

ENDOCRINE DISRUPTOR SCREENING PROGRAM

Why the Endocrine Disruptor Screening Program Is Important

The **endocrine system** is made up of glands, hormones produced by the glands and receptors in various organs and tissues in the body that respond to them. Hormones such as thyroid hormone, growth hormone, estrogen and testosterone regulate reproduction, growth, development and normal bodily functions.

Endocrine disruptors are chemicals that interfere with the hormone system by mimicking natural hormones. They can affect fetal development, interfere with reproduction in women and men, increase cancer risks and disturb functions of the immune and nervous systems. Endocrine disruptors pose serious risks to the health of people and wildlife.

Recognizing growing concerns about the effects of some chemicals on the endocrine system, in 1996, Congress passed the Food Quality Protection Act, which mandated EPA to screen pesticides for their potential to affect estrogen in the body, and authorized EPA to test other chemicals and other endocrine effects. In addition, the 1996 Safe Drinking Water Amendments gave EPA the authority to screen chemicals found in drinking water for their effects on the endocrine system. The federal Endocrine Disruptor Screening and Testing Advisory Committee recommended that EPA expand testing to include thyroid hormone, androgens (male sex hormones), commercial chemicals and ecological effects and that the agency conduct the screening and testing in two tiers. Tier I would identify the potential of a chemical to interact with the endocrine system. Tier II would confirm the interaction, identify the effects, and provide the information needed to assess the risks of the chemical.

How the Program Works

The EPA Endocrine Disruptor Screening Program was created to implement the recommendations of the federal advisory committee; the work has been carried out in several phases. The first phase -- the detection and characterization of the effects of chemicals on the endocrine system -- has been completed. The second phase is the prioritization and selection of chemicals for screening.

To date, EPA has published two lists of chemicals for Tier I screening. Chemicals on the first list were selected on the basis of exposure via four pathways: food, drinking water, residential use and occupational exposure for the pesticides. EPA also considered the results of human biological monitoring, sampling of ecological (fish) tissues, and data for the inert (as opposed to active) ingredients of high production chemicals and pesticides found in drinking water and indoor air. The first list contained 64 active ingredients in pesticides and nine high-production chemical/pesticide inert ingredients. The second list consisted of 68 chemicals found in drinking water and 41 active ingredients in pesticides.

The next and third phase of the program is for EPA to issue orders to pesticide and chemical manufacturers to conduct Tier I screening to identify the potential of some of their products to affect the endocrine system. Orders were issued for the chemicals/pesticides on the first list, but no orders have been issued for the chemicals/pesticides on the second list. The fourth phase will be the preparation of an Integrated Summary Report of the screening data and an independent peer review conducted under a contract.

Consequences if the Program Is Eliminated or Inadequately Funded

The Endocrine Disruptor Screening Program is congressionally mandated, and is the only regulatory program designed to identify and characterize endocrine disrupting chemicals. These chemicals, some of which are ubiquitous in the environment and consumer products, would escape detection and regulation if the program were eliminated, and the tremendous resources already invested in building the program would be wasted. Even a reduction in funding would hamper progress in developing and applying new testing methods and would reduce the number of chemicals to be screened, tested and evaluated. Most important, the use of endocrine disrupting chemicals would continue to proliferate, threatening the health of people and wildlife.

Demonstrated Successes

EPA has been a leader in developing and validating internationally accepted test guidelines for screening and testing chemicals to identify and characterize endocrine disrupting chemicals. EPA has:

- Implemented screening, received data and conducted a review of 73 chemicals on the first list of chemicals identified for evaluation
- Published a final second list of 109 priority chemicals for further evaluation

Funding for the Endocrine Disruptor Screening Program

FY2016 Baseline Budget: \$7.553 million

FY2017 President's Budget Proposal: \$4.329 million

FY2017 Amount Appropriated: \$7.539 million

FY2018 President's Budget Proposal: \$0

FY2018 Amount Appropriated: \$7.502 million

FY2019 President's Budget Proposal: \$0

FY2019 Amount Appropriated: \$7.553 million

FY2020 President's Budget Proposal: \$0