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Take Control of Your Health

How This Chemical in Everyday Products Might Be Harming Your Health

Analysis by Dr. Joseph Mercola | February 05, 2025

STORY AT-A-GLANCE

- Formaldehyde, a common chemical in household products like furniture and building materials, poses significant health risks including cancer, asthma and fertility problems, according to investigations by the U.S. Environmental Protection Agency (EPA)
- A long-awaited EPA report, released in 2024, downplayed formaldehyde risks, particularly for workers and people near industrial zones, amid pressure from chemical industry groups and political figures
- Formaldehyde "off-gases" from products over time, especially in warm environments, making it particularly concerning in indoor spaces like homes and workplaces where people spend significant time
- Studies show formaldehyde exposure increases asthma risk in children, and each increase of 10 micrograms per cubic meter leads to a 10% higher risk
- Consumers will be able to reduce exposure by ensuring good ventilation, choosing low-emission products, letting new furniture air out and staying informed about product labels and safety standards

Visualize yourself walking into a new home and noticing a strange, sharp smell. While you may think it's coming from the fresh coat of paint, that smell also lurks in cleaning products or even your brand-new furniture. This invisible culprit in your home is formaldehyde, a chemical found in many everyday products.

Formaldehyde Is Dangerous to the Public

While formaldehyde has various industrial uses, an investigation by ProPublica[1] on a report[2] by the U.S. Environmental Protection Agency (EPA) raises concerns about its potential health risks in our daily lives.[3] Specifically, it's been found to cause cancer more compared to other chemicals released in the air, and that it also causes a host of other health issues, such as asthma, miscarriage and fertility problems.[4]

However, the report doesn't end there. What's more concerning is that the EPA downplayed the threat formaldehyde poses to people living in factories and industrial zones that release it into the air. Why? The most logical answer is that the chemical industry is colluding with certain high-ranking government officials. As noted in ProPublica's analysis:[5]

> *"While a note accompanying the EPA's report stated that workers have the greatest exposure to the chemical, the agency's risk assessment adopted weaker standards for protecting workers from formaldehyde than had been proposed in a previous draft …*
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> *But even before the agency released the report, House Republicans urged the administration to invalidate it. And a chemical industry group immediately attacked the report as flawed, accusing the EPA of 'pursuing unaccountable lame duck actions that threaten the U.S. economy and key sectors that support health, safety and national security' …*
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> *When Trump first assumed office in 2017, the agency was preparing to publish a report on the toxicity of the chemical. But one of his EPA appointees, who was given a high-ranking role in the agency's Office of Research and Development, was a chemical engineer who had worked to fend off the regulation of formaldehyde as an employee of Koch Industries, whose subsidiary made formaldehyde and many products that emit it.*
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> *The report was not released until August 2024, long after Trump's appointee left the agency."*

As noted in ProPublica's investigation, the previous draft of the EPA's report, created back in March 2024, already had a final assessment saying that the health risks "are not unreasonable." To make things worse, both the first and final drafts concluded that "formaldehyde in outdoor air isn't a threat that needs to be addressed."

This puts the people living near industrial areas (known as fence line areas) at risk with little hope of government protection because the regulations aren't leaning towards their health and safety.[6]

What Is Formaldehyde and Where Do We Encounter It?

Formaldehyde is a simple organic molecule, similar to the building blocks of other familiar chemicals like sugar and vinegar. In its pure form, it's a gas with a pungent odor. However, it's often used in a liquid form combined with other chemicals in various products.

Think of pressed wood furniture like desks, bookshelves or cabinets. The glue that holds these wood pieces together often contains formaldehyde. Similarly, building materials like plywood, laminate flooring and even some types of insulation contain formaldehyde. Beyond construction materials, formaldehyde is found in certain glues, some fabrics like wrinkle-free clothes and even nail polish removers.

One of the main concerns with formaldehyde is its tendency to "off-gas," meaning it slowly releases from these products as a gas over time, especially in warm or humid environments. This invisible gas then becomes part of the air you breathe indoors. Interestingly, the "new car smell" you experience is partly due to formaldehyde off-gassing from interior materials.[7]

While everyone encounters some level of formaldehyde throughout life, certain professions have a higher risk of exposure. For example, employees in tire manufacturing plants, hairdressers who use products with formaldehyde-based preservatives and furniture makers are at increased risk of inhaling higher levels.[8]

The Unreasonable Risk — Formaldehyde and Health Concerns

According to the U.S. Centers for Disease Control and Prevention (CDC), formaldehyde exposure causes a range of health problems, depending on the level and duration of exposure. Generally, it irritates the eyes, nose and throat.[9] This is similar to the discomfort you experience from exposure to strong cleaning products.

But, as noted by the ProPublica report, there's a more concerning issue — the link between formaldehyde exposure and an increased risk of certain cancers, particularly nasopharyngeal cancer.[10]

Beyond cancer, formaldehyde exposure is also linked to respiratory problems like asthma, especially in children. In one study, researchers noted that children exposed to formaldehyde at home are more likely to develop asthma. Specifically, they noted that each time formaldehyde exposure increases by 10 micrograms per cubic meter, the risk of asthma also goes up by 10%.[11]

Industry vs. Regulations — Who Will Prevail?

The EPA report concluded that formaldehyde exposure poses an "unreasonable risk" to human health, raising concerns for consumers and prompting calls for stricter regulations.[12,13] But, as the ProPublica report stated, the EPA was criticized for its initial assessment.

The American Chemistry Council argues that stricter regulations will significantly impact jobs and the economy since formaldehyde is a "building block" chemical.[14,15] Regulations for improved safety are currently under attack as well. Unsurprisingly, the EPA gave in:

> *"Compared to the draft published in March, which was heavily criticized by industry, the final version contained weaker standards for protecting workers. The acceptable levels of workplace formaldehyde exposure set in the final*

version of the assessment were significantly higher than the levels in the earlier draft of the report …

Last month, Rep. Pete Sessions, R-Texas, urged the incoming administration to make revisiting the Biden EPA's work on formaldehyde 'a top priority for 2025.'

In a letter to Lee Zeldin, Trump's pick to run the agency, Sessions derided this week's report as 'based upon unscientific data that was utilized by unaccountable officials at the EPA to tie the hands of the new Administration and hamper economic growth.' (The letter was first reported by Inside EPA.)

Sessions, who is a co-chair of the new Delivering Outstanding Government Efficiency caucus and a staunch ally of Trump, recommended scrapping the EPA's assessments of formaldehyde and reversing course on 'broader Biden policies' on chemicals."

The ongoing debate must center on finding the right balance. Stricter regulations will lead to the development of safer alternative materials and practices. However, immediate changes will have economic consequences. As such, scientists, government agencies and industry leaders should work together to find solutions that prioritize both public health and economic stability.

Simple Steps for a Safer Home

Based on the published reports, it's clear that formaldehyde presents a clear danger to your health. While authorities figure out a way to balance regulations and economic growth, there are several strategies available to minimize your exposure to formaldehyde at home and create a healthier environment.

The first step is prioritizing good ventilation. Open windows and doors whenever possible to allow fresh air to circulate and dilute any formaldehyde off-gasing. Additionally, use exhaust fans in kitchens your kitchen, making sure to turn them on whenever you're cooking.[16]

When purchasing new furniture or building materials, look for products labeled as "low-emission" or "formaldehyde-free." These products are designed to release minimal amounts of formaldehyde into the air. While they may be slightly more expensive, the long-term health benefits are worth considering. Most furniture is made using different wood composites held together by glue to bind everything together. As noted in a January 2025 report by Children's Health Defense:[17]

> *"The adhesives used in this type of furniture can contain formaldehyde, which goes through a process called off-gassing, where the chemical is released into the air over time. Federal regulators have set limits on how much of the chemical some composite woods can release.*
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> *But those limits, set more than a decade ago, are still well above the level that EPA scientists recently established to protect people from asthma, allergic reactions and other breathing problems.*
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> *So, at the very least, you want to look at the item's packaging for a label that shows it is compliant with the standards set under the Toxic Substances Control Act (TSCA)."*

Another helpful tip is to let new furniture or carpets air out in a well-ventilated space for several days before bringing them indoors. This allows most of the initial formaldehyde to off-gas before you start using the furniture.[18]

Stay Informed for a Healthy Future

Staying informed about the latest research and regulations regarding formaldehyde exposure is crucial for protecting you and your family's health. Aside from government health agencies, various public organizations provide up-to-date information on the health risks and best practices for minimizing exposure. Frequently reading up on these sources will help you stay informed about any new findings or changes in regulations.

Consumer awareness and advocacy play a significant role in influencing industries to adopt safer practices. Thus, where you spend your money will be noticed by

manufacturers.

By choosing products from companies that prioritize low emissions and transparency about their materials, consumers will eventually push manufacturers away from using formaldehyde. Supporting companies that prioritize health and safety sends a powerful message and encourages innovating safer alternatives.

Being aware of the symptoms of formaldehyde exposure is also important. If you have related concerns, especially if you experience persistent symptoms like respiratory problems, skin irritation or other unusual health issues, it's important to discuss them with your doctor. They'll assess your risk and provide personalized advice.

Taking Control of Your Indoor Air

Finally, consider adding some greenery to your home. Certain houseplants have been shown to help remove formaldehyde and other toxins from the air. While they won't eliminate formaldehyde entirely, they'll be able to contribute to a healthier indoor environment. For a list of the plants, read my article "**The Importance of Reducing Indoor Pollution**." There, I give other tips, such as using a high-quality air purifier and cleaning appliances regularly.

The health risks associated with formaldehyde exposure, as highlighted by the ProPublica report, are a legitimate concern because most people are exposed to it. However, by taking proactive steps to minimize exposure in your home and workplace, you'll significantly reduce your risk. Again, remember to turn on ventilation when cooking, choose low-emission products and be mindful of off-gasing from new items to make a real difference on your health.

While the issue of formaldehyde seems overwhelming considering how ubiquitous it is, remember that you have the power to make informed choices that help you take control of your health.

Sources and References

- [1, 3, 4, 5, 6, 12, 15] ProPublica January 3, 2025
- [2, 10, 13] EPA, December 2024
- [7] Forbes, April 15, 2023
- [8] Indoor Air. 2021 Oct 27;32(1):e12949, Results
- [9] U.S. CDC, Agency for Toxic Substances and Disease Registry, Public Health Statement for Formaldehyde
- [11] Indoor Air. 2020 Jul;30(4):682-690, Abstract
- [14, 17, 18] Children's Health Defense, January 3, 2025
- [16] P65 Warnings, Formaldehyde