

Phthalates

What are phthalates?

Phthalates are a family of industrial chemicals that are used as plastic softeners or solvents in many different consumer products. Many are colourless, scentless, flavourless and have low volatility.

Where are they found?

Phthalates are widely used in the manufacture of plastics, to make them soft and flexible. They are also used in laboratory and medical devices. Some are also used as solvents. Phthalates are always incorporated with other materials (such as PVC) into an end product.



Human Biomonitoring of phthalates

The concentration of phthalates is generally measured in human blood and urine. As most of the phthalates are rapidly broken down into simple compounds, they are quickly passed out in urine and can be easily measured with biomonitoring. Finding a measurable amount of phthalates in blood or urine does not necessarily mean that these levels cause an adverse health effect.

How are we exposed?

Due to their versatile uses, phthalates are found everywhere. People can be exposed by eating and drinking foods that have been in contact with phthalates. They are also found in everyday items such as raincoats, shoes, and personal care products (cosmetics, shampoos, body lotions and perfumes).

Another source is contaminated indoor air (e.g. from phthalate-containing plastic products at home or work places such as vinyl flooring).

Children are easily exposed to them by sucking on plastic toys and through particles in house dust because of hand-to-mouth behaviour.

How can it affect us?

Human health effects from low-level exposure to phthalates remain unknown. However, continuous and repeated exposure to higher levels of certain phthalates may affect the hormonal system.

It is generally acknowledged that more research is needed to assess the exact health effects of exposure to phthalates.

Ways to reduce exposure

- Check the labels and use phthalate-free containing products when possible
- Regularly clean the house to remove dust
- Eat fresh produce rather than processed and pre-packed foods.

