

Formaldehyde Laminate Flooring

Clinician Fact Sheet

What is formaldehyde?

Formaldehyde is a colorless, pungent, irritant gas at room temperature. Formaldehyde is a normal byproduct of our body's metabolism and is also found naturally in our diet.

Formaldehyde is a common indoor air pollutant due to its use in many household products and building materials, especially those containing urea-formaldehyde¹. The release of formaldehyde into the air is called off-gassing and may occur for weeks to months.

Formaldehyde off-gassing occurs from:

- Household and building materials (engineered wood flooring, walls, carpet)
- Furniture (wood finishes, cabinetry)
- Permanent press fabrics
- Personal care products
- Smoke (e.g., from fireplaces, cigarettes, gas stoves)

What are the health effects of formaldehyde exposure?

Health effects from exposure to low levels of formaldehyde in air may include:

- Headaches
- Irritation of the mucus membranes of the eyes, nose, and throat
- Skin rashes
- Cough
- Shortness of breath
- Bronchospasm and wheezing, especially for sensitized persons including people with asthma

Children, the elderly, and people with asthma and other breathing problems may be more sensitive to the effects of formaldehyde. Long-term exposure to high concentrations of formaldehyde (which may occur in certain occupational settings) can elevate the risk of sinonasal cancers, nasopharyngeal cancers and myeloid leukemia.

How can I manage patients with health effects related to formaldehyde?

- Symptoms due to irritation are usually mild and do not require specific therapy
- Treat bronchospasm and wheezing with supplemental oxygen and aerosolized bronchodilators
- Recommend actions to decrease further exposure to formaldehyde by:
 - Opening windows and ventilating area to remove formaldehyde
 - Stopping smoking, especially indoors because tobacco smoke contains formaldehyde
 - Buying wood products that are labeled urea-formaldehyde (UF)¹ free or meet the ultra-low emitting formaldehyde (ULEF) or no added formaldehyde (NAF) requirements.

Continued on next page

¹ Urea-formaldehyde (UF) is a resin or plastic made from urea and formaldehyde that is used in a number of adhesives and finishing materials.

- Maintaining temperature and humidity levels at the lowest comfortable setting to reduce off-gassing of formaldehyde

What tests are available for measuring formaldehyde?

- Although there are tests for formaldehyde and its breakdown products in blood or urine, they are not a good measure of exposure and are not clinically useful.
- Most homes have some level of formaldehyde and this level can vary from day to day. Although there are tests available to measure formaldehyde in your home air, they do not tell you what product(s) is the source of the formaldehyde.

More Information

- If you have questions or concerns about the products being used in homes, contact the Consumer Product Safety Commission at (800) 638-2772.
- You can also contact CDC/ATSDR for updated information on this topic at 1-800-CDC-INFO or visit our [website](#).
- For medical treatment of formaldehyde exposure, you can call your [regional poison control center](#): 1-800-222-1222.
- [CPSC update on formaldehyde](#)
- [EPA Questions and Answers Regarding Laminate Flooring](#)
- For information on formaldehyde and cancer, visit the [National Toxicology Program \(NTP\) Report on Carcinogens, Thirteenth Edition, Formaldehyde](#).