Children's Potential Exposures to Formaldehyde from Building Furnishings (e.g., laminate flooring) for Parents and Families

Children are more impacted by some certain environmental hazards because their bodies are smaller compared with the same exposure an adult might experience and also their bodies are still developing. Crawling or playing on the floor or ground may bring them closer to the hazard.

Formaldehyde:

- Is normally produced by our bodies.
- Is one of the most common indoor air pollutants.
- Can be found in hundreds of household materials, home furnishing, "permanent press" clothing, personal care products (like cosmetics) and building materials (e.g., laminate flooring, walls, cabinets, carpet).
- Is found in smoke from cigarettes and other tobacco products, gas stoves, and open fireplaces.
- Can be found in smog.

Health Effects:

- Formaldehyde can come out of the building materials or other products that are made with it. This is called off-gassing, which produces very low levels of formaldehyde in the air. These low levels can cause scratchy or watery eyes, irritated throat, runny nose, and irritated skin.
- People with asthma may have trouble breathing (may wheeze) when they are exposed to formaldehyde.
- People exposed to high levels of formaldehyde for a long time can develop inflammation and irritation of the throat and the lungs. This type of exposure would most likely occur on the job and not at home from furniture or wood for the floor.
- Women exposed to formaldehyde may have trouble with their menstrual periods.
- Formaldehyde can cause cancer. Exposure to formaldehyde for over many years can increase the risk of cancer.

Reduce Potential Exposure

There are many ways to reduce exposure. Usually source removal is the first step in in Industrial Hygiene practice to decrease exposure. Additional options include:

- Use products that are urea formaldehyde free.
- Do not smoke, especially indoors because the smoke contains formaldehyde.
- Let new products off-gas somewhere outside of your living space.
- Wash permanent-press curtains and clothing before using them.
- During installation and even shortly thereafter, increase ventilation. (Although if your

child has asthma, if outdoor air pollution or pollen are triggers, be aware that this might also increase those exposures).

• Try to keep temperature and humidity as low as possible because release of formaldehyde is directly associated with increases in temperature and humidity.

Q: Should my child be tested?

A: No. Testing blood or urine does not tell your doctor or nurse how much formaldehyde has gotten into your child. The results will not tell your nurse or doctor what to do about the situation.

Q: Should I conduct indoor air testing?

A: Testing indoor air is generally not needed. There are simple steps to reduce exposure (see "Recommendations" above). Contact your regional pediatric environmental health specialist (<u>www.PEHSU.net</u>) for more information.

MORE INFORMATION

ATSDR ToxFAQ: Formaldehyde

CARB Factsheet

Protect Against Exposure on Formaldehyde (EPA)

FAQs from EPA on Laminate Flooring

This material was supported by the American Academy of Pediatrics (AAP) and funded (in part) by the cooperative agreement FAIN: U61TS000237 from the Agency for Toxic Substances and Disease Registry (ATSDR).

This material was supported by the American College of Medical Toxicology (ACMT) and funded (in part) by the cooperative agreement FAIN: U61TS000238 from the Agency for Toxic Substances and Disease Registry (ATSDR).

Acknowledgement: The U.S. Environmental Protection Agency (EPA) supports the PEHSU by providing partial funding to ATSDR under Inter-Agency Agreement number DW-75-92301301. Neither EPA nor ATSDR endorse the purchase of any commercial products or services mentioned in PEHSU publications.