March 30, 2011 -- Families who gave up canned foods and food and beverages prepared and packaged using plastic containers saw their levels of a hormone-disrupting chemical fall by 66%, a new study shows. All it took was three days of eating only freshly prepared, organic foods.

The chemical bisphenol A (BPA) is found in many kinds of plastic food packaging, such as some water bottles, food storage containers, and sealing wrap. It is also used to line the inside of food cans.

BPA is an endocrine-disrupting chemical that has been associated with a host of health problems, including heart disease, diabetes, breast cancer, and infertility in adults, and attention deficit hyperactivity disorder (ADHD) in children.

“The study provides clear evidence that food packaging is the major source of people's exposure to bisphenol A and the phthalate known as DEHP,” says study researcher Ruthann A. Rudel, MS, director of research for the Silent Spring Institute in Newton, Mass.

Phthalates are chemicals that make plastics strong, transparent, and clear.

“And that we found just by substituting fresh foods with limited packaging for three days, we reduced exposure levels in these participants by more than half,” Rudel says.

The study is published in the journal Environmental Health Perspectives.

Avoiding Sources of BPA

For the study, researchers from Silent Spring and the Breast Cancer Fund, in San Francisco, recruited 20 people from five different families in the San Francisco area by posting on listserv sites.

The families were chosen based on answers to questions about how often they ate food from cans, drank water from plastic bottles, drank from an office water cooler, ate restaurant meals, or microwaved in plastic containers -- all sources of exposure to BPA and phthalates.

Monica Laurlund, 40, from Alamo, Calif., signed up her son, daughter, and husband because breast cancer runs on both sides of their family.

“To me, it seemed like an interesting way to find out if I’m being as healthy as I can be,” she says.

Researchers took urine samples from each family member before, during, and after the study to check for levels of BPA and other chemicals found in plastics.

For three days, a caterer who had been specially coached to avoid preparing food exposed to chemicals from plastics delivered meals prepared from fresh and organic fruits, vegetables, grains, and meats.

The cooks were instructed to avoid contact with plastic utensils, and nonstick cookware and foods had to be stored in glass containers with BPA-free plastic lids. Researchers even told food preparers not to overfill the containers so the food wouldn’t touch the plastic lid.

Microwaving in plastic was out; so was using coffee makers with plastic parts. Coffee drinkers got their morning coffee from French presses or ceramic drip models.

Participating families gave up water in plastic bottles in favor of stainless steel.