Phthalate Exposure and Health Risks

Phthalates are a group of chemicals that are present in many household items. These chemicals are often used to make plastics more flexible and harder to break, and sometimes they are used to dissolve other materials.

Phthalates are present in hundreds of products, including vinyl flooring, plastic clothes such as raincoats, and personal care products such as shampoos. In laboratory experiments, women often have higher levels of phthalates compared with men; this is thought to be linked to women's higher uses of personal products such as lotions, cosmetics, and hair products. Phthalates are often present in children's toys. People get close exposure to phthalates by eating and drinking foods that have touched containers and products that are made of phthalates, especially microwaving foods that are in phthalate-laden containers. Young children may have a greater risk of being in contact with phthalates by putting toys or other things that contain phthalates in their mouths.

Once phthalates are in a person's body, the body breaks them down into products, called *metabolites*, that pass quickly out in urine.

There are many questions about how phthalates may affect people's health. Some types of phthalates affected the reproductive system of laboratory animals. Some studies in women have found that exposure to phthalates has been linked to disrupted thyroid hormone levels, increased levels of oxidative stress, and illnesses such as endometriosis and breast cancer. However, how phthalates affect human health and at what levels are still not completely understood.

One risk to health from exposure to phthalates that has been investigated is the risk of preterm birth. A research study in this month's *JAMA Pediatrics* issue studied pregnant women's exposure to phthalates and risk of preterm birth. The study found an increase in the risk of preterm birth for women who had higher phthalate metabolite concentrations in their urine during pregnancy. The researchers concluded that pregnant women may wish to reduce their exposures to phthalates during pregnancy. Phthalate exposure can be reduced by eating fresh foods—foods that are not packaged in cans or plastic. Phthalate exposure may also be reduced during pregnancy by avoiding or limiting the use of cosmetic products such as fragrances, nail polish, body lotions, and hair spray.

FOR MORE INFORMATION

Centers for Disease Control and Prevention:
http://www.cdc.gov/biomonitoring/Phthalates_FactSheet.html

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