialists in diabetes, obesity, thyroid and other hormone systems, said in a new policy statement.

"Thus, it is more necessary than ever to minimize further exposures, to identify new endocrine disrupting chemicals as they emerge, and to understand underlying mechanisms in order to develop methods to enable interventions in cases of endocrine

disrupting chemical-associated disease. This is especially important because new chemicals may be released into the marketplace without appropriate safety testing."

"The evidence is more definitive than ever before - endocrine-disrupting chemicals disrupt hormones in a manner that harms human health."

Some of the suspect chemicals are used in food packaging. Another source is a certain type of coated cash-register receipt. Other possible endocrine disruptors [include dioxins](#) - notoriously found in the herbicide Agent Orange -- PCBs and the insecticide DDT.

"Endocrine-disrupting chemicals contribute to health problems by mimicking, blocking or otherwise interfering with the body's natural hormones. By hijacking the body's chemical messengers, endocrine-disrupting chemicals can alter the way cells develop and grow," the Endocrine Society said.

"The evidence is more definitive than ever before - endocrine-disrupting chemicals disrupt hormones in a manner that harms human health," said Andrea Gore, a pharmacology professor at the University of Texas at Austin and

chair of the task force that developed the statement.

"Hundreds of studies are pointing to the same conclusion, whether they are long-term epidemiological studies in human, basic research in animals and cells, or research into groups of people with known occupational exposure to specific chemicals."

The U.S. Food and Drug Administration [stopped the use of BPA](#) in baby bottled and sippy cups in 2012.

But most of the evidence about the effects of chemicals such as BPAs and phthalates is indirect. Animal studies suggest they can have lifelong effects when unborn fetuses absorb them. But because 90 percent of all humans living today have some evidence of them in their bodies, it's extremely difficult to say what the effects on humans are.

U.S. government toxicologists at the National Institute of Environmental Health Sciences expressed concern in 2008 that BPA may hurt development of the prostate and brain.

The Endocrine Society says uncertainty shouldn't mean inaction.

"Mounting evidence also indicates endocrine disrupting chemical exposure is connected to infertility, hormone-related cancers, neurological issues and other disorders," the group said.

"It is clear we need to take action to minimize further exposure."

"Animal studies found that exposure to even tiny amounts of endocrine disrupting chemicals during the prenatal period can trigger obesity later in life. Similarly, animal studies found that some endocrine disrupting chemicals directly target beta and alpha cells in the pancreas, fat cells, and liver cells. This can lead to insulin resistance and an overabundance of the hormone insulin in the body - risk factors for Type 2 diabetes."

The group called for more research into the chemicals and their effects and said regulators should require that chemicals are tested for their effects on human hormones before they are approved.

"It is clear we need to take action to minimize further exposure," Gore said. "With more chemicals being introduced into the marketplace all the time, better safety testing is needed to identify new endocrine disrupting chemicals and ensure they are kept out of household goods."

It's not clear what action the average person can easily take to avoid the chemicals, besides staying away from packaged foods and animal products -- the chemicals can accumulate in animal fat -- and staying away from sites contaminated with chemicals such as dioxins. Some plastics contain BPA and phthalates and others do not.