



Di(2-ethylhexyl)phthalate (DEHP)

Why am I being warned about potential exposure to DEHP?



- DEHP is on the [Proposition 65](#) list because it can cause cancer and birth defects or other reproductive harm.
- Exposure to DEHP may increase the risk of cancer, and may also harm the male reproductive system.
- Exposure to DEHP during pregnancy may affect the development of the child.
- Proposition 65 requires businesses to determine if they must provide a warning about significant exposure to [listed chemicals](#).

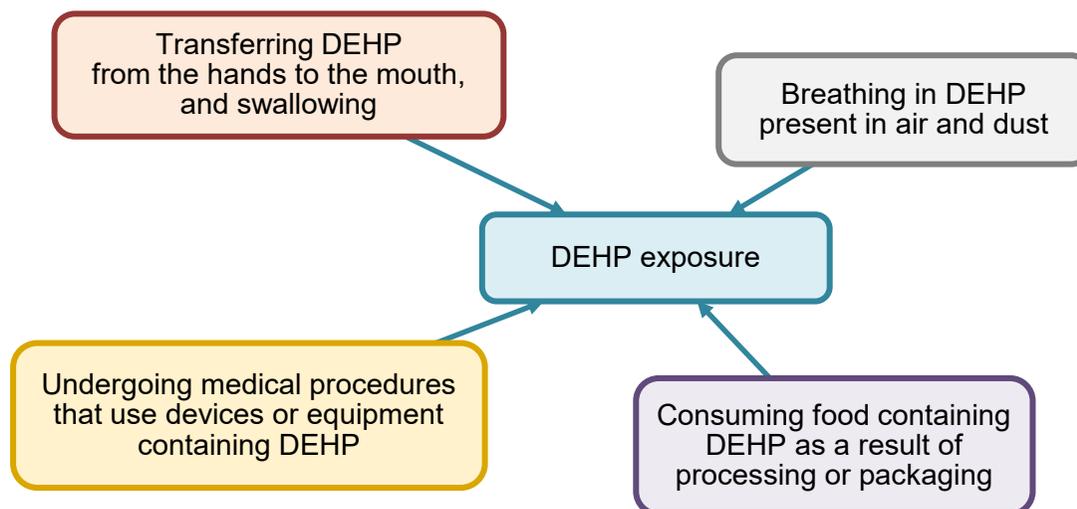
What is DEHP?

- DEHP belongs to a family of chemicals called phthalates, which are added to some plastics to make them flexible. In the past, DEHP was one of the phthalates most frequently used in plastic products, but its use has decreased in recent years for a variety of reasons.
- DEHP is still used in various types of plastic consumer products, including some:
 - ▶ Shower curtains, furniture and automobile upholstery, garden hoses, floor tiles, and coverings on wires and cables.
 - ▶ Rainwear and shoes.
 - ▶ Lunchboxes, binders, and backpacks.
 - ▶ Plastic food packaging materials.
 - ▶ Medical devices and equipment, including some types of blood and intravenous solution bags, tubing for dialysis, feeding tubes, oxygen masks, and surgical gloves.
- California law prohibits the manufacture, sale, or distribution of all children's toys and child care articles containing DEHP at levels greater than 0.1%. Federal law has a similar prohibition.

How does exposure to DEHP occur?

- DEHP can be gradually released from consumer products into indoor environments such as homes, schools, daycare centers, offices, and cars. It settles on floors and other surfaces, and can accumulate in dust and air.
- Exposure can result from contact with medical devices or during medical procedures in which devices or equipment containing DEHP are used.
- Low levels of DEHP have been detected in some foods that have been in contact with plastics during processing and packaging.
- During pregnancy, DEHP can pass from mother to baby.

Some ways you can be exposed to DEHP:



How can I reduce my exposure to DEHP?

- ❌ Avoid plastics known as polyvinyl chloride (PVC) or vinyl (with recycle code 3).
- ✓ Prior to undergoing medical procedures (especially recurring ones like dialysis), plan ahead by requesting medical devices or equipment that do not contain DEHP. This is especially important for protecting boys from the reproductive effects of DEHP (during pregnancy, in infancy, and around the time of puberty).
- ✓ Minimize exposure to dust, which can contain DEHP:
 - ▶ Wash your hands and your child's hands frequently, especially before preparing food, and before eating.
 - ▶ Clean floors regularly, using a wet mop or a vacuum cleaner with a high-efficiency particulate air (HEPA) filter, if possible.
 - ▶ Wipe up dust regularly, using a damp cloth.
- ✓ Eat more fresh food, and less processed and packaged food.

For more information:

General Fact Sheets and Resources

- US Department of Health and Human Services (HHS)
Agency for Toxic Substances and Disease Registry (ATSDR)
 - ▶ Toxic Substances Portal. Di(2-Ethylhexyl)Phthalate (DEHP)
<https://wwwn.cdc.gov/TSP/substances/ToxSubstance.aspx?toxid=65>

Scientific Information on DEHP

- California Environmental Protection Agency (CalEPA)
Office of Environmental Health Hazard Assessment (OEHHA)
 - ▶ Toxicological Profile for Di(2-ethylhexyl) Phthalate (DEHP)
http://www.opc.ca.gov/webmaster/ftp/project_pages/MarineDebris_OEHHA_ToxProfiles/DEHP%20Final.pdf
- World Health Organization
International Agency for Research on Cancer (IARC)
 - ▶ IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 101 (2013). “Di(2-ethylhexyl)phthalate” in Some Chemicals Present in Industrial and Consumer Products, Food and Drinking-water, pages 149-284.
<https://monographs.iarc.fr/ENG/Monographs/vol101/mono101-006.pdf>

Proposition 65

- California Environmental Protection Agency (CalEPA)
Office of Environmental Health Hazard Assessment (OEHHA)
 - ▶ Proposition 65: Background
<https://www.p65warnings.ca.gov/faq>
 - ▶ Proposition 65: The List of Chemicals
<https://www.p65warnings.ca.gov/chemicals>
 - ▶ Proposition 65: Fact Sheets
<https://www.p65warnings.ca.gov/fact-sheets>