

Healthy Kids Organophosphorus Flame Retardants Information

Flame retardants are chemicals added to many kinds of products to make it harder for them to catch on fire. Organophosphorus flame retardants (OPFRs) are one type of flame retardant. Due to their widespread use, OPFRs are commonly found in indoor and outdoor environments.

Scientists are still studying how these flame retardants affect people's health. Some may interfere with the body's natural hormones, which can affect development in infants and children. Some may harm the nervous system, reproductive system, or cause cancer.

Finding OPFRs in children's urine is common and does not mean their health will be affected. Scientists are still learning what levels may be unsafe.

For more information and resources, please visit our webpage:



Healthy Kids MN
health.mn.gov/
HealthyKidsChemicals

Where Can OPFRs Be Found?

1

To reduce flammability, **OPFRs** are added to products like:

Building insulation foam

Furniture and upholstery

Car interiors

Car seats

Toys made of urethane foam (such as blocks and play mats)

Mattresses

Electronics

Carpeting

2

OPFRs gradually leach from products and get into air and dust inside homes and vehicles.

3

Children can be exposed by:

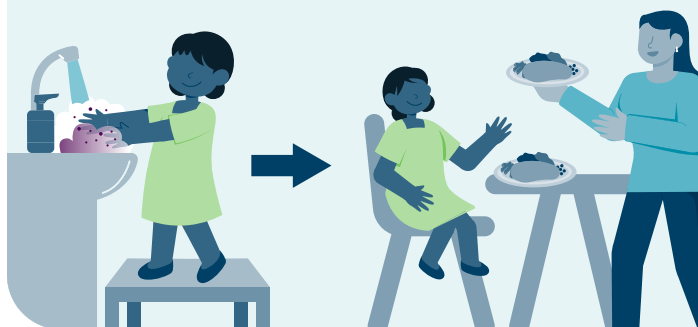
- Breathing in air and dust
- Swallowing dust when putting hands or objects in their mouth
- Direct contact with products
- Crawling and playing on the floor, which increases contact with dust

How You Can Lower Exposure to OPFRs

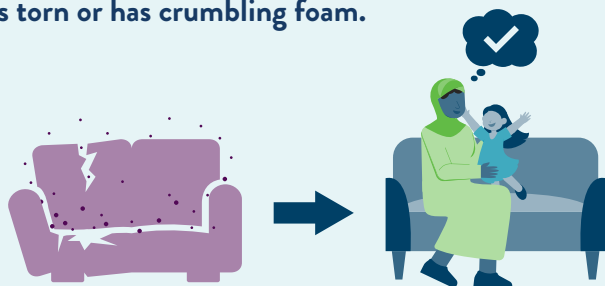
Regularly clean floors and surfaces in your home to keep dust from building up.



Have your child wash their hands before eating.

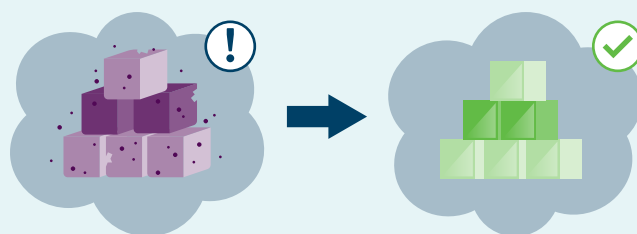


Replace upholstered furniture that is torn or has crumbling foam.



Furniture may have an attached label indicating whether the upholstery contains added flame retardant chemicals (but not which ones). For other products, you can contact the company to ask about added flame retardants.

Consider replacing old products for children that contain urethane foam.



Since 2019, Minnesota law has restricted the amount of certain OPFRs in children's products, mattresses, and residential upholstered furniture. Older products (before this restriction) may contain higher levels of some OPFRs.

OPFRs Tested in Your Child's Urine

OPFRs change into related chemicals once inside the body. We call these "breakdown products." Healthy Kids Minnesota measured breakdown products of OPFRs in your child's urine. Flame retardants and their breakdown products have long chemical names so we use common abbreviations in your child's results sheet.

BCeTfP BCPP BDCPP DBuP DBzP
DCP DPhP TBBA iPPPP tBPPP



For more information on the full chemical names, please visit:
health.mn.gov/HealthyKidsResults

www.health.mn.gov
To obtain this information in a different format, email:
health.biomonitring@state.mn.us

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For more information and resources, please visit our webpage:
health.mn.gov/healthykidsmn