

A View Indoors

If it smells good and fresh, is it good for my indoor air and me?

An odor is something that you can smell. Odors or smells can come from natural things, such as plants, flowers or animals. They also come from man-made chemicals or substances. Odors can bring back good and bad memories or change your mood. For example, when you smell fresh baked breads and cakes you may think about being happy and safe at home, while a medicinal smell may remind you of sad feelings or cause you to relive symptoms from a previous illness.

Often people make assumptions about the quality of their indoor air based on what they smell or whether anyone complains about odors or smells. Some people make decisions about what to buy or about their personal or indoor environmental safety based on odor. For example, you may think that a pleasant odor or an odor from a natural source—or no smell at all—is better or safer, whereas, if something smells bad or comes from something which is man-made, you might think it is unhealthy or unsafe. However, the reality is that you cannot always tell how harmful something is by its odor.

Sometimes an odor comes from a specific chemical that can cause or worsen physical symptoms in sensitive individuals. However, in some cases, the chemical in a product causing the odor is completely different from the chemical in the product that might cause a physical reaction.

You should not rely on odor or complaints about smells to determine what is good or safe for your health or your indoor environment. Some things with odors, like vinegar, are harmless for most people when used properly. Other things—like radon and carbon monoxide—can be harmful but are odorless. Sometimes chemicals can cause you to feel sick before you notice any odor. Some people also experience “olfactory fatigue,” which is a deadening of the sense of smell. This can happen soon after the first odor sensation occurs, especially if it is a very strong odor. People with olfactory fatigue become much less aware of the odor as time passes and in some cases have trouble detecting all odors.

Three Steps to Controlling Indoor Odors

1. Limit the use of products or practices that cause odor problems.
2. Reduce exposure to odors that may cause problems for you or others.
3. Provide adequate ventilation for your indoor environment.

What about complaints concerning odors? You might think if no one or very few people complain about odors in an indoor space, then there is no problem and the indoor environment is safe and healthy, right? Not necessarily. Actually, individuals in the same environment may describe or react to a particular odor differently. Descriptions or reactions can vary based on many factors, such as:

- The source of the odor.
- The amount of ventilation within the space.
- The amount of time spent in the space.
- The sensitivity of the person to that odor.
- Any previous experiences with that source or similar odors.

For example, some people are very sensitive to moldy and musty smells in seemingly dry spaces, whereas others may not notice these odors even in visually damp and moldy areas. Just the choice of words or the tone you use to describe an odor can change how a person feels about the odor. If someone asks, “What’s that smell?” you may initially think of something that smells bad. Yet, if someone asks, “What is that fragrance?” many people think of something that smells pleasant or agreeable.

Addressing indoor odor issues, especially for groups, can be difficult for two reasons:

1. Odor is not a reliable test for the quality of indoor air.
2. Individuals vary in their reactions to a particular odor.

In spite of these difficulties, there are three basic steps you can take to protect yourself and others from problems with odors indoors.

1. Limit the use of products or practices that may cause odor problems.

- Minimize the use of products or practices that emit odors that might be harmful. Use the least toxic, lowest-emitting products, materials and practices you can. Be aware that even products labeled “natural,” “safe,” “odor-free” or “unscented” can contain chemicals that may be problematic for some people, especially if overused or misused.
- Keep indoor environments dry to prevent mold growth and musty odors.
 - Reduce indoor humidity to between 30–60%.
 - Prevent condensation. Reduce the potential for condensation on cold surfaces—windows, piping, exterior walls, roof or floors—by adding insulation. Do not install carpet near drinking fountains and classroom sinks, or on concrete floors where there are leaks or frequent condensation.
 - Fix leaky plumbing or other sources of water.
 - Clean and dry any damp or wet building materials and furnishings within 48 hours.
 - Remove any absorbent materials (such as ceiling tiles and carpet) that cannot be dried thoroughly.

2. Reduce your and others' exposure to odors that may cause problems.

- Talk to others sharing your environment when planning to use a product or material with a strong odor. Be sensitive to the health and other sensitivities of those who will be exposed.
- Whenever possible, avoid or limit the use of products, materials or practices with strong fragrances or odors, especially if someone is sensitive to them.
- Minimize the use of powdered or spray products with odors that can disperse throughout an area. If using a spray, consider spraying the product on a cloth or sponge instead of a surface or into the air. Always spray in a direction away from people.
- Avoid using products or materials with strong odors in or near air intakes of a shared ventilation system.

3. Make sure your indoor environment is well ventilated.

Ventilation can replace indoor air with fresh air from the outdoors. Too little ventilation can increase the amounts of indoor contaminants by not bringing in enough outside air to dilute them or by not flushing them out of the indoor space. When odors are an issue, increase ventilation by increasing the amount of outdoor air brought inside by mechanical systems, opening doors and windows, and using portable fans or using local fans that exhaust to the outside, such as those found in some kitchens or bathrooms.

For more information on related indoor air issues:

General Indoor Air Issues www.epa.gov/iaq

IAQ in Homes www.epa.gov/iaq/homes/index.html

IAQ in Schools www.epa.gov/schools

Health Effects from Indoor Contaminants www.epa.gov/iaq/ia-intro.html#Pollution_and_Health

Ventilation www.epa.gov/iaq/homes/hip-ventilation.html

Mold www.epa.gov/mold

Indoor Environmental Asthma Triggers <http://www.epa.gov/asthma/triggers.html>